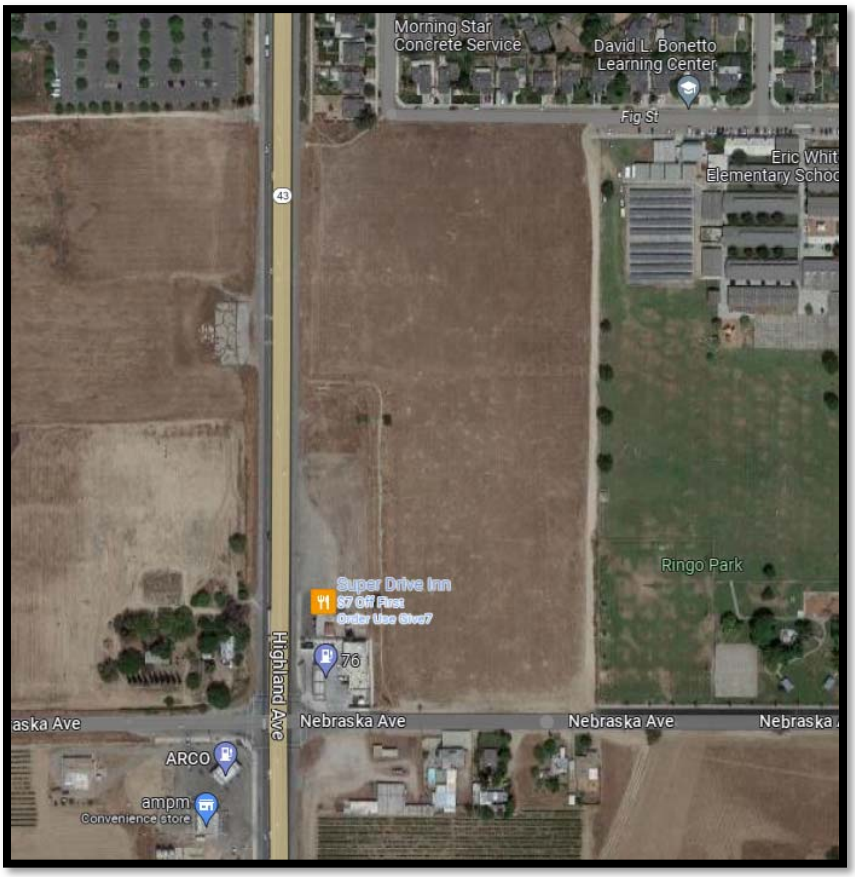
City of Selma

Selma Multi-Family Residential and Commercial Project
Initial Study and Mitigated Negative Declaration



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October 2023

City of Selma

Selma Multi-Family Residential and Commercial Project
Initial Study and Mitigated Negative Declaration

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CITY OF SELMA
INITIAL STUDY AND ENVIRONMENTAL CHECKLIST

Selma Multi-Family Residential and Commercial Project

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: The proposed project could have a "Potentially Significant Impact" for environmental factors checked below. The purpose of the following discussion is to provide a supplement to the project Environmental Impact Report (EIR) that provides the required impact analysis for the remaining issue areas under CEQA Appendix G.

☐ Aesthetics	☐ Greenhouse Gas Emissions	☐ Public Services
☐ Agriculture & Forestry Resources	☐ Hazards & Hazardous Materials	☐ Recreation
☐ Air Quality	☒ Hydrology & Water Quality	☒ Transportation
☒ Biological Resources	☐ Land Use & Planning	☐ Tribal Cultural Resources
☒ Cultural Resources	☐ Mineral Resources	☐ Utilities & Service Systems
☐ Energy	☒ Noise	☐ Wildfire
☒ Geology & Soils	☐ Population & Housing	☒ Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation, the City of Selma finds that:

☐ The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Jeff Oliveira, Principal Environmental Planner		10/3/2023
Prepared by (Print)	Signature	Date
Trevor Stearns, City Planner	Trevor Stearns	10/11/2023
Lead Agency Rep. (Print)	Signature	Date

Project Environmental Analysis: The City of Selma environmental review process incorporates all of the requirements for completing the Initial Study as required by the California Environmental Quality Act (CEQA) and the CEQA Guidelines. The Initial Study includes on-site inspection of the project site and surroundings and a detailed review of the information in the file for the project. In addition, available background information is reviewed for each project. Relevant information regarding soil types and characteristics, geologic information, significant vegetation and/or wildlife resources, water availability, wastewater disposal services, existing land uses and surrounding land use categories and other information relevant to the environmental review process are evaluated for each project. The City of Selma uses the Initial Study checklist to summarize the results of the research accomplished during the project environmental review.

Persons, agencies, or organizations interested in obtaining more information regarding the environmental review process for a project should contact the City of Selma Department of Community Development Department at 1710 Tucker Street, Selma, CA 93662 (559-891-2200).

1. PROJECT DESCRIPTION: Applicant proposes to design and develop approximately 16 acres on an undeveloped property located at the northeast corner of Highland Avenue (State Route 43) and Nebraska Avenue in the City of Selma, California. The proposed development includes 144 multi-family dwelling units (R-3 zone) on approximately 10.57 acres, two commercial developments totaling 3.79 acres (C-3 zone), and 0.95 acres for a community park (OS zone). The multifamily development would be built-out into 2 phases. The 3.79-acre commercial development would be built-out based upon market demand. The current zone of the property is R-1-7. The proposed development includes a request to change the existing zone from R-1-7 to R-3 on approximately 10.57 acres, C-3 on 3.79 acres and OS on 0.95 acres.

The subject property is currently undeveloped. The property is bordered to the west by State Route 43 (Highland Avenue), to the north by a single-family residential development and Fig Street, to the east by the Eric White Elementary School and to the south by Nebraska Avenue. There is an existing open and closed irrigation canal that borders the westerly property line. Irrigation facilities exist adjacent to the northwest corner of the project site. An existing convenience store and restaurant are located adjacent to the south and west of the subject property.

Phase I

The first phase would include the proposed development of 10 buildings with a total of 8 units per building. Each building would consist of approximately 4,000 square feet per story with a total of 2 stories per building. Each unit will have approximately 1,000 square feet of space. The units would include a mix of 2 bedroom/1 bath, 2 bedroom/2 bath and 1 bedroom/1 bath residences. In each building, there would be (6) 2-bedroom units and (2) 1-bedroom units. For the first phase, this includes (54) 2-bedroom units and (18) 1-bedroom units for a total of (72) units. A mix of open parking with covered carport parking would be included in the site layout. Each building would include a mix of building materials, architectural pop-outs, and colors to break up the building elevations and avoid monotonous, blank wall space. Any roof mounted mechanical units will be screened by parapets. A decorative block wall will separate this use from neighboring development. A wrought iron fence would be included along State Route 43.

In addition, a clubhouse is proposed to be included with the first phase and would include landscaping and an outdoor covered patio space. It is anticipated that the clubhouse will have a gym, leasing office and community room along with a kitchen and restrooms. It is also anticipated that a tot lot will be included and will have a pre-manufactured play structure as well as stationary picnic tables. Sidewalks will connect the site amenities to the residential units and will connect to off-site sidewalks, increasing pedestrian accessibility. The total building area would be approximately 81,000 square feet in the first phase.

Phase II

The second phase would consist of a continuation of the first phase and would include (9) buildings. Each building would consist of approximately 4,000 square feet with a total of 2 stories each and would include 8 units per building. Each unit would have approximately 1,000 square feet of space. The units would include a mix of 2 bedroom/1 bath, 2 bedroom/2 bath and 1 bedroom/1 bath units. In each building, there will be (6) 2-bedroom units and (2) 1-bedroom units. For the first phase, this includes (54) 2-bedroom units and (18) 1-bedroom units for a total of (72) units. The total building area will be approximately 77,000 square feet in the second phase, for a total of 158,000 square feet in both phases.

A total of (4) 4-cell trash and recycling enclosures will be located throughout the site. After total project buildout, there would be a total of (144) units, of which (108) units will be 2-bedroom units and (36) units will be 1-bedroom units.

The main entry access point to the development is proposed to be a decorative gated entry off of Highland Avenue (State Route 43) into both the northwest commercial and multifamily developments. The proposed commercial development would be accessed via Nebraska Avenue. A gated access limited to emergency vehicles will be connected at Fig Street to the north.

Water and sewer utilities would be connected from existing lines along Nebraska Avenue. Storm water will be collected on-site and connected to the City's existing storm drain system.

The overall open space proposed for the multi-family residential development would consist of 25% of the total lot area and the overall lot coverage for the site would be 26%. The density is expected to be at 16 units per acre.

Landscaping is being provided along State Route 43 as well as within the interior of the site to soften the paved areas and provide aesthetic amenity. The proposed landscape area has been designed to meet or exceed the minimum requirements as outlined in the property development standards for the corresponding zone designation. Landscape will meet MWELO requirements.

Site lighting will be provided to enhance security. Lights will conform to the R-3 zoning requirements and will be located along the parking lots and a minimum of 15 feet away from adjacent residential zones, and poles will be less than 20 feet in height to minimize light and glare off-site. A minimum of one foot-candle and a maximum of 10:1 ratio will be met. The project as proposed will also include wall-mounted decorative lights that meet the zoning requirements. Lights along all State and Local streets will be provided in accordance with State and City standards.

2. BACKGROUND: As discussed in the City's General Plan Update 2035, the City of Selma had grown to a population of 23,286 according to the California Department of Finance (DOF). In 1980, the population of Selma was 10,972, by 1990 the population had increased to 14,757 and by 2000 the population had increased to 19,314. Population growth from 1990 to 2000 represented an increase of 31.8% and the General Plan estimated that there would be 983,478 persons in Fresno County by 2010.

Based on the City of Selma's historical population growth, the General Plan Update assumed a 4% growth rate for the City, which would result in a population of 23,621 by 2010 and a potential population of 35,870 by 2020. However, as of 2023, with a population of 24,565, the City of Selma is currently declining at a rate of -0.12% annually and its population has decreased by -0.37% since the most recent census, which recorded a population of 24,655 in 2020.

The Fresno Council of Governments (FCOG) allocates housing production goals for the County and incorporated cities based on their "fair share" of the region's population and employment, which is outlined in the FCOG Sixth Cycle Regional Housing Needs Plan 2022 (RHNP). Of the 58,298 housing units allocated to FCOG, the City of Selma will need to accommodate 1,492 units over the 8-year planning period. This includes accommodating 393 very low-income, 165 low-income, 233 moderate-income, and 701 above moderate-income housing units.

Addressing a general deficit in affordable residential units citywide can be accommodated through higher density development. As required by State law (AB 1233), these units will be addressed by implementing Housing Element programs to allow for higher density residential development.

The current zone of the subject property is R-1-7, which allows for 3 to 5.5 units per acre. The proposed project includes a request to change the zone from R-1-7 to R-3 (Medium High Density, 8 to 14 units per acre) on approximately 9 acres, C-3 (Regional Commercial) on 6 acres and OS (Open Space) on 1 acre. It is important to note that, according to Table 1-1 (Land Use and Zoning Consistency) of the General Plan Update Land Use Element, the R-3 zone would also be consistent with High Density development of up to 19 units per acres. As such, the proposed zone change would modify the maximum allowable residential density from a maximum of 5.5 dwelling units/acre to up to 19 dwelling units/acre. The increased residential density is considered to be consistent with the City's goals to meet the FCOG RHNP and will help the City meet the housing needs identified under the RHNA.

In addition, with respect to the proposed C-3 zoning, the City's Land Use Element Policy 1.41 specifies that when the amount of available land is less than required for three years of average growth, the City shall initiate applications such as zoning and general plan amendments (excluding annexation) to ensure that at least a three-year supply of commercial lands are available for development.

3. PROJECT LOCATION: The proposed project is located in the City of Selma, California northeast of the intersection of Highland Avenue (State Route 43) and Nebraska Avenue (APN 388-03-026). The subject property consists of a former agricultural parcel and is relatively flat in topography, is void of trees and is undeveloped. The property is bordered to the west with State Route 43 (Highland Avenue), to the north with a single-family development and Fig Street, to the east with a school site and to the south Nebraska Avenue. There is an existing open and closed irrigation canal that borders

the westerly property line. Irrigation facilities exist at the northwest corner. An existing convenience store and restaurant are located to the south and west of the subject property.
within the City of Selma.

Please refer to the attached Figure 1, Site Location Map, for a depiction of the proposed project location.

4. EXISTING SETTING: The subject site is relatively rectangular in shape with a reported area of approximately 16 acres. The site is currently covered with grassy vegetation and scattered shrubs. The site is bounded to the north by Fig Street and residential development; to the east by local access road and further east by elementary school and Ringo Park, to the south by vacant lot, Nebraska Avenue and, and to the southwest by Super Drive Inn and 76 Fuel Station, and west side by Highland Avenue.

The project site area is relatively flat and currently undeveloped. Based on review of historic aerial imagery, the site appears to have primarily been used light farming fields. In addition, the site elevation is approximately 306 feet above mean sea level (AMSL).

5. ENVIRONMENTAL ANALYSIS: During the Initial Study process, several issues were identified as having potentially significant environmental effects (see following Initial Study). Impacts identified as "Less That Significant with Mitigation Incorporated" are considered to be significant but mitigable impacts. Those potentially significant items associated with the proposed uses can be minimized to less than significant levels. Please refer to the Initial Study Checklist and environmental impact analysis below.

INITIAL STUDY CHECKLIST

I. AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Setting. As discussed in the EIR prepared for the City of Selma General Plan Update 2035, the City has a small town look and feel with strong ties to its agricultural heritage and economy. The visual character of Selma is defined by its distinct neighborhoods and areas, gateways, its primary corridor State Route (SR) 99, and its trees and landscaping. The City's primary scenic and visual resources consist of the Sierra Nevada Mountains located approximately 35 miles east of Selma and the coastal foothills to the west that can be seen on clear days (Selma 2009).

Other scenic resources identified in the General Plan Update EIR include: the agricultural lands, row and tree crops surrounding the Selma city limits, street trees and established larger trees within and around Selma, and landscaped areas within the public parks. SR 99 and SR 43 both pass through Selma. These state routes are not designated as scenic highways in the California State Scenic Highway Program (California Department of Transportation [Caltrans] 2019). Visual conditions in and around Selma have not substantially changed and no new scenic vistas or scenic highways have been designated in Selma beyond those identified in the General Plan Update EIR.

The project site is currently undeveloped, relatively flat and rectangular in shape with a reported area of approximately 16 acres. The site is currently covered with grassy vegetation and scattered shrubs. The site is bounded to the north by Fig Street and residential development; to the east by local access

road and further east by elementary school and Ringo Park, to the south by vacant lot, Nebraska Avenue and, and to the southwest by Super Drive Inn and 76 Fuel Station, and west side by Highland Avenue. Based on review of historic aerial imagery, the site appears to have primarily been used light farming fields.

Impact. #

(a) Have a substantial adverse effect on a scenic vista?

A scenic vista is generally defined as a high-quality view displaying good aesthetic and compositional values that can be seen from public viewpoints. Some scenic vistas are officially or informally designated by public agencies or other organizations. A substantial adverse effect on a scenic vista would occur if the project would significantly degrade the scenic landscape as viewed from public roads or other public areas. A proposed project's potential effect on a scenic vista is largely dependent upon the degree to which it would complement or contrast with the natural setting, the degree to which it would be noticeable in the existing environment, and whether it detracts from or complements the scenic vista.

The subject site is undeveloped, relatively flat and rectangular in shape, approximately 16 acres in size. The site is currently covered with grassy vegetation and scattered shrubs. The site is bounded to the north by Fig Street and residential development; to the east by local access road and further east by elementary school and Ringo Park, to the south by vacant lot, Nebraska Avenue and, and to the southwest by Super Drive Inn and 76 Fuel Station, and west side by Highland Avenue. Based on review of historic aerial imagery, the site appears to have primarily been used light farming fields.

The current zone of the subject property is R-1-7, which allows for 3 to 5.5 units per acre. The proposed project includes a request to change the zone from R-1-7 to R-3 (Medium High Density, 8 to 14 units per acre) on approximately 9 acres, C-3 (Regional Commercial) on 6 acres and OS (Open Space) on 1 acre. The increased residential density is considered to be consistent with the City's goals to meet the FCOG RHNP and will help the City meet the housing needs identified under the RHNA. This increase in density would have a minimal impact to existing scenic views identified in the General Plan Update 2035 EIR and the project would be considered consistent with surrounding agricultural, community commercial and neighboring medium to high density residential land uses bordering the site.

In addition, the proposed project would be subject to review by the City prior to approval to ensure applicable design guidelines are adhered to and consistent with the visual character of the area. Therefore, the project would not have a substantial adverse effect on a scenic vista and impacts would be less than significant.

(b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

As discussed above, the City of Selma does not include any state scenic highways. The proposed project is considered to be visually consistent with the surrounding area through natural screening from public view by the existing topography, intervening vegetation and avoidance of skyline silhouetting and will provide further screening from the nearby residence

through use of building siting, design and landscaping. The project site is vacant and does not include the removal of any trees. Project consistency with the City's Land Use Ordinance will ensure that impacts will be *less than significant.*

(c) *In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

The proposed project is located in a rural residential and agricultural setting. As discussed above, the City does not include highways designated as a scenic vista. The proposed development will not silhouette against the skyline given the relatively flat nature of the site.

There are several existing neighboring residences located in proximity to the proposed project development site. This includes neighboring residences to the north and east, as well as commercial development to the south and west.

The proposed project is considered to be visually consistent with the surrounding area through natural screening from public view by intervening vegetation/landscaping, fencing and will provide further screening from the nearby residence through use of building siting, design and landscaping. Therefore, the project would not result in a noticeable change to public views of the area or result in the degradation of the existing visual character or quality of public views of the site and its surroundings, and impacts would be *less than significant.*

(d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

The project site is currently a vacant lot, surrounded by agricultural land and community commercial and residential uses. The adjacent development and roadways near the project site generate some light. Primary sources of lighting include building mounted and perimeter lighting as well interior lighting visible through windows and headlights from vehicles on nearby streets. The primary source of glare adjacent to the project site is the reflection from metallic and glass surfaces on the nearby building and on vehicles.

The project would involve rezoning the parcel and amending its land use designation to allow for housing at a higher density than is currently allowed at the project site. New development as a result of the proposed project could result in new exterior and interior lighting.

Site lighting for the proposed project will be provided to enhance security. Lights will conform to the R-3 zoning requirements and will be located along the parking lots and a minimum of 15 feet away from adjacent residential zones, and poles will be less than 20 feet in height to minimize light and glare off-site. A minimum of one foot-candle and a maximum of 10:1 ratio will be met. The project as proposed will also include wall-mounted decorative lights that meet the zoning requirements. Lights along all State and Local streets will be provided in accordance with State and City standards.

Future development of the project site would be subject to the lighting requirements for residential land uses within the City Zoning Ordinance. Additionally, the City of Selma 2035 General Plan includes the following policy relating to exterior lighting:

Policy 1.33c: Exterior lighting for projects shall be shielded to prevent line of sight visibility of the light source from abutting property planned for single-family residential. The City Site Plan Review process shall require development projects to ensure that no more than 0.25 footcandles of errant light impacts adjacent properties. The Planning Official shall require a photometric analysis of projects where necessary to demonstrate compliance with this requirement.

Implementation of this policy, and others required by the City Site Plan Review process and the Zoning Ordinance would reduce the potential for new development to create substantial sources of lighting or glare that would impact day or nighttime views. Therefore, the project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area and potential impacts would be *less than significant.*

Mitigation/Conclusion. Impacts are considered less than significant, and mitigation is not required.

II. AGRICULTURE AND FORESTRY RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

Setting. As discussed in the City's General Plan Update 2035 EIR, agriculture is a major activity in the vicinity of Selma, throughout Fresno County and the Central Valley. Approximately 75 percent of Selma's Planning Area, approximately 11,508 acres, is designated Important Farmland; while not all of this land is under agricultural production, the majority is. Farmland also makes up most of the City's open space resources.

Fresno County is one of the most diverse and productive farming areas in the world and produces a wide variety of crops including: field crops, seed crops, vegetable crops, fruit and nut crops, nursery, livestock and poultry, apiary and pollination products, and industrial crops. Fresno County exceeded the four billion dollar-mark for the fourth consecutive year in 2006 with gross production value of $4.84 billion.

According to the Natural Resource Conservation Service soils map, the project site consists of the soil types defined as; Delhi sand (0 to 3% slopes), Delhi loamy sand (0 to 3% slopes), and Hesperia fine sandy loam. Delhi sand (0-3% slopes) is characterized as somewhat excessively drained with a negligible runoff classification and has a land capability classification of 3s (irrigated) and 4e (non-irrigated) and is not considered prime farmland. Delhi loamy sand (0-3% slopes) is characterized as somewhat excessively drained with a very low runoff classification and a land capability classification of 3s (irrigated) and 4e (non-irrigated) and is only considered prime farmland if irrigated. Hesperia fine sandy loam is characterized as well drained with a negligible runoff potential and has a land capability classification as 2s (irrigated) and 4s (non-irrigated) and is considered prime farmland only if irrigated.

The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) produces maps and statistical data used for analyzing impacts on California's agricultural resources. Agricultural land is rated according to soil quality and current land use. For environmental review purposes under CEQA, the FMMP categories of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land are considered 'agricultural land'. Other non-agricultural designations include Urban and Built-up Land, Other Land, and Water. Based on the FMMP, soils at the subject site are within the Farmland of Local Importance designation.

The Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agriculture or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value. The subject property is not enrolled in the Williamson Act program.

According to Public Resources Code Section 12220(g), forest land is defined as land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. Timberland is defined as land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. The project site does not support any forest land or timberland.

Impact.

(a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The project site and surrounding areas are characterized by agricultural uses including cultivated annual crops in the western, southern, and northwestern areas and disked agricultural fields. The California FMMP designates the project site as Farmland of Local Importance, which includes prime farmland when irrigated.

Although the project site is currently vacant and has been historically used for row crop agriculture, the project parcel is currently zoned for R-1-7 residential uses. The project would involve rezoning the parcel and amending its land use designation to allow for housing at a higher density than is currently allowed at the project site. New development as a result of the proposed rezone and General Plan amendment would result in the conversion of Prime and Farmland of Local Importance to non-agricultural uses. The General Plan EIR determined that lands would be converted from Important Farmland to urban uses as a result of the 2035 General Plan Update. Policies 1.3, 1.7 through 1.9, 1.11, 1.95, 1.100, 1.103, through 1.105, and 5.8 through 5.12 of the 2035 General Plan provide for the orderly conversion of farmland, as measures identified to reduce impacts related to farmland conversion. In addition, the General Plan EIR included mitigation measures to encourage property owners to maintain their land in agriculture until the land may be converted to urban uses.

Under the 2035 General Plan Update, the project site was previously designated for residential land use. Because the project site was already planned for residential development, the proposed rezone and General Plan amendment would not alter the proposed use as residential. Therefore, the project would not result in conversion of additional agricultural land to urban use beyond that identified in the General Plan and impacts are considered *less than significant.*

(b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

The project site is currently zoned R-1-7 and is not located on property currently under a Williamson Act contract. The project would rezone the parcel and amend its existing land use designation to allow for housing at a higher density than is currently allowed at the project site. The project would not affect any additional parcels in the vicinity. Therefore, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract and *no impacts are anticipated*

(c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

The project site is not zoned for forest land, timberland, or Timberland Protection, and is not listed as Private Timberland or Public Land with Forest by the CDFW. The proposed project will

not conflict with zoning or cause rezoning of forest land or timberland, therefore *no impacts would occur.*

(d) Result in the loss of forest land or conversion of forest land to non-forest use?

The project site is not zoned for forest land, timberland, or Timberland Protection, and is not listed as Private Timberland or Public Land with Forest by the CDFW. The proposed project will not result in the loss of forest land or convert forest land to non-forest use, therefore *no impact would occur*.

(e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

The project site contains land classified as Farmland of Local Importance pursuant to the FMMP. However, as discussed above under item (a), the project site is designated for residential land use under the General Plan Update 2035. Because the project site is already planned for residential development, the proposed project would not alter the site's intended use as residential and would not result in nearby parcels being converted to non-agricultural use. Therefore, the project would not result in conversion of farmland. Impacts would be *less than significant.*

Mitigation/Conclusion. No mitigation measures are necessary.

III. AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Setting. The project site is located in the San Joaquin Valley Air Basin, which is under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). The SJVAPCD is required to monitor air pollutant levels to ensure that air quality standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the local air basin is classified as being in "attainment" or "non-attainment." The Basin is currently in non-attainment for the federal and State 8-hour ozone standards, the State 1-hour ozone standard (severe non-attainment), State and federal $PM_{2.5}$ standards, and the State PM_{10} standard. The Basin is in attainment or unclassified for all other standards. The SJVAPCD has prepared and adopted a number of Air Quality Management Plans (AQMPs) for ozone (e.g., 2016 Plan for the 2008 8-Hour Standard) and particulate matter (e.g., 2016 Moderate Area Plan for the 2012 PM2.5 Standard) (SJVAPCD 2016a; 2016b).

Both the US Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants representing safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The City of Selma is currently designated as nonattainment for federal and State 8-hour ozone standards, the State 1-hour ozone standard (severe non-attainment), State and federal $PM_{2.5}$ standards, and the State PM_{10} standard.

State Regulations
The California Green Building Standards Code (CALGreen Code) (California Code of Regulations, Title 24, Part 11) was adopted by the California Building Standards Commission in 2013 and became effective in January 2014. The Code applies to all new constructed residential, nonresidential, commercial, mixed-use, and State-owned facilities, including schools and hospitals. CALGreen Code is comprised of Mandatory Residential and Nonresidential Measures and more stringent Voluntary Measures (TIERs I and II).

Mandatory Measures are required to be implemented on all new construction projects and consist of a wide array of green measures concerning project site design, water use reduction, improvement of indoor air quality, and conservation of materials and resources. CALGreen Code refers to Title 24, Part 6 compliance with respect to energy efficiency; however, it encourages 15 percent energy use reduction over that required in Part 6. Voluntary Measures are optional, more stringent measures that may be used by jurisdictions to enhance their commitment towards green and sustainable design and achievement of Assembly Bill (AB) 32 goals. Under TIERs I and II, all new construction projects are required to reduce energy consumption by 15 percent and 30 percent, respectively, below the baseline required under the California Energy Commission, as well as implement more stringent green measures than those required by mandatory code.

As required by California law, City and County General Plans contain a Land Use Element that details the types and quantities of land uses that the city or county estimates will be needed for future growth, and that designate locations for land uses to regulate growth. Fresno Council of Governments (FCOG) uses the growth projections and land use information in adopted general plans to estimate future average daily trips and then vehicle miles traveled (VMT), which are then provided to SJVAPCD to estimate future emissions in the AQMPs. Existing and future pollutant emissions computed in the AQMP are based on land uses from area general plans. AQMPs also detail the control measures and emission reductions required for reaching attainment of the air standards.

Local Regulations and Policies
The SJVAPCD is responsible for formulating and implementing the AQMPs for the Basin. The SJVAPCD Air Quality Guidelines for General Plan documents was most recently revised in June 2005.The SJVAPCD published its technical guidance document, *Guidance for Assessing and Mitigating Air Quality Impacts*, for reviewing air quality impacts in the Basin under CEQA in March 2015. In addition, the SJVACPD has established a number of regulations to reduce air pollutant emissions from construction of land use projects under Regulation VIII (Fugitive PM_{10} Prohibitions). The purpose of Regulation VIII is to reduce ambient concentrations of fine particulate matter (PM_{10}) by requiring actions to prevent, reduce or mitigate anthropogenic fugitive dust emissions. Regulation VIII identifies general requirements under Rule 8011, as well as those for construction, demolition excavation, extraction, and other earthmoving activities (Rule 8021), bulk materials (Rule 8031), carryout and trackout (Rule 8041), open areas (Rule 8051), paved and unpaved roads (Rule 8061), unpaved vehicle/equipment traffic areas (Rule 8071), and agricultural sources (Rule 8081).

Among the rules adopted by the SJVAPCD are Regulation VIII and the Indirect Source Review (ISR) rule. Regulation VIII is a series of rules that regulate dust emissions from open areas, disturbed surfaces, unpaved road areas, construction activities and similar fugitive dust sources. The ISR rule,

which took effect March 1, 2006, requires emission reductions and impact fees from development and transportation projects. For development projects, the ISR rule requires that NOx from operations be reduced by 33 percent over ten years and that PM10 be reduced by 50 percent over ten years. In addition, construction exhaust emissions must be reduced in accordance with the ISR rule. These reductions may be met through on-site mitigation or by the payment of an "off-site" fee to the SJVAPCD. The SJVAPCD would use the off-site fee to reduce emissions in the SJVAB by funding clean-air projects.

In order to determine the potential air quality impacts related to the proposed project, an air quality study was prepared (Focused Air Quality Study, Nebraska-Highland Multifamily Residential and Retail Development, Selma, California. Trinity Consultants, Inc. March 2023). As discussed in the air quality study, the SJVAPCD has identified quantitative emission thresholds to evaluate the potential air quality impacts of a project. Emissions exceeding the established significance thresholds would be considered to have a significant impact if not adequately mitigated to below the thresholds. The SJVAPCD air quality thresholds from the SJVAPCD's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) are presented in Table 1, below. The SJVAPCD separates construction emissions from operational emissions, and further separates permitted operational emissions from non-permitted operational emissions, for determining significance thresholds for air pollutant emissions.

Table 1. SJVAPCD Air Quality Thresholds of Significance

Pollutant/Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment and Activities	Non-Permitted Equipment and Activities
	Emissions (tpy)	Emissions (tpy)	Emissions (tpy)
CO	100	100	100
NO_x	10	10	10
ROG	10	10	10
SO_x	27	27	27
PM_{10}	15	15	15
$PM_{2.5}$	15	15	15

Source: SJVAPCD 2015

The EPA has established the Federal Prevention of Significant Deterioration (PSD) program to determine what comprises "significant impact levels" (SIL) to NAAQS attainment areas. A project's impacts are considered less than significant if emissions are below PSD SIL for a particular pollutant. When a SIL is exceeded, an additional "increment analysis" is required. The PSD SIL thresholds are used with ambient air quality modeling for a CEQA project to address whether the project would "violate any air quality standard or contribute substantially to an existing or projected air quality violation." Ambient air quality emissions estimates below the PSD SIL thresholds would result in less than significant ambient air quality impacts for both a project and cumulative CEQA impact analysis. The SJVAB is classified as non-attainment for the O_3 NAAQS and, as such, is subject to "non-attainment new source review" (NSR). PSD SILs and increments are more stringent than the CAAQS or NAAQS and represent the most stringent thresholds of significance. As the proposed project would

not include modification to the stationary source under NSR, it would not be subject to either PSD or NSR review.

In addition, the GAMAQI recommends that Lead Agencies consider situations wherein a new or modified source of Toxic Air Contaminants (TACs) is proposed for a location near an existing residential area or other sensitive receptor when evaluating potential impacts related to TACs.

The SJVAPCD's GAMAQI states, "From a health risk perspective there are basically two types of land use projects that have the potential to cause long-term public health risk impacts:

- Type A Projects: Land use projects that will place new toxic sources in the vicinity of existing receptors,
- Type B Projects: Land use projects that will place new receptors in the vicinity of existing toxics sources"

Table 2, below, presents the thresholds of significance used with toxic air contaminants when evaluating TACs.

Table 2. Measures of Significance – Toxic Air Contaminants

Agency	Level	Description
Significance Thresholds Adopted for the Evaluation of Impacts Under CEQA		
SJVAPCD	Carcinogens	Maximally Exposed Individual risk equals or exceeds 20 in one million.
	Non-Carcinogens	Acute: Hazard Index equals or exceeds 1 for the Maximally Exposed Individual.
		Chronic: Hazard Index equals or exceeds 1 for the Maximally Exposed individual.

Naturally Occurring Asbestos

Naturally occurring asbestos (NOA) has been identified by the State Air Resources Board as a toxic air contaminant. Serpentine and ultramafic rocks are very common throughout California and may contain naturally occurring asbestos. The project would not be within close proximity to any serpentine rock outcrops and/or soil formations which may have the potential to contain naturally occurring asbestos. Therefore, the project site is not within an area identified as having the potential for Naturally Occurring Asbestos (NOA).

Impact.

(a) Conflict with or obstruct implementation of the applicable air quality plan?

The City's General Plan Update 2035 outlines forecasted population growth through the year 2040. The California Department of Finance (DOF) estimated the City's population in 2020 to be 24,436 persons (DOF 2020). Per the DOF data, the average persons per household in 2020 is 3.65 (DOF 2020). The proposed project includes a request to change the zone from R-1-7 to R-3 (Medium High Density, 8 to 14 units per acre) on approximately 9 acres, C-3 (Regional Commercial) on 6 acres and OS (Open Space) on 1 acre. The proposed zone change would modify the maximum allowable residential density from a maximum of 5.5 dwelling units/acre

to up to 19 dwelling units/acre. It is estimated that the project would result in the development of a maximum of 144 new dwelling units, and a subsequent population growth of 525 residents. The City's 2020 population with implementation of the project is estimated to be below that forecasted in the General Plan Update. The project would facilitate consistency between zoning and General Plan land use designations for the site, and the project would be within the growth assumptions contained in the General Plan Update (35,870 persons in 2020).

Additionally, the General Plan EIR determined that buildout facilitated by the 2035 General Plan Update would be consistent with the SJVAPCD *Guide for Assessing and Mitigating Air Quality Impacts* (Selma 2009). With approval of the proposed General Plan amendment the project would be consistent with the currently adopted General Plan for the City of Selma and would be consistent with the population growth and VMT applied in SJVAPCD's AQMP. As a result, the project would not conflict with or obstruct the implementation of any air quality management plans, and this impact would be considered *less than significant*.

(b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

The City of Selma is currently designated as non-attainment for the federal and State 8-hour ozone standards, the State 1-hour ozone standard (severe non-attainment), State and federal $PM_{2.5}$ standards, and the State PM_{10} standard. Construction of the proposed project would result in emissions of ozone precursors including reactive organic gasses (ROG) and nitrous oxides (NO_X) and fugitive dust emissions (PM_{10} and $PM_{2.5}$).

Indirect Source Review (ISR) Air Impact Assessment (AIA) Application

Consistent with the SJVAPCD Regulation VIII and the ISR rule, the applicant has submitted an Air Impact Assessment Application for the District's review. The AIA was approved by the SJVAPCD on May 3, 2023. The District determined that the mitigated baseline emissions for construction and operation will be below NOx and PM10 thresholds and the project is exempt from the requirements of Section 6.0 (General Mitigation Requirements) and Section 7.0 (Off-Site Emissions Reduction Fee Calculations and Fee Schedules) of the rule. However, in order to maintain this exemption, the AIA approval requires compliance with the mitigation measures provided in the application approval letter, including the following:

- Dust Control Plan. The applicant may be required to submit a Construction Notification Form or submit and receive approval of a Dust Control Plan prior to commencing any earthmoving activities as described in District Rule 8021 Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities.
- Asbestos Requirements for Demolitions. If demolition is involved, a Certified Asbestos Consultant will need to perform an asbestos survey prior to the demolition of a regulated facility. Following the completion of an asbestos survey; the asbestos survey, Asbestos Notification, Demolition Permit Release, and the proper fees are to be submitted to the District 10 working days prior to the removal of the Regulated Asbestos Containing Material and/or the demolition when no asbestos is present

- Permits. Per District Rule 2010 (Permits Required), you may be required to obtain a District Authority to Construct prior to installation of equipment that controls or may emit air contaminants, including but not limited to emergency internal combustion engines, boilers, and baghouses.

Project compliance with SJAPCD AIA approval rules will reduce impacts related to District requirements to *less than significant levels.*

Construction Impacts

Construction activities can generate fugitive dust, which could be a nuisance to local residents and businesses in close proximity to the proposed construction site, as well as emissions associated with ozone precursors including ROG and NOx. However, the proposed project is not expected to generate construction emissions in excess of the thresholds approved by the SJVAPCD as discussed above. In order to determine the project anticipated construction emissions, the Focused Air Quality Study prepared for the proposed project includes emissions modeling utilizing CalEEMod software.

Applying model defaults as well as a conservative analysis approach, construction emissions were estimated as shown in Table 3 below. As specified in the Focused Air Quality Study, all estimated emission totals are conservative and reflect a reasonable and legally sufficient estimate of potential impacts. All construction equipment activity levels were assumed based on the specified CalEEMod default values for hours used, type, number of equipment and horsepower.

Construction emission estimates also included the following options available in the model to reduce PM_{10} emissions in compliance with Air District Regulation VIII requirements:

- Water exposed area 3 times per day; and
- Reduce vehicle speed to less than 15 miles per hour.

Table 3. Construction Emissions

Emissions Source	Pollutant					
	ROG	NOx	CO	SOx	PM10	PM2.5
2023 Construction	0.227	2.013	2.294	0.004	0.178	0.119
2024 Construction	0.953	1.701	2.093	0.004	0.159	0.101
2025 Construction	0.902	1.458	1.761	0.003	0.083	0.064
2026 Construction	0.262	1.594	1.978	0.003	0.106	0.080
2027 Construction	0.186	0.381	0.519	0.001	0.020	0.016
Maximum (tons/year)	**0.953**	**2.013**	**2.294**	**0.004**	**0.178**	**0.119**
Maximum (pounds/day)	7.305	15.427	17.582	0.032	1.360	0.913
SJVAPCD Construction Emissions Thresholds (tons/year)	10	10	100	27	15	15
Is Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Based on these anticipated activity levels, the project construction activities would not exceed construction- related criteria pollutant thresholds. Therefore, construction emissions are considered to be *less than significant*.

Operational Impacts

The project Focused Air Quality Study provides an assessment of the project's long-term operations emissions generated from mobile, energy, and area sources as well as from water use and waste generation emissions (see Table 4, below). This includes a modeling of the project operational air emissions using the CalEEMod model.

Table 4. Operational Emissions

Emissions Source	Pollutant					
	ROG	NOx	CO	SOx	PM10	PM2.5
Operational Emissions (pounds/day)	9.819	8.22	46.362	0.104	10.538	2.928
Operational Emissions (tons/year)	1.792	1.50	8.461	0.019	1.923	0.534
SJVAPCD Operational Emissions Thresholds (tons/year)	10	10	100	27	15	15
Is Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

As calculated, the long-term operational emissions associated with the proposed project would be less than SJVAPCD significance threshold levels. As such, impacts are considered *less than significant.*

(c) Expose sensitive receptors to substantial pollutant concentrations?

As discussed in the project Focused Air Quality Study, sensitive receptors are defined as areas where children, chronically ill individuals, the elderly or people who are more sensitive than the general population reside. Schools, hospitals, nursing homes and daycare centers are locations where sensitive receptors would likely reside. The Focused Air Quality Study includes a list of sensitive receptors located within 2 miles of the project site. As described above in response to item *(b)*, the project would not generate daily emissions resulting from construction emissions and would not generate significant operational emissions with the implementation of required mitigation identified below. Operational emissions would not substantially increase and compliance with existing regulations that prohibit excessive idling by diesel vehicles would reduce potential construction related emissions.

Toxic Air Contaminants

The project Focused Air Quality Study also includes an assessment of potential impacts to sensitive receptors from Toxic Air Contaminants (TACs). As discussed, TACs are defined by the California Health & Safety Code (CH&SC) §44321 and are listed in Appendices AI and AII in AB 2588 Air Toxic "Hot Spots" and Assessment Act's Emissions Inventory Criteria and Guideline Regulation document. SJVAPCD's risk management objectives for permitting and CEQA are as follows:

- Minimize health risks from new and modified sources of air pollution.
- Health risks from new and modified sources shall not be significant relative to the background risk levels and other risk levels that are typically accepted throughout the community.
- Avoid unreasonable restrictions on permitting.

To predict the potential health risk to the population attributable to emissions of toxic air contaminants (TACs) from the proposed project, ambient air concentrations were predicted with dispersion modeling to arrive at a conservative estimate of increased individual carcinogenic risk that might occur as a result of continuous exposure over a 4-year construction timeline each year from 2023 to 2027 and continuous exposure over a 70-year operational timeline. Similarly, predicted concentrations were used to calculate non-cancer chronic and acute hazard indices (HIs), which are the ratio of expected exposure to acceptable exposure. The basis for evaluating potential health risk is the identification of sources with increased TACs.

Health risk is determined using the Hotspots Analysis and Reporting Program (HARP2) software distributed by the CARB; HARP2 requires peak 1-hour emission rates and annual-averaged emission rates for all pollutants for each modeling source. Assumptions used to calculate the emission rates for the proposed project are outlined below.

The most recent version of EPA's AMS/EPA Regulatory Model - AERMOD was used to predict the dispersion of emissions from the proposed project. The analysis employed all of the regulatory default AERMOD model keyword parameters, including elevated terrain options.

For construction health impacts, diesel combustion emissions from diesel on-site construction equipment were modeled as an area source for on-site construction activity on the property. Diesel particulate matter was calculated using CalEEMod for on-site construction equipment.

For operational emissions it was assumed that each commercial building would contain a restaurant and dry cleaner in order to be conservative. In addition, the existing nearby gas station and restaurant toxic emissions were also included in the analysis. Lastly, DPM emissions from truck trips and idling at the commercial buildings were included.

SJVAPCD has set the level of significance for carcinogenic risk at twenty in one million, which is understood as the possibility of causing twenty additional cancer cases in a population of one million people. The level of significance for chronic and acute non-cancer risk is a hazard index of 1.0. All receptors were modeled as residential receptors.

The carcinogenic risk and the health hazard index (HI) for chronic non-cancer risk at the point of maximum impact (PMI) do not exceed the significance levels of twenty in one million (20 x 10-6) and 1.0, respectively for the proposed project. The PMIs are identified by receptor location and risk and are provided below in Table 5. The electronic AERMOD and HARP2 output files are provided in the Focused Air Quality Study.

Table 5. Potential Maximum TAC Impacts Predicted

	Value	Coordinates	
		UTM East	UTM North
Excess Cancer Risk	1.78E-05	264850.2	4049739.6
Chronic Hazard Index	2.68E-02	264850.2	4049739.6
Acute Hazard index	1.04E-01	264793.2	4049501.3

As shown above in Table 5, the maximum predicted cancer risk for the proposed project is 1.78E-05. The maximum chronic and acute non-cancer hazard index for the proposed project are 0.027 and 0.104, respectively. Since the PMI remained below the significance threshold

for cancer and chronic risk, the proposed project would not have an adverse effect to any of the surrounding communities.

According to the Focused Air Quality Study, the potential health risk attributable to the proposed project are determined to be below thresholds based on the following conclusions:

1. Potential carcinogenic risk from the proposed project is below the significance level of twenty in a million at each of the modeled receptors; and
2. The hazard index for the potential chronic non-cancer risk from the proposed project is below the significance level of 1.0 at each of the modeled receptors.
3. The hazard index for the potential acute non-cancer risk from the proposed project is below the significance level of 1.0 at each of the modeled receptors.

As such, the potential risk to the population attributable to emissions of TACs from the proposed project would *be less than significant*.

(d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Construction could generate odors from heavy diesel machinery, equipment, and/or materials. The generation of odors during the construction period would be temporary, would be consistent with odors commonly associated with construction, and would dissipate within a short distance from the active work area. As discussed in the project Focused Air Quality Study, expected uses for the proposed project are not known to be a source of nuisance odors and are not listed in the SJVAPCD's Guidance for Assessing and Mitigating Air Quality Impacts.

Based on the project's location in a rural residential area, and the limited number of nearby receptors, the project would not create objectionable odors affecting a substantial number of people, and the impact would be *less than significant*.

Mitigation/Conclusions. Impacts are considered less than significant and no mitigation is required.

IV. BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Setting:

Federal and State Endangered Species Acts

The Federal Endangered Species Act of 1973 (FESA) provides legislation to protect federally listed plant and animal species. The California Endangered Species Act of 1984 (CESA) ensures legal

protection for plants listed as rare or endangered, and wildlife species formally listed as endangered or threatened, and maintains a list of California Species of Special Concern (SSC). SSC status is assigned to species that have limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Under state law, the California Department of Fish and Wildlife (CDFW) has the authority to review projects for their potential to impact special-status species and their habitats.

Migratory Bird Treaty Act
The Migratory Bird Treaty Act (MBTA) protects all migratory birds, including their eggs, nests, and feathers. The MBTA was originally drafted to put an end to the commercial trade in bird feathers, popular in the latter part of the 1800s. The MBTA is enforced by the U.S. Fish and Wildlife Service (USFWS), and potential impacts to species protected under the MBTA are evaluated by the USFWS in consultation with other federal agencies and are required to be evaluated under CEQA.

Clean Water Act and State Porter Cologne Water Quality Control Act
The U.S. Army Corps of Engineers (USACE) regulates discharges of dredged or fill material into waters of the United States. These waters include wetland and non-wetland water bodies that meet specific criteria. USACE jurisdiction regulates almost all work in, over, and under waters listed as "navigable waters of the U.S." that results in a discharge of dredged or fill material within USACE regulatory jurisdiction, pursuant to Section 404 of the Clean Water Act (CWA). Under Section 404, USACE regulates traditional navigable waters, wetlands adjacent to traditional navigable waters, relatively permanent non-navigable tributaries that have a continuous flow at least seasonally (typically 3 months), and wetlands that directly abut relatively permanent tributaries.

The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) regulate discharges of fill and dredged material in California, under Section 401 of the CWA and the State Porter-Cologne Water Quality Control Act, through the State Water Quality Certification Program. State Water Quality Certification is necessary for all projects that require a USACE permit, or fall under other federal jurisdiction, and have the potential to impact waters of the State. Based on the U.S. Fish and Wildlife Service National Wetlands Inventory, the project site does not support wetlands, riparian or deep-water habitats (USFWS 2019).

Selma General Plan Update 2035
The Selma General Plan Update 2035 contains the following policies that apply to biological impacts associated with build-out of the city in accordance with the General Plan Update:

- Policy 5.1 The City shall review the Conservation and Open Space Element regularly to ensure its compatibility with State guidelines and related plans developed by the Council of Fresno County Governments and Fresno County.

- Policy 5.7 Maintain Rockwell Pond as both a resource management area (water recharge) and community open space.

Project Site Setting
Biological conditions in the City of Selma have not changed substantially since the analysis of the buildout facilitated by the 2035 General Plan Update in the General Plan EIR. The City of Selma is situated between the cities of Fowler to the north and Kingsburg to the south. State Route 99 and the Southern Pacific Railroad tracks pass through the center of the City in a northwest-southeast direction. State Route 43 terminates at Floral Avenue in Selma. The Planning Area, as defined in the General Plan Update 2035, contains 4.9 square miles (3,136 acres), of which 1,924 acres are developed. The remaining 1,212 acres consist primarily of agricultural lands.

The approximately 16-acre subject parcel is a highly disturbed environment located in a rural residential/agricultural and commercial area of the City consisting of an open, vacant lot. The site is bounded to the north by Fig Street and residential development; to the east by local access road and further east by elementary school and Ringo Park, to the south by vacant lot, Nebraska Avenue and, and to the southwest by Super Drive Inn and 76 Fuel Station, and west side by Highland Avenue. The site is regularly maintained (mowed) and is void of any trees, shrubs or mature vegetation. Weedy, non-native annual grassland (California Annual Grassland) is the predominant vegetation community found on site, as well as ruderal/disturbed habitat.

California Annual (Non-Native) Grassland

The California annual grassland series, as described by Sawyer and Keeler-Wolf (1995) correspond with the Non-Native Grassland plant community described by Holland (1986) and with Annual Grassland described in the California Wildlife Habitat Relationship (CWHR) database. This plant community is typically found on dry hillsides and valleys throughout the Central Valley and Coast Ranges, and along the coast of central and southern California. This plant community generally contains a mix of native and non-native annual grasses and forbs and often contains sparsely distributed shrubs and trees.

Grasslands provide foraging habitat for a variety of small mammals which in turn serve as a prey base for larger predator animals, including snakes, raptors ("birds of prey"), and coyotes (*Canis latrans*). Numerous invertebrate species (such as insects), many of which provide a food source for larger animals such as lizards, birds, and some small mammals can also be found within grassland habitat type. Grasslands provide valuable foraging habitat for many predators, including raptors such as the red-tailed hawk (*Buteo jamaicensis*) and northern harrier (*Circus cyaneus*).

Developed/Ruderal

Developed/ruderal conditions are common in abandoned fields, along roadsides, in un-maintained areas adjacent to development, and areas that have been altered by construction, agriculture, landscaping, or other types of regular human activity that constrains plant growth. If vegetated, these areas are typically dominated by non-native annual grasses and herbaceous plants adapted to the regular cycle of disturbance from traffic and weed reduction practices such as mowing and herbicide application. Typical plants consist primarily of introduced species.

Plant species common to developed areas include English ivy, ripgut brome, slender wild oats (*Avena barbata*), bur-clover (*Medicago polymorpha*), sweet fennel (*Foeniculum vulgare*), and a variety of ornamental plantings associated with landscaping. The developed/ruderal portions of the study area would typically attract common wildlife species adapted to human disturbance and are not expected to provide significant habitat values for native species.

Impact.

(a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Completion of the proposed project would disturb developed and ruderal areas on-site. Developed and ruderal areas dominated by non-native species are not considered sensitive plant communities by the California Department of Fish and Wildlife, and are common throughout the region. In order to determine the potential for the project site to support sensitive status species, a query of the California Natural Diversity Database (CNDDB) was performed for a 9-quad area around the City of Selma (please see Attachment H). As shown, the majority of the species listed are located outside of the Selma quad. The special status species with the potential to occur in the project site area are listed below:

- Swainsons hawk (*Buteo swainsoni*): State listed "Threatened". The project site does not exhibit habitat suitable for the nesting or foraging of raptors given the lack of trees or mature vegetation structure needed for foraging as discussed below. The City's General Plan Update EIR included a survey for this species and determined it is not likely to occur in the City's Planning Area;
- Western yellow-billed cuckoo (*Coccyzus americanus occidnetalis*): Federal listed Threatened, State listed Endangered. The project site does not exhibit habitat suitable for the nesting or foraging of birds given the lack of trees or mature vegetation structure needed for foraging as discussed below. In addition, the City's General Plan Update EIR includes a survey for this species which states that no records of this species were found within the City's Planning Area and suitable habitat of dense riparian thickets are absent;
- Fresno kangaroo rat (*Dipodomys nitratoides exilis*): Federal and State listed Endangered. Surveys for this species were completed as part of the City's General Plan Update EIR. As discussed in the EIR, suitable habitat for this species does not occur within the City's Planning Area;
- Burrowing owl (*Athene cunicularia*): CDFW listed as a Species of Special Concern (SSC). The City's General Plan Update EIR included a survey for this species and reported that there are no records of this species occurring in the Planning Area but may occur in undisturbed agricultural lands. The project site does not exhibit habitat suitable for the nesting or foraging of raptors given the disturbed nature of the site and the lack of trees or mature vegetation structure needed for foraging as discussed below.
- Alkali-sink goldfields (*Lasthenia chrysantha*): California Rare Plant listed 1B.1. This species habitats include vernal pools, wetlands, and alkali flats. The project site does

not include suitable habitat for this species, and it is not expected to occur on the project site.

As discussed above, the project site is not expected to support the potential for the occurrence of the special status species identified by the CNDDB query.

Although considered somewhat degraded habitat, both the California Annual (Non-Native) Grassland and Disturbed/Ruderal vegetation communities have the potential to offer suitable conditions for wildlife use. However, the project site is void of any trees, shrubs or mature vegetation and contains little to no natural habitat. Some low-growing weedy vegetation was apparent during the project site visit, but lacking in any structure that could be used by nesting birds or raptors for nesting or foraging. No wildlife was observed at the time, and no birds were seen utilizing the property. Given the in-fill nature of the site, neighboring residential and commercial/retail development framing the subject parcel and overall level of activity in the neighborhood, wildlife use of the site is expected to be low.

Although the nature of the vacant in-fill lot, surrounding urban land uses and lack of connectivity between open spaces suggest that the presence of sensitive status species on-site is low, the possibility exists that the species identified above may occur on-site or utilize the site for foraging or movement. As such, impacts related to biological resources are considered *significant but mitigable* and implementation of mitigation measure BIO-1 will reduce impacts to less than significant levels.

(b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?*

The project site does not include any riparian habitat or other sensitive natural communities. According to the Selma General Plan Update 2035 EIR, there are no applicable habitat conservation plans or natural community preservation plans affecting Selma's Planning Area. The Recovery Plan for Upland Species of the San Joaquin Valley as well as a Draft Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon cover special-status species that have the potential to occur in the Selma Planning Area (Selma 2009). The General Plan EIR indicates that the Recovery Plans do not conflict with the 2035 General Plan and impacts are *less than significant*.

(c) *Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

As discussed under item *(b)*, above, the project site does not support riparian habitat or any jurisdictional wetlands. Impacts are considered *less than significant*.

(d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

In order to determine the nature of the project site's biological resources, a site visit was performed by Oliveira Environmental Consulting (Jeff Oliveira, Principal Environmental Planner, May 5, 2022), consisting of parallel transects walked over the property. The project site is relatively flat, absent of any water features or depressions with any evidence of ponding, and appeared to be regularly maintained. Although considered somewhat degraded habitat, the project site vegetation communities have the potential to offer suitable conditions for wildlife use. However, the project site is void of any trees, shrubs or mature vegetation and contains little to no natural habitat. Some low-growing weedy vegetation was apparent during the project site visit, but lacking in any structure that could be used by nesting birds or raptors for nesting or foraging. No wildlife was observed at the time, and no birds were seen utilizing the property. Given the in-fill nature of the site, neighboring residential and commercial/retail development framing the subject parcel and overall level of activity in the neighborhood, wildlife use of the site is expected to be low. As discussed above under item *(a)*, although the nature of the vacant in-fill lot, surrounding urban land uses and lack of connectivity between open spaces suggest that the presence of sensitive status species on-site is low , the possibility exists that special status species may occur on-site or utilize the site for foraging or movement. As such, *impacts are considered significant but mitigable* and implementation of mitigation measure BIO-1 will reduce impacts to less than significant levels. However, it is important to note that due to the lack of trees or mature vegetation on the project site, vegetation removal (clearing and grubbing) would not result in the destruction of active bird's nests as prohibited by the Fish and Game Code of California Sections 3503 and 3503.1 (raptors specifically).

(e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

The project would not adversely affect sensitive habitats or resources or native tree species. The project site is void of trees and no tree removal is proposed. In addition, there are no applicable habitat conservation plans or natural community preservation plans affecting Selma's Planning Area. Impacts are considered *less than significant.*

(f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The project is not located within an area under an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. The project is not within areas identified as critical habitat. As such, the project would result in *no impacts*.

Mitigation/Conclusion. Implementation of the following mitigation measure will reduce impacts to less than significant levels:

BIO-1 Special Status Species Pre-Construction Survey: Prior to project construction activities, follow-up focused surveys for special-status plant species and wildlife species shall be completed by a qualified biologist and submitted to the City Planning Department for review and approval. Focused surveys conducted within the project area between April and June shall be required in order to capture the blooming period of special-status plant species and allow further evaluation regarding their presence or absence within the project site. Additionally, current drought conditions likely affect blooming success of special-status plant species and they may not bloom and be as visible as in non-drought periods. Focused surveys for wildlife species identified to potentially occur within the project site as identified in the CNDDB search results shall be required to determine their presence or absence. In the event focused surveys locate special-status species, Best Management Practices (BMPs) shall be required to reduce impacts and shall be determined through coordination with USFWS and/or CDFW, depending on the species status.

V. CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Setting. The County of Fresno and the City of Selma possess a rich and diverse cultural heritage and therefore has a wealth of historic and prehistoric resources, including sites and buildings associated with Native American inhabitation, Spanish missionaries, and immigrant settlers.

As defined by CEQA, a historical resource includes:

1. A resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR).
2. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant. The architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural records of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence.

In addition, if it can be demonstrated that a project would cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC, Section 21083.2[a], [b]).
PRC, Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or

3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

As discussed in the General Plan Update EIR, the City of Selma was founded around 1890 and incorporated in 1893; the surrounding lands have been intensively farmed for over one hundred years. The Native American group inhabiting the San Joaquin Valley were the Yokuts. There were over forty Yokuts tribes separated into three geographical divisions, Northern, Southern Valley and Foothill. The Southern Valley Yokuts occupied the region around the City of Selma.

The City's General Plan Update includes a cultural records search conducted by the Southern San Joaquin Valley Historical Resources Information Center (HRIC) at California State University, Bakersfield for the Selma Planning Area. The records search indicated that there have been 20 previous cultural resource studies in the area and found no known cultural resources within the Planning Area or within a half-mile radius. According to the HRIC, no prehistoric resources have been reported.

Tribal Coordination and SB18/AB52

Under the requirements of Assembly Bill 52 (AB52), Native American outreach was initiated as part of the project coordination and research effort. In addition, as required under Senate Bill (SB) 18, any City or County proposing a General Plan amendment or Specific Plan must contact appropriate Native American tribal representatives for the purpose of entering into meaningful consultation between the tribes and the Lead Agency. In order to complete the required SB18 and AB52 process, the City of Selma contacted the Native American Heritage Commission and local Native American groups known to have knowledge of or ties to the project area via letters sent through certified mail June 8 2022. The City did not receive any requests for consultation during the 90-day tribal consultation period.

Impact.

(a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

The project site is vacant and does not contain any historic resources identified in the National Register of Historic Places or California Register of Historic Resources. The project site does not contain other structures of historic age (50 years or older) that could be potentially significant as a historical resource and is not located within the historic downtown or in an older residential area that would result in demolition, relocation or alteration of buildings of historical significance. Therefore, the project would not result in an adverse change in the significance of historical resources and *no impacts would occur.*

(b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

As determined in the Selma General Plan Update 2035 EIR, development facilitated by the 2035 General Plan Update could result in adverse effects to identified and previously unidentified archaeological resources and/or human remains. Although the project would rezone and amend the land use designation to allow for higher density residential uses, it would not change the planned residential use as evaluated in the General Plan EIR. The project does not include new physical disturbance beyond the residential uses included in the 2035 General Plan and evaluated in the General Plan EIR. The proposed project would be required to implement General Plan EIR Mitigation Measures 3.5.3.1a and 3.5.3.1b to reduce impacts in the event cultural resources or human remains are discovered. Mitigation Measures 3.5.3.1a and 3.5.3.1b of the General Plan EIR address the requirements for stopping work and providing professional archaeological services in the event of the accidental discovery of cultural or paleontological resources and human remains as well as the proper treatment of discovered materials. Impacts are considered *significant but mitigable* and implementation of the City's General Plan Update EIR mitigation shall be required.

(c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Based on existing conditions, buried human remains are not expected to be present in the site area. In the event of an accidental discovery or recognition of any human remains, California State Health and Safety Code Section 7050.5 require that no further disturbances shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. Impacts are considered *significant but mitigable* and adherence to State Health and Safety Code Section 7050.5 and the General Plan Update measures discussed above shall be required to reduce impacts to less than significant levels with mitigation incorporated.

Mitigation/Conclusion. In the event unanticipated sensitive archaeological resources or human remains are discovered during project construction activities, adherence with the following mitigation would reduce potential impacts to less than significant.

CR-1 Unintended Discovery of Cultural Resources: In the event that cultural or paleontological resources are encountered during project construction, all earth-moving activity within 50 feet of the find shall cease until the applicant retains the services of a qualified archaeologist or paleontologist. The archaeologist or paleontologist shall examine the findings, assess their significance, and offer recommendations for procedures deemed appropriate to either further investigate or mitigate adverse impacts on those cultural, paleontological or archaeological

resources that have been encountered (e.g., excavate the significant resource) prior to re-commencement of construction in the affected area.

If human bone or bone of unknown origin is found during project construction, all work shall stop within 50 feet of the find and the County Coroner shall be contacted immediately. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission. The Native American Heritage Commission shall notify the person considered to be the most likely descendant. The most likely descendant will work with the project applicant to develop a program for the re-interment of the human remains and any associated artifacts. No additional work shall take place within the immediate vicinity of the find until the identified appropriate actions have been completed.

Project personnel shall not collect or retain artifacts found at the site. Prehistoric resources may include, but would not be limited to: chert or obsidian flakes; projectile points; mortars and pestles; and dark friable soils containing shell, fragmentary bone, dietary debris, scorched rock, or human remains. Historic resources may include, but would not be limited to, stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits, including those in old wells and privies.

If development and/or modification of the historic structures reported by the Center for Archeological Research at CSU, Bakersfield is proposed, a historic analysis of such modification shall be made, including consultation with the State Historic Preservation Office. Historic features or elements that are considered to be significant shall be preserved. If such preservation is not feasible, mitigation shall include:

- Relocation of the structure to a location that is historically suitable; or
- Recordation of feature through archival photography and donation of artifacts to the local museum.

VI. ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

Setting: Pacific Gas & Electric Company (PG&E) is the primary electricity provider for the City of Selma. Approximately 31% of electricity provided by PG&E is sourced from renewable resources and per the PG&E Power Mix chart, a total of 84% of power generation and purchases are greenhouse gas free (PG&E 2020).

The California Building Code (CBC) contains standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The CBC includes mandatory green building standards for residential and nonresidential structures, the most recent version of which are referred to as the *2019 Building Energy Efficiency Standards*. These standards focus on four key areas: smart residential photovoltaic systems, updated thermal envelope standards (preventing heat transfer from the interior to the exterior and vice versa), residential and nonresidential ventilation requirements, and non-residential lighting requirements.

Development of the proposed project would involve the use of energy during the construction and operational phases. Energy use during construction phases would be in the form of fuel consumption (e.g.: gasoline and diesel fuel) to operate heavy equipment, light-duty vehicles, machinery, and generators for lighting. In addition, temporary grid power may also be provided to any temporary construction trailers or electric construction equipment. Long-term operation of the projects would require permanent grid connections for electricity and natural gas service to power internal and exterior building lighting and heating and cooling systems. The increase in vehicle trips associated with implementation of the rezone and General Plan amendment would also increase fuel consumption within Selma.

Impact: #

(a) *Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

Project implementation would require minimal consumption of energy resources. During construction, fossil fuels, electricity, and natural gas would be used by construction vehicles and equipment. The energy consumed during construction would be temporary and would not represent a significant or wasteful demand on available resources. Energy demands during project occupation would be provided through existing infrastructure and would not substantially increase over existing demands. Operational energy use would be consistent with that of similar multi-family residences and commercial uses and would not be wasteful or inefficient. There are no unique project characteristics that would result in a significant increase in energy usage, or an inefficient, wasteful use, or unnecessary consumption of energy resources. Potential impacts would be *less than significant*.

(b) *Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Implementation of the project would not result in a significant new energy demand and there are no project components or operations that would conflict with state or local plans for renewable energy or energy efficiency. Compliance with State laws and regulations, including the most recent Building Code requirements, will ensure the project continues to reduce energy demands and greenhouse gas emissions through, for example, increasing state-wide requirements that energy be sourced from renewable resources.

As discussed in Section VIII, *Greenhouse Gas Emissions*, Selma has not adopted a Climate Action Plan. In the absence of a Climate Action Plan that directly addresses SB 32, the adopted SJVAPCD Climate Change Action Plan (CCAP) remains the most appropriate GHG reduction plans with which to assess an individual project's consistency with statewide policies to reduce GHG emissions. The CCAP outlines the SJVAPCD's GHG emission reduction goals and emissions-reduction measures may be implemented, several of which are energy-related in nature. In addition, the 2035 General Plan contains goals and policies that would substantially reduce GHG emissions (Land Use Element Policy 1.20 -1.21, Circulation Element Policy 2.1, 2.3-2.5, 2.7, 2.44-2.49, 2.53-2.54, 2.60-2.63, and Open Space, Conservation and Recreation Element Policy 5.3-5.4, 5.19-5.23, 5.27, 5.29). As mentioned above in Section III, *Air Quality*, the project would be consistent with growth projections in the General Plan EIR and therefore, would not conflict with energy projections made within the SJVAPCD CCAP. Impacts would be *less than significant*.

Mitigation/Conclusion: The project would not result in a significant energy demand during short-term construction or long-term operations and would not conflict with state or local renewable energy or energy efficiency plans. Therefore, potential impacts related to energy would be less than significant and no mitigation measures are necessary.

VII. GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☒	☐
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Setting: The Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) is a California state law that was developed to regulate development near active faults and mitigate the surface fault rupture potential and other hazards. The Alquist-Priolo Act identifies active earthquake fault zones and restricts the construction of habitable structures over known active or potentially active faults. The City of Selma is located in a geologically complex and seismically active region.

The City General Plan Safety Element identifies faults that are considered potentially active or have uncertain fault activity in the City. The Safety Element establishes policies that require new development to be located away from active and potentially active faults. The element also requires that the City enforce applicable building codes relating to seismic design of structures and require design professionals to evaluate the potential for liquefaction or seismic settlement to impact structures in accordance with the Uniform Building Code.

Groundshaking refers to the motion that occurs in response to local and regional earthquakes. Seismic groundshaking is influenced by the proximity of the site to an earthquake fault, the intensity of the seismic event, and the underlying soil composition. Groundshaking can endanger life and safety due to damage or collapse of structures or lifeline facilities. The California Building Code (CBC) includes requirements that structures be designed to resist a certain minimum seismic force resulting from ground motion.

Liquefaction is the sudden loss of soil strength due to a rapid increase in soil pore water pressures resulting from groundshaking during an earthquake. Liquefaction potential increases with earthquake magnitude and groundshaking duration. Low-lying areas adjacent to creeks, rivers, beaches, and estuaries underlain by unconsolidated alluvial soil are most likely to be vulnerable to liquefaction. The CBC requires the assessment of liquefaction in the design of all structures.

Landslides and slope instability can occur as a result of wet weather, weak soils, improper grading, improper drainage, steep slopes, adverse geologic structure, earthquakes, or a combination of these factors. Despite current codes and policies that discourage development in areas of known landslide activity or high risk of landslide, there is a considerable amount of development that is impacted by landslide activity each year. The project is located in an area of flat topography with minimal to no potential for landslides.

Shrink/swell potential is the extent to which the soil shrinks as it dries out or swells when it gets wet. Extent of shrinking and swelling is influenced by the amount and kind of clay in the soil. Shrinking and swelling of soils can cause damage to building foundations, roads and other structures. A high shrink/swell potential indicates a hazard to maintenance of structures built in, on, or with material having this rating. Moderate and low ratings lessen the hazard accordingly. As discussed above under Section II, Agriculture and Forestry Resources, the project site consists of the soil types defined as; Delhi sand (0 to 3% slopes), Delhi loamy sand (0 to 3% slopes), and Hesperia fine sandy loam. Delhi sand (0-3% slopes) is characterized as somewhat excessively drained with a negligible runoff classification. Delhi loamy sand (0-3% slopes) is characterized as somewhat excessively drained with a very low runoff classification. Hesperia fine sandy loam is characterized as well drained with a negligible runoff potential. This soil exhibits low erodibility and low shrink-swell characteristics.

Paleontological resources are fossilized remains of ancient environments, including fossilized bone, shell, and plant parts; impressions of plant, insect, or animal parts preserved in stone; and preserved tracks of insects and animals. Paleontological resources are considered nonrenewable resources under state and federal law. Paleontological sensitivity is defined as the potential for a geologic unit to produce scientifically significant fossils, as determined by rock type, past history of the rock unit in producing fossil materials, and fossil sites that have been recorded in the unit. Paleontological resources are generally found below ground surface in sedimentary rock units. The boundaries of the sedimentary rock unit is used to define the limits of paleontological sensitivity in a given region.

As discussed in the Geotechnical Engineering Investigation prepared for the proposed project (Salem Engineering Group, Inc., August 5, 2022), the project site is in the San Joaquin Valley, which is a topographic and structural basin that is bounded on the east by the Sierra Nevada and on the west by the Coast Ranges. The Sierra Nevada, a fault block dipping gently southwestward, is made up of igneous and metamorphic rocks of pre-Tertiary age that comprise the basement complex beneath the Valley. The Coast Ranges contain folded and faulted sedimentary rocks of Mesozoic and Cenozoic age, which are similar to those rocks that underlie the Valley at depth and non- conformably overlie the basement complex; gently dipping to nearly horizontal sedimentary rocks of Tertiary and Quaternary age overlie the older rocks. The Coast Ranges evolved as a result of folding, faulting and accretion of diverse geologic terrains. They are composed chiefly of sedimentary and metamorphic rocks that are sharply deformed into complex structures. They are broken by numerous faults, the San Andreas Fault being the most notable feature.

The San Joaquin Valley is within the Great Valley Geomorphic Province of California. The San Joaquin Valley has been filled with sedimentary deposits of Mesozoic and Cenozoic sediments derived from the Sierra Nevada and Coast Ranges. Based on review of the Geologic Map of California: Fresno Sheet 1, the area of the subject site is in an area mapped as Quaternary age Great Valley Fan Deposits (Qf), described as “sediments deposited from water streams emerging from the highlands surrounding the Great Valley.

Impact.

(a) *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*

(a-i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

As discussed in the project geotechnical report, based on the proximity of several dominant active faults and seismogenic structures, as well as the historic seismic record, the area of the subject site is considered subject to relatively low seismicity.

The project area is not within an Alquist-Priolo Special Studies Zone and will not require a special site investigation by an Engineering Geologist. Soils on site are classified as Site Class D

in accordance with Chapter 16 of the California Building Code. The proposed structures are determined to be in Seismic Design Category D.

To determine the distance of known active faults within 100 miles of the site, the project geotechnical report used the United States Geological Survey (USGS) web-based application *2014 National Seismic Hazard Maps - Fault Parameters*. The ten closest active faults are summarized below in Table 6.

Table 6. Regional Fault Summary

Fault Name	Distance to Site (miles)	Maximum Earthquake Magnitude, M_w
Great Valley 13 (Coalinga)	39.39	7.1
Great Valley 14 (Kettleman Hills)	40.86	7.2
Great Valley 12	43.12	6.4
Great Valley 11	45.94	6.6
Great Valley 10	56.81	6.5
Great Valley 9	64.57	6.8
S. San Andreas; PK+CH+CC+BB+NM+SM	64.83	7.8
San Andreas fault - creeping segment	64.96	N/A
S. San Andreas; CH+CC+BB+NM+SM	67.47	8.0

The faults tabulated above and numerous other faults in the region are sources of potential ground motion. However, earthquakes that might occur on other faults throughout California are also potential generators of significant ground motion and could subject the site to intense ground shaking.

The site is not within a currently established State of California Earthquake Fault Zone for surface fault rupture hazards. No active faults with the potential for surface fault rupture are known to pass directly beneath the site. The potential for surface rupture due to faulting occurring beneath the site during the design life of the proposed development is considered low. Therefore, the project would not have the potential to result in substantial adverse effects involving rupture of a known earthquake fault and impacts would be *less than significant.*

(a-ii) Strong seismic ground shaking?

Based on the 2019 CBC, a Site Class D was selected for the site based on soil conditions with standard penetration resistance, N-values, averaging between 15 and 50 blows per foot. Based on Office of Statewide Health Planning and Development (OSHPD) Seismic Design Maps, the estimated design peak ground acceleration adjusted for site class effects (PGAM) was determined to be 0.350 g (based on both probabilistic and deterministic seismic ground motion).

The project would be required to comply with the California Building Code (CBC) and other applicable standards to ensure the effects of a potential seismic event would be minimized through compliance with current engineering practices and techniques. The project does not include unique components that would be particularly sensitive to seismic ground shaking or result in an increased risk of injury or damage as a result of ground shaking. Implementation

of the project would not expose people or structures to significant increased risks associated with seismic ground shaking; therefore, impacts would be *less than significant.*

(a-iii) Seismic-related ground failure, including liquefaction?

Soil liquefaction is a state of soil particles suspension caused by a complete loss of strength when the effective stress drops to zero. Liquefaction normally occurs under saturated conditions in soils such as sand in which the strength is purely frictional. Primary factors that trigger liquefaction are: moderate to strong ground shaking (seismic source), relatively clean, loose granular soils (primarily poorly graded sands and silty sands), and saturated soil conditions (shallow groundwater). Due to the increasing overburden pressure with depth, liquefaction of granular soils is generally limited to the upper 50 feet of a soil profile.

As discussed in the project geotechnical report, the soils encountered on-site are generally loose to medium dense silty sand, underlain by interbedded layers of sandy silt, loose poorly graded sand with silt, and silty sand to the maximum depth explored of 31.5 feet below site grade. Free groundwater was not encountered to the maximum depth explored of 31.5 feet BGS during this investigation. Historic groundwater depths in the region are reported around 13.8 feet below site grade, in 1946.

The geotechnical report stipulates that due to the relative density of the soils encountered during this investigation and the relatively low peak ground acceleration, the potential for liquefaction/seismic settlement to impact the site is considered low. In addition, the project would be required to comply with CBC seismic requirements to address the site's potential for seismic-related ground failure including liquefaction; therefore, the potential impacts would be *less than significant.*

(a-iv) Landslides?

The project site is flat in topography and nearly level. Landslide hazards for the proposed project were analyzed in the project geotechnical report which concludes that there are no known landslides at the project site, nor is the site in the path of any known or potential landslides. The risk of landslides is not considered a potential hazard and impacts would be *less than significant.*

(b) Result in substantial soil erosion or the loss of topsoil?

The project is expected to disturb the approximately 16-acre project site, however, the site is a vacant field and does not include substantial vegetation removal. The project soils have low shrink swell potential and very low to negligible runoff potential. As discussed in the City's General Plan Update EIR (Appendix A of the General Plan Update EIR), Notice of Preparation/Initial Study), development under the General Plan will not be located in areas of steep slope and will not increase the slopes or grading of soil in the Planning Area substantially enough to increase the rate of runoff and subsequent soil erosion or loss of topsoil. As such, potential impacts related to soil erosion and loss of topsoil are considered *less than significant.*

(c) *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

Lateral spreading is a phenomenon in which soils move laterally during seismic shaking and is often associated with liquefaction. The amount of movement depends on the soil strength, duration and intensity of seismic shaking, topography, and free face geometry. Due to the relatively flat site topography, the project geotechnical report states that the likelihood of lateral spreading on-site is very low.

Landslides typically occur in areas with steep slopes or in areas containing escarpments. There are no known landslides at the site, nor is the site in the path of any known or potential landslides. The project geotechnical report concludes that the potential for a landslide is not considered to be a hazard for this project.

In addition, the project would be required to comply with CBC seismic requirements to address potential seismic-related ground failure including lateral spread.

As discussed above, the geotechnical report stipulates that due to the relative density of the soils encountered during this investigation and the relatively low peak ground acceleration, the potential for liquefaction to impact the site is considered low. In addition, the project would be required to comply with CBC seismic requirements to address the site's potential for seismic-related ground failure including liquefaction. In addition, as provided in the City's General Plan Update EIR, the Building Code provides that non-single-family projects must be designed by an engineer or architect to resist any seismic-related impacts, including liquefaction, and must be designed for the appropriate soil type by an engineer to resist spreading, subsidence or collapse. The Five-County Seismic Safety Element places the City Planning Area in an area of minimal ground shaking with little to no likelihood of ground failure (i.e., subsidence or collapse) or liquefaction.

Although the impacts discussed above are considered less than significant, the project geotechnical report has identified on-site soil characteristics that will need to be addressed in order to support the proposed development. This includes project engineering recommendations and construction specifications designed to address soil conditions. As such, impacts related to site development would be *less than significant with mitigation incorporated.*

(d) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

Based on the Web Soil Survey, the project site is not located within an area known to contain expansive soils as defined in the Uniform Building Code. However, all future development would be required to comply with the most recent CBC requirements, which have been developed to properly safeguard structures and occupants from land stability hazards, such as expansive soils. Therefore, potential impacts related to expansive soil would be *less than significant.*

(e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The proposed project does not include the use of septic tanks or alternative wastewater disposal systems. The project would be served by the City's wastewater and stormwater infrastructure and sewer system. Based on compliance with existing regulations and requirements, potential wastewater impacts would be *less than significant*, and no mitigation measures are required.

(f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No known paleontological resources are known to exist in the project area and the project site does not contain any unique geologic features. The project does not include substantial grading or earthwork that would disturb the underlying geologic formation in which paleontological resources may occur. However, the General Plan Update EIR includes Mitigation Measure 3.5.3.1a, which stipulates that in the event that paleontological resources are encountered during project construction, all earth-moving activity within 50-feet shall cease until the services of a qualified paleontologist are secured to address the finding. These requirements have been incorporated as Mitigation Measure CR-1 under Section V, Cultural Resources,. Project impacts related to unique paleontological resources are considered *significant but mitigable* with the implementation of the required mitigation measure.

Mitigation/Conclusion. In order to address the potential impacts related to construction of the proposed multi-family and commercial development, the project geotechnical report includes recommendations to address multiple details of the project design and construction.

GEO-1. <u>Project Geotechnical Report Recommendations:</u> The project Geotechnical Report conclusions and recommendations indicate that the site is suitable for the proposed development from a geotechnical engineering standpoint; however, recommendations for project design and construction are included to address potential subsurface conditions. The Geotechnical Report includes detailed recommendations for the following issues:

- general conclusions,
- surface drainage,
- site grading,
- soil and excavation characteristics,
- materials for fill,
- seismic design criteria,
- shallow foundations,
- interior concrete slabs on grade,
- exterior concrete slabs on grade,
- pool shell design and decking,
- lateral earth pressures and frictional resistance,
- retaining walls,
- temporary excavations,
- underground utilities,
- pavement design, and
- plan review, construction observation and testing.

Therefore, the applicant shall be required to implement the recommendations listed in the project Geotechnical Report as required conditions of project approval. These measures shall be listed on the building plans and implemented per the recommendations in the Geotechnical Report. Implementation of this measure and the requirements of Mitigation Measure CR-1 referenced above under item *(f)* will reduce impacts related to construction on the project site soils to less than significant levels.

VIII. GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Setting. Greenhouse gases (GHG) are any gases that absorb infrared radiation in the atmosphere, and are different from the criteria pollutants discussed in Section III, Air Quality, above. The primary GHGs that are emitted into the atmosphere as a result of human activities are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. These are most commonly emitted through the burning of fossil fuels (oil, natural gas, and coal), agricultural practices, decay of organic waste in landfills, and a variety of other chemical reactions and industrial processes (e.g., the manufacturing of cement).

Carbon dioxide is the most abundant GHG and is estimated to represent approximately 80-90% of the principal GHGs that are currently affecting the earth's climate. According to the ARB, transportation (vehicle exhaust) and electricity generation are the main sources of GHGs in the state.

In October 2008, ARB published its *Climate Change Proposed Scoping Plan*, which is the State's plan to achieve GHG reductions in California required by Assembly Bill (AB) 32. This initial Scoping Plan contained the main strategies to be implemented in order to achieve the target emission levels identified in AB 32. The Scoping Plan included ARB-recommended GHG reductions for each emissions sector of the state's GHG inventory. The largest proposed GHG reduction recommendations were associated with improving emissions standards for light-duty vehicles, implementing the Low Carbon Fuel Standard program, implementation of energy efficiency measures in buildings and appliances, the widespread development of combined heat and power systems, and developing a renewable portfolio standard for electricity production.

Senate Bill (SB) 32 and Executive Order (EO) S-3-05 extended the state's GHG reduction goals and require CARB to regulate sources of GHGs to meet the following goals:

- Reduce GHG emissions to 1990 levels by 2020;
- Reduce GHG emissions to 40% below 1990 levels by 2030;
- Reduce GHG emissions to 80% below 1990 levels by 2050.

The initial Scoping Plan was first approved by CARB on December 11, 2008, and is updated every 5 years. The first update of the Scoping Plan was approved by the CARB on May 22, 2014, which looked past 2020 to set mid-term goals (2030–2035) toward reaching the 2050 goals. The most recent update released by CARB is the 2017 Climate Change Scoping Plan, which was released in November 2017. The 2017 Climate Change Scoping Plan incorporates strategies for achieving the 2030 GHG-reduction target established in SB 32 and EO S-3-05.

As discussed above, SB 32 requires the state to reduce GHG levels by 40 percent below 1990 levels by the year 2030. According to the California Greenhouse Gas Emissions for 2000 to 2017, Trends of Emissions and Other Indicators published by the California Air Resources Board, emissions of GHG statewide in 2017 were 424 million $MMTCO_2e$, which was 7 million MTCO2e below the 2020 GHG target of 431 $MMTCO_2e$ established by AB 32.

In August 2008, the SJVAPCD governing board adopted the Climate Change Action Plan (CCAP). The CCAP directed the SJVAPCD to develop guidance to assist lead agencies, project proponents, permit applicants, and interested parties in assessing and reducing the impacts of project-specific GHG emissions on global climate change in the context of promoting GHG reductions consistent with AB 32, SB 32, and the CARB Scoping Plan.

In the absence of a Climate Action Plan that directly addresses SB 32, the adopted SJVAPCD CCAP remains the most appropriate GHG reduction plans with which to assess an individual project's consistency with statewide policies to reduce GHG emissions. In addition, the 2035 General Plan Update contains goals and policies that would substantially reduce GHG emissions (Land Use Element Policy 1.20 -1.21, Circulation Element Policy 2.1, 2.3-2.5, 2.7, 2.44-2.49, 2.53-2.54, 2.60-2.63, and Open Space, Conservation and Recreation Element Policy 5.3-5.4, 5.19-5.23, 5.27, 5.29). Therefore, if the project is consistent with the applicable GHG reduction plan, then its GHG emissions impacts would be considered individually and cumulatively less than significant.

Impact.

(a-b) Pursuant to Appendix E, a qualified Air Quality Specialist conducted a Focused Air Quality Study that analyzes the potential greenhouse gas (GHG) impacts generated from the proposed project. Not all GHGs exhibit the same ability to induce climate change, as a result, GHG contributions are commonly quantified as carbon dioxide equivalents (). The proposed projects operational Co_2eemissions were estimated using CalEEMod and are depicted in the table below:

Table 7. Estimated Annual Greenhouse Gas Emissions

	CO_2 Emissions metric tons	**CH_4 Emissions metric tons**	**N_2O Emissions metric tons**	**Co_2e Emissions metric tons**
Project Operations	1,936.28	1.73	0.12	2,013.75

Source: Appendix E – Focused Air Quality Study

Following the adoption of SJVAPCD's Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA, several new laws and executive orders were adopted that require additional statewide reductions in years after 2020. For instance, Senate Bill 32 requires that GHG emissions be 40% less than 1990 levels by 2030 statewide. More drastic still, Senate Bill 100 which was signed by the Governor recently requires 100%

zero-carbon electricity by 2045 statewide. On the day SB 100 was signed into law, the Governor also signed Executive Order B-55-18 which commits California to total, economy-wide carbon neutrality by 2045.

In addition, the 2008 Climate Change Scoping Plan also indicates that GHG emissions will increase to approximately 596.41 million metric tons of CO2e by 2020. It is widely understood that climate change is a "global" issue and, as such, GHG emissions are a cumulative problem and can only be
evaluated as such.

The Project would generate GHGs from electricity use and combustion of gasoline/diesel fuels, each of which is regulated near the top of the supply-chain. As such, each citizen of California (including those creating emissions of this Project) will have no choice but to purchase electricity and fuels produced in a way that is acceptable to the California market. Thus, Project GHG emissions will be consistent with the relevant plan (i.e., AB 32 Scoping Plan). The Project would meet its fair share of the cost to mitigate the cumulative impact of global climate change because energy purchases are from the California market. Thus, consumers of electricity and transportation fuels are in effect regulated by higher level emissions restrictions on the producers of these energy sources. Therefore, the Project would have a *less than significant impact* on applicable GHG reduction plans and the Project's contribution to cumulative global climate change impacts would not be cumulatively considerable.

Mitigation/Conclusion: The Project's contribution to cumulative global climate change impacts would not be cumulatively considerable. Potential impacts related to energy would be less than significant and no mitigation measures are necessary.

IX. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Setting. The Hazardous Waste and Substances Site (Cortese) List is a planning document used by the State, local agencies, and developers to comply with CEQA requirements related to the disclosure of information about the location of hazardous materials release sites. Government Code section

65962.5 requires the California EPA to develop at least annually an updated Cortese List. Various state and local government agencies are required to track and document hazardous material release information for the Cortese List. The California Department of Toxic Substance Control's (DTSC's) EnviroStor database tracks DTSC cleanup, permitting, enforcement, and investigation efforts at hazardous waste facilities and sites with known contamination, such as federal superfund sites, state response sites, voluntary cleanup sites, school cleanup sites, school investigation sites, and military evaluation sites. The State Water Resources Control Board's (SWRCB's) GeoTracker database contains records for sites that impact, or have the potential to impact, water in California, such as Leaking Underground Storage Tank (LUST) sites, Department of Defense sites, and Cleanup Program Sites. The remaining data regarding facilities or sites identified as meeting the "Cortese List" requirements can be located on the CalEPA website: https://calepa.ca.gov/sitecleanup/corteselist/. The project would not be located in an area of known hazardous material contamination and is not on a site listed on the Cortese List (State Water Resources Control Board [SWRCB] 2015.

The California Health and Safety Code provides regulations pertaining to the abatement of fire related hazards and requires that local jurisdictions enforce the California Building Code, which provides standards for fire resistive building and roofing materials, and other fire-related construction methods. The project is not located within a high fire hazard area and the City Fire Department would be able to respond to a call regarding fire or life safety. For more information about fire-related hazards and risk assessment, see Section XX. Wildfire.

In order to determine the potential likelihood of hazardous materials impacts related to development of the project site, a Phase I Environmental Site Assessment (ESA) Report was prepared for the proposed project (Haro Environmental, May 11, 2022). As discussed in the project Phase I ESA report, there were no recognized environmental conditions (REC) found at the project site or in connection with the site. A REC is defined as any hazardous substance or petroleum product which has existed, exists, or can likely be released at or adjacent to the property soil, surface water, or groundwater.

Based on the findings of the Phase I ESA report, a potential environmental condition was identified associated with the historic use of the site for agricultural production and based on the site vicinity to a major arterial highway (Highway 43).

As discussed in the Phase I ESA report, agricultural farming practices often include the application of chemicals to control pests and weeds. Although no evidence of agricultural chemical usage at the project site was found, since agricultural land use appears in historic aerial photographs beginning in at least 1937 and continuing through at least 1998, there is a potential for residual concentrations of agricultural chemicals that could persist in soils at the subject site.

In addition, the project site is bordered to the west by Highland Avenue (Highway 43) and to the south by Nebraska Avenue. Both roads have been shown as major highways on historic maps. Based on the historical use of leaded gasoline prior to 1987, there is a potential for elevated concentrations of lead to be present in shallow soils along roads and highways constructed prior to this date [identified as aerially-deposited lead (ADL)]. ADL concentrations in soils near highways are often attributed to emissions from vehicles powered by internal-combustion engines which previously used

leaded gasoline. Based on the location of the site to nearby highways, ADL concentrations may be present in shallow soils near the western and southern property boundaries.

Based on these findings, the report includes a recommendation that the property owner should consider collecting shallow soil samples from the site and testing them for chlorinated pesticides, arsenic and ADL consistent with applicable regulatory guidance.

As such, a Limited Soils Investigation Report (Haro Environmental, July 31, 2023) was prepared for the project site. The objective of the soils investigation was to identify the presence or absence of ADL, pesticides and arsenic at locations within the site boundaries that may have been impacted by historic agricultural operations and proximity to the highway. As part of the soils investigation, soil samples were collected from 26 locations at the project site for chlorinated pesticide and arsenic testing, and two samples for lead testing. The findings indicate the following:

- Arsenic was not detected above the laboratory reporting limit in any of the samples.
- Of the 22 pesticides tested for, only one, 4,4-DDE, was detected above the laboratory reporting limit. 4,4-DDE was detected in all seven composite soil samples at concentrations ranging from 8.4 to 20 micrograms per kilogram (µg/kg), which did not exceed the ESL or DTSC-Modified SL of 2,700 and 2,300 µg/kg, respectively.
- Lead was detected in both ADL samples (ADL1 and ADL2) at concentrations of 29.8 and 35.9 mg/kg, respectively. These concentrations did not exceed the ESL or DTSC-Modified SL of 82 and 80 mg/kg, respectively. In addition, lead concentrations did not exceed the thresholds to require soluble lead testing for disposal purposes.

Because the reported concentrations of chlorinated pesticides, arsenic, and lead were detected either below the laboratory reporting limits or below the risk-based regulatory screening levels, the report concludes that historic agricultural activities within the project site boundaries have not resulted in residual concentrations of pesticides or arsenic that would pose a health risk to current and future site residents, and that ADL is not present near Nebraska Avenue at concentrations that would pose a health risk to current and future site residents. Therefore, additional investigation or mitigation for the concentrations of chemicals detected during this investigation are not required.

Impact.

(a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

The project does not propose the routine transport, use or disposal of hazardous substances. Any commonly used hazardous substances within the project site (e.g., cleaners, solvents, oils, paints, etc.) would be transported, stored, and used according to regulatory requirements and existing procedures for the handling of hazardous materials. *Less than significant impacts* associated with the routine transport of hazardous materials would occur.

(b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

The project does not propose the handling or use of hazardous materials or volatile substances that would result in a significant risk of upset or accidental release conditions. Construction of the proposed project is anticipated to require use of limited quantities of hazardous substances, including gasoline, diesel fuel, hydraulic fluid, solvents, oils, paints, etc. Construction contractors would be required to comply with applicable federal and state environmental and workplace safety laws for the handling of hazardous materials, including response and clean-up requirements for any minor spills. Additionally, the construction contractor would be required to implement BMPs for the storage, use, and transportation of hazardous materials during all construction activities. Therefore, potential impacts would be *less than significant.*

(c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The project site located within 0.25 mile of an existing school facility (Eric White Elementary School); however, the project does not propose the handling or use of hazardous materials or volatile substances that would result in a significant risk of upset or accidental release conditions. Impacts are considered *less than significant*.

(d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

As discussed in the project Phase I ESA report, the subject site was not listed in any of the government agency database records for hazardous materials. One nearby property (Selma 76/Selma Quick Stop/Larrys Beacon/Beacon Station #480) located at 2004 South Highland (also addressed at 11946 South Highland) was listed in multiple databases searched. The Leaking Underground Storage Tank (LUST) listing for this property is identified as case #5T1000747 by the Central Valley Regional Water Quality Control Board (RWQCB) and as case #FA0000344 by Fresno County Environmental Health. The case was opened in April 2000; the potential contaminant of concern was gasoline affecting an aquifer used for drinking water supply. Remedial actions were taken in the form of soil vapor extraction (SVE) and the case was closed as of April 29, 2010. Based on investigation and monitoring data obtained from the Geotracker website depth to groundwater is approximately 50 feet ground surface and average groundwater flow direction was to the south-south with a hydraulic gradient of approximately 0.002 feet per foot. Based on the case closed status and on the reported groundwater flow direction to the south- southwest away from the project site, this former release case is not expected to pose a significant environmental concern to the project site.

In addition, the Phase I ESA report identified a potential environmental condition associated with the historic use of the site for agricultural production and based on the site vicinity to a major arterial highway (Highway 43). Based on these findings, the report includes a recommendation that the property owner should consider collecting shallow soil samples

from the site and testing them for chlorinated pesticides, arsenic and ADL consistent with applicable regulatory guidance.

As discussed above, a Limited Soils Investigation Report (Haro Environmental, July 31, 2023) was prepared for the project site. The objective of the soils investigation was to identify the presence or absence of ADL, pesticides and arsenic at locations within the site boundaries that may have been impacted by historic agricultural operations and proximity to the highway. As part of the soils investigation, soil samples were collected from 26 locations at the project site for chlorinated pesticide and arsenic testing, and two samples for lead testing. The findings indicate that the reported concentrations of chlorinated pesticides, arsenic, and lead were detected either below the laboratory reporting limits or below the risk-based regulatory screening levels, and the report concludes that historic agricultural activities within the project site boundaries have not resulted in residual concentrations of pesticides or arsenic that would pose a health risk to current and future site residents, and that ADL is not present near Nebraska Avenue at concentrations that would pose a health risk to current and future site residents. Therefore, additional investigation or mitigation for the concentrations of chemicals detected during this investigation are not required and *impacts related to hazardous materials are considered less than significant.*

(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The project site is not located within an airport land use plan or within 2 miles of a public airport or private airstrip. As such, impacts are considered to be *less than significant.*

(f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Implementation of the proposed project would not result in a significant temporary or permanent impact on any adopted emergency response plans or emergency evacuation plans. No breaks in utility service or road closures would occur as a result of project implementation. Any construction-related detours would include proper signage and notification and would be short-term and limited in nature and duration. Therefore, potential impacts would be *less than significant*.

(g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The project is flat, undeveloped and primarily void of vegetation and is not located within a high fire hazard area and emergency fire response would be provided by the City Fire Department. The project will be conditioned to implement building and site improvements in accordance with the Fire Code, including, but not limited to implementation of a fire safety plan. The project would be required to comply with all applicable fire safety rules and regulations including the California Fire Code and Public Resources Code prior to issuance of building permits; therefore, potential impacts would be *less than significant.*

Mitigation/Conclusion. Impacts are considered less than significant, and no further actions are required.

X. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv. Impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☒	☐	☐

Setting. Based on the analysis under the Selma General Plan Update 2035 EIR, the Clean Water Act (CWA), initially passed in 1972, regulates the discharge of pollutants into watersheds throughout the nation. Section 402(p) of the Clean Water Act establishes a framework for regulating municipal and

industrial stormwater discharges under the National Pollutant Discharge Elimination System (NPDES) Program. Section 402(p) requires that stormwater associated with industrial activity that discharges either directly to surface waters or indirectly through municipal separate storm sewers must be regulated by a NPDES permit. On December 8, 1999, the United States Environmental Protection Agency circulated Phase II regulations for non-point sources requiring permits for stormwater, including discharges from Small Municipal Separate Storm Sewer System (MS4s) operators. In California, the NPDES Program is administered by the State.

Under Section 404 of the Clean Water Act, a permit must be obtained from the US Army Corps of Engineers prior to discharge of dredged or fill material into waters of the United States, including wetlands. The purpose of this program is to ensure that water quality is protected from polluting discharges.

The State Water Resources Control Board (SWRCB) is responsible for implementing the Clean Water Act and does so by issuing NPDES permits. Federal regulations allow two permitting options for stormwater discharges: individual permits and general permits. The SWRCB elected to adopt a statewide general permit (Water Quality Order No. 2003-0004-DWQ) for MS4s covered under the Clean Water Act to efficiently regulate numerous stormwater discharges under a single permit. Permitees must meet the requirements in Provision D of the General Permit, which requires development and implementation of a Storm Water Management Plan SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable.

The State's Porter-Cologne Water Quality Control Act outlines the specific responsibilities of the Regional Water Quality Control Boards, and the procedures for coordinating with the SWRCB to meet federal Clean Water Act standards. Fresno County falls within the Central Valley Region, which is the largest in the state, stretching from the Oregon border south to Los Angeles County. It encompasses 60,000 square miles, or about 40 percent of the State's total area, and includes 38 of the State's 58 counties. The Central Valley Regional Water Quality Control Board (CVRWQCB) mission includes formulating and adopting water quality control plans for specific ground and surface water basins and prescribing and enforcing standard requirements on waste discharges. For the Selma area, these waste discharge requirements are found in the Water Quality Control Plan for the Tulare Lake Basin Second Edition Revised January 2004.

The National Pollution Discharge Elimination System (NPDES) program, under Section 402(p) of the Federal Clean Water Act, is administered locally by the Central Valley Regional Water Quality Control Board on behalf of the US EPA. The program is designed to reduce pollution from storm water discharge and may require a permit from parties discharging to lakes, streams, and other water bodies. In the case of the proposed project, a construction activity permit would be required since construction activities associated with the project would result in the disturbance of more than one acre. The permit would require that the following measures be implemented during construction activities: eliminate or reduce non-storm water discharges to storm water systems and other waters of the US, develop and implement a Storm-water Pollution Prevention Plan (SWPPP), and perform inspections of storm water control structures and pollution prevention measures.

As discussed in the City of Selma General Plan Update 2035, the primary surface waters in the vicinity of Selma include the Centerville and Kingsburg Canals, which run through the east side of the

community, Fowler Switch Canal and Rockwell Pond, which are located in the northwest part of the Planning Area, and the Kings River.

The Kings River is located approximately seven miles east of downtown Selma. The drainage area of the Kings River above Pine Flat Dam is 1,542 square miles, and the average annual flow at this point is 1,727,500 acre-feet (Friant Water Users Authority, September 2001). One of the districts diverting water from the Kings River is the 145,000-acre Consolidated Irrigation District (CID) within which Selma is located. This district uses an average of 239,000 AF of surface water annually to supplement an average of 80,500 acre-feet (AF) of pumped groundwater.

Selma is located in the Kings sub-basin of the San Joaquin Valley groundwater basin in the Tulare Lake hydrologic region. The sub-basin encompasses approximately 1,530 square miles and contains approximately 90 million acre-feet of water. Prior to agricultural and urban development, groundwater moved from areas of recharge along the eastern rim of the Valley to areas of discharge along the Valley axis. Recharge was primarily by seepage from stream flows. Under present conditions, groundwater is recharged primarily from stream flow percolation, from percolation basins developed by agricultural irrigation districts, percolation from storm drainage basins, and from treated wastewater disposal facilities and from percolation attributed to excess applied surface irrigation water. Groundwater depth in the Selma area is approximately 60 feet below ground surface level.

California Water Service (CWS) provides water service within the Selma City limits and to a small neighboring area of Fresno County. Water from the system comes from 15 underground water wells. The CWS wells have a maximum combined production capacity of approximately 13 million gallons per day (mgd), which equals approximately 9,028 gallons per minute (gpm). The maximum daily demand is 12 mgd, and the daily average demand is 5.9 mgd (6,600 AF per year). CWS reports that the system is adequate to satisfy current demand and provide required Uniform Fire Code fire flows, but it is expected that new wells and other facilities will be needed to keep ahead of demand. The City's groundwater is in compliance with all federal water requirements.

Impact.

(a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

The proposed project includes a total of 16 acres of disturbance. The project site supports soils with low to negligible runoff characteristics, and on-site topography is flat to nearly level. The project will be subject to standard City requirements for drainage, sedimentation and erosion control for construction and permanent use. Project grading will create exposed graded areas subject to increased soil erosion and down-gradient sedimentation. Adherence to required sedimentation and erosion control BMPs as part of a required SWPPP will adequately address these impacts. Additionally, disturbed areas will be permanently stabilized with impermeable surfaces and landscaping and stockpiles will be properly managed during construction to avoid material loss due to erosion.

Hydrological conditions related to soils and hydrology on and around the site have not changed since adoption of the General Plan EIR, and the project does not include new physical

disturbance beyond the residential uses included in the 2035 General Plan and evaluated in the General Plan EIR. Additionally, although future construction activities such as grading could have the potential to degrade water quality due to sediment erosion or the presence of contaminants located within the soils, short-term stormwater pollutant discharges would be mitigated through compliance with the applicable NPDES permitting process. Therefore, impacts related to water quality and wastewater discharge requirements would be *less than significant.*

(b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The Open Space, Conservation and Recreation Element of the City's General Plan include the following goal and policies regarding maintaining an adequate water supply and reducing groundwater overdraft. Goal 4 is to preserve groundwater quality and reduce overdraft conditions. Policy 5.7 states that Rockwell Pond shall be maintained as both a resource management area (water recharge) and community open space. Policy 5.18 states the City shall endeavor to mitigate, to the fullest extent possible, activities which will exacerbate groundwater overdraft. Policy 1.94 of the Land Use Element states that development shall be allowed only in areas that already have urban services or are within a master plan to provide those services. Policy 6.1 of the Public Services and Facilities Element calls for the City to coordinate the sewer, water and storm drainage master plans which implement adopted land use goals, objectives and policies and Federal and State regulations. These master plans shall be updated as needed and implemented through various funding mechanisms. Policy 6.2 requires the development and extension of infrastructure to proposed developments according to adopted elements and master plans.

While buildout of the project would introduce impervious surfaces to the project site, groundwater recharge in Selma occurs via Consolidated Irrigation District (CID) recharge ponds, which would not be altered as a part of the project. Additionally, as discussed above under Section 3, *Air Quality*, the project would not substantially increase the intensity of use in the City relative to the 2035 General Plan, as the project would be within the growth assumptions contained in the General Plan. Therefore, the project would not result in increased long-term water demand and would not impede sustainable groundwater management of the basin. Impacts on groundwater supplies and groundwater recharge would be *less than significant*.

(c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

(c-i) Result in substantial erosion or siltation on- or off-site?

The project will result in approximately 16 acres of site disturbance, which has the potential to temporarily increase erosion and sedimentation on-site that could runoff towards surrounding areas. The project would disturb more than 1.0 acre of soil and preparation of a SWPPP with Best Management Practices (BMPs) would be required to reduce the potential for

erosion to runoff from the site. The project would also be required to comply with NPDES permits for stormwater discharge. Based on required compliance with these requirements, implementation of the proposed project would not result in substantial erosion or siltation on- or off-site, and impacts would be *less than significant*.

(c-ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

The project site is not located within a 100-year flood zone. The project would result in an increase in impervious surface area on the project property as a result of the construction of the proposed multi-family residential and commercial development and associated site improvements.

The proposed project includes ground disturbance greater than 1.0 acre and will be subject to post-construction stormwater requirements through preparation and implementation of a SWPPP. The project would also be required to comply with NPDES permits for stormwater discharge. Based on required compliance with these requirements, implementation of the proposed project would not result in substantial erosion or siltation on- or off-site, and impacts associated with increased surface runoff resulting in flooding on- or off-site would be *less than significant.*

(c-iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

The project includes ground disturbance of more than 1.0 acre and will be subject to post-construction stormwater requirements through preparation and implementation of a SWPPP. Additionally, Mitigation Measure #3.8.3.2 from the Selma General Plan 2035 Update EIR requires future projects in Selma to demonstrate all necessary infrastructure is in place, infrastructure improvements are included as part of the project, and construction, operation, and maintenance of required infrastructure improvements are included. Based on required compliance with applicable state and city drainage and stormwater control regulations, the project's impacts associated with increased surface runoff resulting in exceedance of the capacity of existing or planned drainage systems are considered less than significant. However, the potential for substantial additional sources of polluted runoff would be considered a *significant but mitigable impact*, and implementation of the City General Plan EIR mitigation measure referenced above will be required to reduce impacts to less than significant.

(c-iv) Impede or redirect flood flows?

Based on the County FEMA Flood Hazard Map, the project site is not located within a 100-year flood zone. The project would be subject to standard County requirements for drainage, sedimentation, and erosion control for construction and operation. Compliance with County requirements will address drainage and flows. Therefore, *impacts would be less than significant.*

(d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

As discussed in the Selma General Plan 2035 Update EIR, only a small portion of Selma is within the 100-year flood zone, the project is located in Zone X, an area determined to be outside the 0.2% annual chance floodplain according to the Federal Emergency Management Agency (FEMA) Flood Maps and is not considered to be in a flood hazard area.

Selma is within the dam inundation zone of Pine Flat Dam. The General Plan EIR found that use of the evacuation routes identified in the 2035 General Plan and local emergency plans would adequately address this potential impact, and included Mitigation Measures #3.8.3.4a, #3.8.3.4b, #3.8.3.4c, #3.8.3.4d, #3.8.3.4e, #3.8.3.4f, #3.8.3.4g, #3.8.3.4h, and #3.8.3.4i, to help ensure that the 2035 General Plan policies would adequately protect residents of the city. These measures consist of the addition of new General Plan policies and the revision of existing policies to address flood hazards and dam inundation.

There is also no potential for seiche or tsunami in Selma due to the lack of a significant water body in the immediate vicinity. Therefore, impacts related to potential release of pollutants in flood hazard, tsunami, or seiche zones would be *less than significant.*

(e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Consolidated Irrigation District is administratively responsible for the Central Kings Groundwater Sustainability Agency (GSA) under the Sustainable Groundwater Management Act (SGMA). As required under the General Plan EIR Mitigation Measure 3.8.3.2, project applicants must demonstrate that all necessary storm water drainage and disposal infrastructure to serve a project has been installed consistent with City and affected agency infrastructure plans and all improvements will be required to incorporate feasible measures to reduce public safety and environmental impacts. Please refer to the discussion under impact item *(b)* above for a discussion on groundwater recharge.

As outlined above, the higher-density housing allowed by the proposed project rezone and General Plan amendment would not violate water quality standards or degrade water quality during future construction or operation. The project does not include new physical disturbance beyond the residential uses included in the 2035 General Plan and evaluated in the General Plan EIR (i.e., full site buildout). However, consistent with the General Plan EIR, new development could introduce elevated levels of urban pollutants carried in storm water runoff. As such, impacts are considered *significant but mitigable*.

Mitigation/Conclusion. Implementation of the requirements of the General Plan Update EIR are required to reduce impacts related stormwater runoff and groundwater recharge regulations to less than significant levels.

HWQ-1 Storm Water Runoff. During the development review process, the project applicant shall demonstrate that all necessary infrastructure to serve the project will be installed or adequately financed. The applicant shall demonstrate that all infrastructure improvements are consistent with City infrastructure plans and applicable plans of affected agencies (i.e., CID), and all infrastructure improvements shall incorporate a range of feasible measures that can be implemented to reduce public safety and/or environmental impacts associated with the construction, operation, or maintenance of any required improvements.

XI. LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☒	☐
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Setting. All development within the City of Selma limits must conform to the land use designations outlined in the Selma General Plan. Goals, objectives, policies and standards contained in each Element of the General Plan provide direction on how the various land use designations should be developed in order to contribute to the overall character of Selma. Per State law, the City's General Plan is the primary planning document and all other City plans and policies must be consistent with the General Plan. The Selma General Plan Update contains a number of policies that apply to land use impacts in conjunction with ultimate build-out of the City in accordance with the General Plan.

The site is bounded to the north by Fig Street and residential development; to the east by local access road and further east by elementary school and Ringo Park, to the south by vacant lot, Nebraska Avenue and, and to the southwest by Super Drive Inn and 76 Fuel Station, and west side by Highland Avenue. The current zone of the subject property is R-1-7, which allows for 3 to 5.5 units per acre. The proposed project includes a request to change the zone from R-1-7 to R-3 (Medium High Density, 8 to 14 units per acre) on approximately 9 acres, C-3 (Regional Commercial) on 6 acres and OS (Open Space) on 1 acre. It is important to note that, according to Table 1-1 (Land Use and Zoning Consistency) of the General Plan Update Land Use Element, the R-3 zone would also be consistent with Medium High Density development of up to 14 units per acres. As such, the proposed zone change would modify the maximum allowable residential density from a maximum of 5.5 dwelling units/acre to up to 14 dwelling units/acre.

The proposed project was reviewed by City staff for consistency with policy and/or regulatory documents relating to the environment and appropriate land use. With the required implementation of the mitigation measures listed under this Initial Study, the project was found to be consistent with these documents.

The project is not within or adjacent to a habitat or community conservation plan. The project is consistent or compatible with the surrounding uses as discussed in this Initial Study.

Impact.

(a) Physically divide an established community?

The project would rezone a vacant parcel from R-1-7 to an R-3 zone on approximately 9 acres, C-3 (Regional Commercial) on 6 acres and OS (Open Space) on 1 acre. It should be noted that the current zoning is not consistent with the General Plan land use designation, which requires a higher density at the project site. As described in the Background section above, Selma is required to implement Program 4 of the City's 2007 Regional Housing Needs Allocation (RHNA) cycle. In order to stay in compliance, Selma must identify and up zone several parcels throughout the City. Additionally, the project does not include any proposed changes to the Land Use Element or Zoning Code that would result in development that would divide an established community in Selma as the surrounding land uses are residential, agricultural, and vacant land. Therefore, with approval of the proposed rezone and General Plan amendment, the project would not conflict with a land use plan, policy, or regulation or divide an established community. Therefore, the proposed project would not physically divide an established community and *less than significant impacts would occur.*

(b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The project would rezone a vacant parcel from R-1-7 to an R-3 zone on approximately 9 acres, C-3 (Regional Commercial) on 6 acres and OS (Open Space) on 1 acre. It should be noted that the current zoning is not consistent with the General Plan land use designation, which requires a higher density at the project site. As described in the Background section above, Selma is required to implement Program 4 of the City's 2007 Regional Housing Needs Allocation (RHNA) cycle. In order to stay in compliance, Selma must identify and up zone several parcels throughout the City. In order to stay in compliance, Selma must identify and up zone several parcels throughout the City. As a result, no conflicts with policies aimed at mitigating environmental impacts associated with the rezone and General Plan amendment would occur.

The project would be consistent with all other setback requirements, land use designations and the guidelines and policies for development within the General Plan for the proposed project land use designation. The project was found to be consistent with standards and policies set forth in the City's General Plan. The project would be required to be consistent with standards set forth by the City Fire Department and the City Public Works Department. With the granting of the requested land use zone change, the project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating environmental effects. The project is consistent with existing surrounding developments and does not contain sensitive on-site resources; therefore, the project would not conflict with policies or regulations adopted for the purpose of avoiding or mitigating environmental effects.

The project would be required to implement measures to mitigate potential impacts associated with air quality, geology and soils, hazards and hazardous materials and noise; therefore, the project would not conflict with policies or regulations adopted for the purpose of avoiding or mitigating environmental effects and impacts would be *less than significant.*

Mitigation/Conclusion. No inconsistencies were identified and therefore no additional measures above what will already be required are determined necessary. Impacts are considered less than significant.

XII. MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Setting. The California Surface Mining and Reclamation Act of 1975 (SMARA) requires that the State Geologist classify land into mineral resource zones (MRZ) according to the known or inferred mineral potential of the land (Public Resources Code Sections 2710–2796). The City of Selma does not contain significant mining resources or mining operations and does not contain any MRZ zones identified by the state.

Impact.

(a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

The project is not located within a designated mineral resource zone or within an area of significant mining resources. There are no known mineral resources in the project area; therefore, *no impacts would occur.*

(b) Result in the loss of availability of a locally- important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

There are no known or mapped mineral resources in the project area and the likelihood of future mining of important resources within the project area is very low. Therefore, *no impacts would occur.*

Mitigation/Conclusions. No impacts to mineral resources would occur and no mitigation measures are necessary.

XIII. NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Setting. According to the General Plan 2035 Update EIR, Selma regulates noise-related land use issues though its Noise Element of the General Plan (Chapter 3) and its adopted Noise Regulations (Title VI: Police Regulations, Chapter 17: Noise Regulations). The Noise Regulations of the Municipal Code specify location restrictions for different land uses, measurement criteria, monitoring procedures and noises prohibited. Construction, repair or remodeling work noise and the hours of its duration are also addressed by the Noise Regulations.

The 2035 General Plan establishes guidelines for a maximum “normally acceptable” exterior noise level of 60 dB(A) Ldn for new noise sensitive land uses including single family development and mobile homes, and 65 dB(A) Ldn for new multi-family residential uses and transient lodging such as motels and hotels.

The maximum “normally acceptable” exterior noise level for other sensitive receptors (hospitals, schools, libraries, churches, congregate care facilities uses) is shown as 70 dB(A) Ldn, but Selma has identified 65 dB(A) Ldn as the exterior limit to be maintained for noise sensitive uses without specific acoustic mitigation.

The City’s General Plan Policy 3.4 states that areas with *exterior* noise levels exceeding 65 dB(A) Ldn will be designated as noise impacted within the City of Selma. General Plan Policy 3.5 discourages development of noise sensitive land uses in noise impacted areas unless effective mitigation measures are incorporated into the specific design of such projects to reduce *exterior* noise levels to 65 dB(A) Ldn or less and 45 dB(A) Ldn or less within *interior* living spaces. General Plan Policy 3.7

limits noise levels at the project boundary to 65 dB(A) Ldn for industrial, commercial or other noise generating land uses (including roadways, railroads, and airports) when adjacent to planned or zoned noise sensitive land uses. General Plan Policy 3.9 states the preferred method of noise control used is thoughtful design; with use of artificial noise barriers a second choice. General Plan Policy 3.10 states that prior to approval of a proposed development in a noise impacted area, or the development of an industrial, commercial or other noise generating land use in or near an area containing existing or planned noise sensitive land uses, an acoustical analysis may be required.

The proposed project is not within close proximity of loud noise sources. However, the proposed project is located within a residential, commercial and agricultural area and based on the Noise Element's projected future noise generation from known stationery and vehicle-generated noise sources, the project is within an acceptable threshold area. The nearest sensitive receptors consist of the residential units located Fig Street north of the project site and the Eric White Elementary School to the east. Project implementation has the potential to result in noise generation from intermittent/temporary construction activities.

Impact.

(a) *Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

The General Plan 2035 Update establishes guidelines for a maximum "normally acceptable" exterior noise level of 60 dB(A) Ldn for new noise sensitive land uses including single family development and mobile homes, and 65 dB(A) Ldn for new multi-family residential uses and transient lodging such as motels and hotels.

The maximum "normally acceptable" exterior noise level for other sensitive receptors (hospitals, schools, libraries, churches, congregate care facilities uses) is shown as 70 dB(A) Ldn, but Selma has identified 65 dB(A) Ldn as the exterior limit to be maintained for noise sensitive uses without specific acoustic mitigation.

Construction Phase: During the construction phase of the project, noise generated from construction activities may intermittently dominate the noise environment in the immediate area. Short-term construction noise would be limited in nature and duration; however, construction activities would occur within close proximity of sensitive receptors in the community (residential and school uses). Construction-related noise would be limited to the daytime hours of 7:00 a.m. to 7:00 p.m. Potential construction-related noise impacts resulting from the proposed project construction activities could result in *significant but mitigable impacts*.

Operational Phase: The project site is located in an area that is surrounded by residential uses and the neighboring school. The General Plan 2035 Update EIR contains policies and mitigation measures to reduce operational noise impacts of buildout at the project site. The project does not include new physical disturbance beyond the residential uses included in the 2035 General Plan and evaluated in the General Plan EIR. Although the density on the project site would potentially be greater with the proposed rezone and General Plan amendment, with implementation of applicable policies and mitigation measures, the additional potential

buildout would not result in new or more severe operational noise impacts than those evaluated in the General Plan EIR. Additionally, future buildout of the project site would be subject to policies within the General Plan Noise and Circulation Element. These policies would reduce potential noise exposure impacts. Therefore, the project would not result operational noise levels in excess of any established standards and impacts would be *less than significant.*

(b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

The project does not propose substantial grading/earthmoving activities, pile driving, or other high impact activities that would generate substantial groundborne noise or groundborne vibration during construction. Construction equipment has the potential to generate minor groundborne noise and/or vibration, but these activities would be limited in duration and are not likely to be perceptible from adjacent areas. The project does not propose a use that would generate long-term operational groundborne noise or vibration. In addition, the City's Noise Ordinance deems it unlawful for any excessive noise-generating devices, appliances, equipment or vehicles on public or private property abutting noise sensitive land uses to operate between the hours of 7:00 p.m. and 7:00 a.m. Therefore, impacts related to exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels would be *less than significant.*

(c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The project site is not located in the vicinity of an airport and is not located within an Airport Land Use Plan. The project would not expose people living or working in the project area to excessive noise levels associated with an airport; therefore, *no impact would occur*.

Mitigation/Conclusion. In order to reduce noise impacts related to project construction to less than significant levels, the following mitigation is required:

N-1 Construction Noise Mitigation. Stationary construction equipment used for proposed construction within the community that generates noise exceeding 65 dBA at the project boundaries shall be shielded with the most modern and effective noise control devices (i.e., mufflers, lagging, and/or motor enclosures). Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction within the community shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed-air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used. All equipment shall be properly maintained to ensure that no additional noise, due to worn or improperly maintained parts, is generated. Stockpiling and vehicle staging areas shall be located as far as practical from sensitive noise receptors. Every effort shall be made to create the greatest

distance between noise sources and sensitive receptors during construction activities within the community.

Implementation of the above mitigation measure, in addition to implementation of General Plan Policy 3.4, Policy 3.5, Policy 3.7, Policy 3.9, and Policy 3.10, will reduce impacts to less than significant levels.

XIV. POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐

Setting. As discussed in the City's General Plan Update 2035, the City of Selma had grown to a population of 23,286 according to the California Department of Finance (DOF). In 1980, the population of Selma was 10,972, by 1990 the population had increased to 14,757 and by 2000 the population had increased to 19,314. Population growth from 1990 to 2000 represented an increase of 31.8% and the General Plan estimated that there would be 983,478 persons in Fresno County by 2010.

Based on the City of Selma's historical population growth, the General Plan Update assumed a 4% growth rate for the City, which would result in a population of 23,621 by 2010 and a potential population of 35,870 by 2020. However, as of 2023, with a population of 24,565, the City of Selma is currently declining at a rate of -0.12% annually and its population has decreased by -0.37% since the most recent census, which recorded a population of 24,655 in 2020.

The Fresno Council of Governments (FCOG) allocates housing production goals for the County and incorporated cities based on their "fair share" of the region's population and employment, which is outlined in the FCOG Sixth Cycle Regional Housing Needs Plan 2022 (RHNP). Of the 58,298 housing units allocated to FCOG, the City of Selma will need to accommodate 1,492 units over the 8-year planning period. This includes accommodating 393 very low-income, 165 low-income, 233 moderate-income, and 701 above moderate-income housing units.

Addressing a general deficit in affordable residential units citywide can be accommodated through higher density development. As required by State law (AB 1233), these units will be addressed by implementing Housing Element programs to allow for higher density residential development.

The current zone of the subject property is R-1-7, which allows for 3 to 5.5 units per acre. The proposed project includes a request to change the zone from R-1-7 to R-3 (Medium High Density, 8 to 14 units per acre) on approximately 9 acres, C-3 (Regional Commercial) on 6 acres and OS (Open Space) on 1 acre. It is important to note that, according to Table 1-1 (Land Use and Zoning

Consistency) of the General Plan Update Land Use Element, the R-3 zone would also be consistent with Medium High Density development of up to 14 units per acres. As such, the proposed zone change would modify the maximum allowable residential density from a maximum of 5.5 dwelling units/acre to up to 14 dwelling units/acre. The increased residential density is considered to be consistent with the City's goals to meet the FCOG RHNP and will help the City meet the housing needs identified under the RHNA.

In addition, with respect to the proposed C-3 zoning, the City's Land Use Element Policy 1.41 specifies that when the amount of available land is less than required for three years of average growth, the City shall initiate applications such as zoning and general plan amendments (excluding annexation) to ensure that at least a three-year supply of commercial lands are available for development. The proposed commercial zoning would be consistent with the City's policies for the provision of commercial zoning.

Impact.

(a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The City's 2023 population with implementation of the proposed project, is estimated to be below that forecasted in the 2035 General Plan. The project would facilitate consistency between zoning and General Plan land use designations for the site, and the project would be within the growth assumptions contained in the General Plan. These changes in density are required by the State of California Housing Element laws, to enable the development of new housing to meet population needs.

The project commercial component is anticipated to utilize a local workforce and would not be expected to encourage population growth in the area. Buildout of the project site would provide increased housing availability, which would provide adequate housing to serve expected growth through 2035. Therefore, while the project would result in some population growth, such growth would not be unplanned. Impacts to population growth and housing would be *less than significant*.

(b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

While the project would result in some population growth, such growth would not be unplanned. As the site is currently vacant, the project would not result in displacement of existing housing units. Impacts to population growth and housing would be *less than significant.*

Mitigation/Conclusion. No significant population and housing impacts are anticipated, and no mitigation measures are necessary.

XV. PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

Setting. Fire protection services are provided by the Selma Fire Department (SFD). SFD provides fire protection services, hazardous materials response, emergency medical services, including first response and transportation, and technical rescue to a six-square-mile area including all areas within the City limits. SFD also reviews development projects and building permit applications for compliance with CBC requirements and other regulations intended to prevent or reduce fire hazards. The project site is within the existing service area of the SFD and is approximately 1.7 mises west of the nearest fire station, located at 1927 West Front Street. The Selma Fire Department has two fire stations, staffed 24 hours a day. Station 53 is 3,410 square feet in size and is located at 1927 West Front Street. This station is staffed with a minimum of three personnel every day. Two personnel are assigned to one of the department's ambulances and the third person is assigned to either a fire pumper or the department's 75-foot ladder truck. It is not uncommon for one person to respond in a fire apparatus from this station. This station has three apparatus assigned to it: one emergency ambulance, one 1,250 gallon per minute pumper and one 75-foot ladder truck.

Police protection in Selma is provided by the City of Selma Police Department (SPD) headquartered at 1935 East Front Street. Areas outside the City limits are served by the Fresno County Sheriff's Department. The City of Selma Police Department consists of 54 personnel: 37 sworn officers and 17 non-sworn support staff. A Fresno County Sheriff's Department, Selma sub-station Area 3, is located at 1055 S. Golden State Boulevard.

The project site is served by the Selma Unified School District (SUSD). The Selma Unified School District (SUSD) serves Selma and the surrounding area population from grades K–12. The District includes eight elementary schools, one middle school, one high school and an independent study program. The School District office is located at 3036 Thompson Avenue in Selma.

The City of Selma currently has six designated park sites totaling approximately 43 acres, including Ringo Park which borders the project site to the east. Kings River Access Park, Lanton-Kingston Park and Kearney Park are the closest regional County parks to Selma and encompass approximately 255 acres of parkland. Several other County parks and campsites are located along and near the Kings River in Fresno County below Pine Flat Dam approximately 25 miles northeast of Selma.

Impact.

(a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

Fire protection?
The project would be required to comply with all fire safety rules and regulations including the California Fire Code and Public Resources Code prior to issuance of building permits. The City would require development impact fees for new housing and other development to ensure the SFD can maintain existing service ratios. With the continued implementation of existing practices of the City, including required compliance with the CBC, and payment of new development fees as identified by Mitigation Measure #3.13.3.1a of the Selma General Plan 2035 Update EIR, the project would not significantly affect community fire protection services or response times. Impacts would be *less than significant*.

Police Protection?
The project would rezone and amend the existing land use designation to allow greater residential density. This increased density could result in the need for police station improvements or expansions. The General Plan 2035 Update EIR included Mitigation Measure #3.13.3.2a, to modify 2035 General Plan Policy 1.97 such that the City will consider the appropriateness of development based upon infrastructure and public services availability, such as law enforcement. Mitigation Measure #3.13.2b also requires the City to study whether current development fees are adequate to offset additional public service costs of development and identify appropriate development impact fees for the future.

The project would be within the growth projections anticipated by the General Plan EIR and would allow for housing to accommodate this increase population. In addition, the project site is within the existing service area of the SPD and is one mile west of the SPD headquarters. The City would require development impact fees for new housing and other development to ensure the SPD can maintain existing service ratios. With adherence to 2035 General Plan Policy 1.97 and payment of new development fees as identified by the General Plan 2035

Update EIR, the project would not significantly affect community police protection services or response times. Impacts would be *less than significant*.

Schools?
The project site is served by the Selma Unified School District. Development allowed by the project would involve up to 144 new residential units. SUSD assesses school facilities needs based on a student generation rate of 0.825 student for each new residential unit built (SUSD 2017). Assuming a conservative student generation rate of one student per residential unit, the proposed project would generate up to 144 additional students at SUSD schools. Pursuant to SB 50 (Section 65995(h)), payment of mandatory fees to the affected school district would reduce potential school impacts to less than significant level under CEQA. The proposed housing development would be subject to the SUSD Impact Fees, which are assessed based on proposed land use and floor area. Therefore, the project would have a *less than significant impact* with respect to schools.

Parks?
As described in Section XIV, Population and Housing, the proposed project would be within the growth projections anticipated by the General Plan 2035 Update EIR (35,870 persons in 2020). As described in the General Plan EIR, future residential developers would continue to be required to meet parkland requirements, including payment of in-lieu park fees. Although the project would rezone and amend the existing land use designation to allow greater residential density, the project applicant would be required to pay park fees prior to development of the site. As such, the project would not result in an increased use of recreational facilities that would induce physical deterioration or require construction with a potential adverse effect on the environment. Impacts would be *less than significant*.

Other public facilities?
As described in above, impacts related to expanded or altered government facilities, including fire, police, school, and park facilities, would be less than significant. Other government facilities include library services, which are provided by the Fresno County Public Library, Selma Branch located at 2200 Selma Street. As described in Section XIV, Population and Housing, development allowed by the project would introduce 144 new multi-family residential units to the City. This level of population growth would not be substantial in relation to the City's overall population and assumed growth under the 2035 General Plan and would thus not require construction of new library facilities. This impact would be *less than significant.*

Mitigation/Conclusion. With the required implementation of General Plan Update EIR Mitigation Measure #3.13.3.1a, 3.13.3.2a, and 3.13.2b, impacts are considered less than significant; no mitigation is required.

XVI. RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

Setting. The City of Selma General Plan Recreation Element establishes goals, policies, and implementation measures for the management, renovation, and expansion of existing, and the development of new, parks and recreation facilities in order to meet existing and projected needs and to assure an equitable distribution of parks throughout the city.

As discussed in the General Plan 2035 Update EIR, the City of Selma currently has 6 designated park sites totaling approximately 43 acres. Selma's parks include neighborhood parks, community parks, and a community center. These facilities are listed below:

- Berry Park is a 1.1-acre neighborhood and community park at the corner of Whitson and Second Street with a playground, picnic tables, open grass areas, restrooms, and the City Skate Park.
- Brentlinger Park is a 10.1-acre neighborhood and community park at the corner of Rose and Orange Avenues with a playground, picnic tables, tennis courts, basketball courts, two lighted baseball diamonds, open grass areas and picnic shelters (which can be reserved one year in advance for the cost of $30 for residents and $60 for non-residents).
- Lincoln Park is a 3.5-acre neighborhood park at the corner of Rose and McCall Avenues with picnic tables, gazebo, restrooms and open grass areas.
- Peter Ringo Memorial Park is a 4.8-acre neighborhood park at the corner of Mitchell and Nebraska Avenues with a playground, picnic tables, basketball courts, soccer field, open grass areas and picnic shelters (which can be reserved one year in advance for the cost of $30 for residents and $60 for non-residents). This park is located adjacent to the eastern boundary of the project site.
- Salazar Park is a 1.7-acre neighborhood park at the corner of Sheridan Street and Valley View Street with a Community Center, playground, picnic tables, basketball courts, restrooms, and a Water Spray Park.
- Shafer Park is a 21.1-acre neighborhood and community park located at Floral and Thompson Avenues with a playground, picnic tables, basketball courts, two lighted baseball diamonds,

- sand volleyball courts, walking trails, and picnic shelters (which can be reserved one year in advance for the cost of $30 for residents and $60 for non-residents).
- Pioneer Village is a 14.4-acre historical, recreational and cultural facility located on Highland Avenue at Art Gonzales Parkway. Numerous historical buildings have been moved to this site to serve as a museum and cultural center for the Selma Community. This facility provides open space, restrooms and picnic tables.

Several other County parks and campsites are located along and near the Kings River in Fresno County below Pine Flat Dam approximately 25 miles northeast of Selma. In addition, the proposed project includes the provision of one acre of open space for the recreational use of residents.

The 1975 "Quimby Act" (California Government Code §66477) authorizes municipalities to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements in combination with their projects, or pay fees in lieu thereof. The goal of the Quimby Act is to require developers to help mitigate the impacts of new development. The City may also establish impact fees outside of the authority of the Quimby Act based on its police power, its statutory duty to mitigate environmental impacts under the State Impact Fee statutes.

Impact. #

(a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

As described in Section XIV, Population and Housing, the proposed project would be within the growth projections anticipated by the General Plan 2035 Update EIR (35,870 persons in 2020). As described in the General Plan EIR, future residential developers would continue to be required to meet parkland requirements, including payment of in-lieu park fees. Although the project would rezone and amend the existing land use designation to allow greater residential density, the project applicant would be required to pay park fees prior to development of the site. As such, the project would not result in an increased use of recreational facilities that would induce physical deterioration or require construction with a potential adverse effect on the environment. Impacts would be *less than significant.*

(b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

The project includes the proposed rezoning to allow for one acre of open space for the recreational use of residents, which would be an addition to the existing City recreational opportunities. Although the project would rezone and amend the existing land use designation to allow greater residential density, the project applicant would be required to pay park fees prior to development of the site. As such, the project would not result in an increased use of recreational facilities that would induce physical deterioration or require construction with a potential adverse effect on the environment. Impacts would be *less than significant*.

Mitigation/Conclusion. Impacts are considered less than significant, and no additional measures are required.

XVII. TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☒	☐	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☒	☐	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

Setting. In 2013, Senate Bill 743 was signed into law with the intent to "more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions" and required the Governor's Office of Planning and Research (OPR) to identify new metrics for identifying and mitigating transportation impacts within CEQA. As a result, in December 2018, the California Natural Resources Agency certified and adopted updates to the State CEQA Guidelines. The revisions included new requirements related to the implementation of Senate Bill 743 and identified vehicle miles traveled (VMT) per capita, VMT per employee, and net VMT as new metrics for transportation analysis under CEQA (as detailed in Section 15064.3 [b]). Beginning July 1, 2020, the newly adopted VMT criteria for determining significance of transportation impacts must be implemented statewide.

The Fresno Council of Governments holds several key roles in transportation planning within the county. As the Regional Transportation Planning Agency (RTPA), FCOG is responsible for conducting a comprehensive, coordinated transportation program, preparation of a Regional Transportation Plan (RTP), programming of state funds for transportation projects, and the administration and allocation of transportation development act funds required by state statutes. As the Metropolitan Planning Organization (MPO), FCOG is also responsible for all transportation planning and programming activities required under federal law. This includes development of long-range transportation plans and funding programs, and the approval of transportation projects using federal funds.

In order to provide an assessment of project traffic and vehicle miles traveled (VMT) impacts, a traffic study (Nebraska-Highland Multifamily and Retail Development Transportation Impact Study, August 14, 2023) and VMT study (Nebraska at Highland Multi-Family Residential and Commercial Development VMT Analysis, August 14, 2023. Appendix D of the Traffic Impact Study) were prepared by VRPA Technologies, Inc.

As discussed in the project Traffic Impact Study, the first step toward assessing project traffic impacts is to assess existing traffic conditions. Existing AM and PM peak hour turning movements were collected at each project intersection. Traffic counts were conducted for the peak hour periods of 7:00-9:00 AM and 4:00-6:00 PM for all key intersections in 2022.

The project Traffic Impact Study shows the intersection Level of Service (LOS) for the existing conditions. Results of the analysis show that the study intersections currently operate at LOS C or better except SR 33 and Inyo Ave during PM Peak hour that operates at LOS D.

Following the assessment of existing traffic conditions, project generated traffic is analyzed. Project traffic was distributed to the local roadway system using the trip distribution percentages shown in the report. This includes AM and PM peak hour project trips for residential development, retail development and the total AM and PM Peak hour project trips. In addition to the above, an Existing Plus Project Scenario was then analyzed to include existing traffic plus traffic generated by the project. The resulting traffic impacts are discussed below.
Impact.

(a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

New development facilitated under the project would be required to be consistent with the 2035 General Plan Circulation Element's goals and policies. Policy 2.31 of the Circulation Element includes standards for driveway access to major arterial, arterial, collector streets and local streets/minor collectors. Additionally, Policy 2.36 requires developers to mitigate traffic impacts associated with new projects to minimize the impacts to freeways, major arterials, arterials and collector streets. As such, all new residential development facilitated at the project site would be required to adhere to City standards for roadway development and mitigate potential traffic impacts through development impact fees. The project would not create conflicts with applicable plans, ordinances or policies related to the City's circulation system.

Transit, bikeway and pedestrian policies and facilities in the City have not changed since the analysis of the land use designations in the General Plan EIR. The project would not conflict with adopted policies, plans, or programs regarding alternative transportation as the proposed project does not include alterations to existing bike access, pedestrian pathways, or transit routes. In addition, the project would not involve the obstruction, removal or relocation of, or excessive additional demand for, existing transit, pedestrian, or bicycle facilities.

<u>Project Generated Traffic Impacts:</u> The General Plan 2035 Update EIR assumed buildout in accordance with the current project site land use designation and therefore evaluated maximum buildout of the project site up to 88 units (16 acres x 5.5 units per acre).
The proposed development includes 144 multi-family dwelling units (R-3 zone) on approximately 10.57 acres, two commercial developments totaling 3.79 acres (C-3 zone), and 0.95 acres for a community park (OS zone). The current zone of the property is R-1-7. The

proposed development includes a request to change the existing zone from R-1-7 to R-3 on approximately 10.57 acres, C-3 on 3.79 acres and OS on 0.95 acres.

This would result in an additional 56 units compared to what was originally evaluated at the project site. Table 8 shows the estimated trip generation at full buildout of the project site as provided in the project Traffic Impact Study.

Table 8. Project Trip Generation – Trip Distribution Calculation

Land Use (ITE Code)	Quantity (DU or 1,000 sf)	Daily Trip Ends	ADT	Weekday AM Peak Hour					Weekday PM Peak Hour				
		Rate	Volume	Rate	In:Out Split	Volume			Rate	In:Out Split	Volume		
						In	Out	Total			In	Out	Total
220-Multifamily Housing (Low Rise)	144	6.93	998	0.465	24:76	16	51	67	0.569	62:38	51	31	82
Strip Retail Plaza (822)	32.67	49.22	1,608	1,920	60:40	38	25	63	5.500	50:50	90	90	180
Subtotal Trip Generation			2,606			54	76	130			141	121	261
Internal Vehicle Trips (5%)			130			3	4	6			7	6	14
Pass By Trips/Retail Only (30%)			482			11	8	19			27	27	54
Residential Trips to be Distributed			998			16	51				51	31	
Retail Trips to be Distributed			995			24	14				56	57	

As shown in Table 8, development facilitated by the project at full buildout of the site could result in up to 2,606 daily trips including 130 morning peak hour trips and 261 peak hour trips. The primary roadways that would be affected are SR 43 and Nebraska Avenue and the intersections at Rose Avenue, Thompson Avenue, Floral Avenue and Thompson Avenue. The Traffic Impact Study concluded that that traffic volumes at the Highland Avenue/Rose Avenue, Second Street/SR 99 Northbound Ramp and Second Street/SR 99 Southbound Ramp intersections would result in *significant but mitigable impacts* related to the addition of project-generated traffic.

(b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Section 15064.3, subdivision (b) states that if existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled (VMT) qualitatively.

As discussed above, in order to address the potential for project impacts related to an increase in VMT, a VMT analysis was prepared for the proposed project. As discussed in the analysis, per the requirements of Senate Bill 743 (SB 743), VMT is the new performance measure used in CEQA transportation analysis. VMT became the required performance measure on July 1, 2020 replacing the previous performance measure which was level of service (LOS). The VMT generated by land development projects is compared to various screening criteria and significance thresholds to determine whether the level of VMT would be considered to be significant. At its November 15, 2021 City Council meeting, the City of

Selma adopted the SB 743 Regional Guidelines prepared by the Fresno Council of Governments.

The project VMT analysis was based on page 11 of the Fresno County SB 743 Implementation Regional Guidelines. The Guidelines reference a GHG emission threshold of 3,000 metric tons of carbon dioxide equivalent per year. In addition, the guidelines also reference a value of 50% of emissions that are produced by vehicles. Furthermore, the Guidelines include Table A on page 11 which relates project ADT generation to VMT generation and metric tons of carbon dioxide equivalent per year.

As discussed in the project VMT analysis, the proposed project is a mixed-use development. The Fresno COG SB 743 guidelines provide the following guidance with respect to mixed-use projects:

> "Mixed use projects may be evaluated for each component of the project independently, or the lead agency may use the predominant land use type for the analysis. The lead agency will make a determination of the predominant land use type on a case by case basis based on the project description."

In the case of the proposed project, none of the land uses is considered to be predominant over the others. The guidelines go on to say that credit (i.e. a VMT reduction) may be taken for the internal capture of project trips (i.e. trips made within the project site).

Since the preferred VMT analysis methodology is to analyze each component of the project separately, separate trip generation analyses were conducted for the residential and retail components of the project. Since the community park has no parking lot and is intended to serve the local area, the number of trips and VMT generated are both considered to be insignificant.

<u>Residential VMT Screening Analysis.</u> Fresno COG's VMT screening process recommends that land developments that generate less than 500 daily trips be screened out of requiring a VMT analysis. This threshold was based on analysis of GHG emissions which are highly correlated to VMT. The methodology used to determine Fresno COG's screening threshold was applied to the residential portion of the Proposed project to determine whether it would have a less than significant VMT impact using the methodology that Fresno COG used in developing the screening threshold.

The determination of the screening threshold for which detailed VMT analysis is not required is based on the analysis on page 11 of the Fresno County SB 743 Implementation Regional Guidelines (Fresno COG 2021). The Fresno COG screening guidelines reference a GHG emission threshold of 3,000 metric tons of carbon dioxide equivalent per year. Fresno COG then uses a generalized assumption that 50% of the GHG emissions from a land development result from vehicle emissions. This allows Fresno COG to relate the threshold of 3,000 metric tons of carbon dioxide per year to size expressed in terms of VMT generated per day and daily trip generation.

For the residential portion of the project, the GHG threshold of 3,000 metric tons of carbon dioxide per year from the Fresno COG guidance was used, but instead of using a generalized assumption that 50% of GHG emissions from a land development result from vehicle emissions, the CalEEMod air quality analysis model was used to determine VMT generation

specific to the residential portion of the project, resulting in an estimate that 1,460 metric tons of carbon dioxide would be produced by vehicle trips associated with this component of the project. In addition, it was estimated that this would account for 75% of residential GHG total residential emissions. As such, the residential portion of the project falls below the threshold of 3,000 metric tons per year, resulting in a *less than significant VMT impact for the proposed residential development.*

Retail VMT Screening Analysis. According to the Fresno County SB 743 guidelines, retail developments may be screened if they are considered local serving and less than 50,000 sq. ft. Local-serving commercial uses are not expressly defined by the Office of Planning and Research (OPR) or by the City of Selma. OPR allows local agencies to define what a local-serving commercial use is. Therefore, the commercial portion of the proposed project was analyzed under Land Use Code 822 of the ITE manual as a Strip Retail Plaza (<40k square feet). Furthermore, the project was analyzed to be a maximum of 40,000 square feet, if the proposed commercial development were to exceed the maximum threshold, then a marketing study justifying that the commercial use is local-serving must be completed. As such, the proposed retail development is expected to have a *significant but mitigable VMT impact*.

(c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

As shown in Table 7 above, development facilitated by the project at full buildout of the site could result in up to 2,606 daily trips including 130 morning peak hour trips and 261 peak hour trips. The primary roadways that would be affected are SR 43 and Nebraska Avenue and the intersections at Rose Avenue, Thompson Avenue, Floral Avenue and Thompson Avenue. The Traffic Impact Study concluded that that traffic volumes at the Highland Avenue/Rose Avenue, Second Street/SR 99 Northbound Ramp and Second Street/SR 99 Southbound Ramp intersections would result in significant impacts related to the addition of project-generated traffic. With the incorporation of the required roadway improvement mitigation measures under item (a) impacts related to roadway safety are considered less than significant.

(d) Result in inadequate emergency access?

The access for the residential portion of the site will be provided as one primary access point along Nebraska Avenue and emergency access point to Fig Street. Access for the retail portion of the site will be provided by a separate access point on Nebraska Avenue. The project would not result in road closures during short-term construction activities or long-term operations. Individual access to adjacent properties would be maintained during construction activities and throughout the project area. Project implementation would not affect long-term access through the project area and sufficient alternative access exists to accommodate regional trips. Therefore, the project would not adversely affect existing emergency access and less than significant impacts would occur.

Mitigation/Conclusion. Based on the project Traffic Impact Study, traffic and circulation impacts are considered significant but mitigable and transportation improvements would be needed to reduce impacts to less than significant levels.

T-1 **Roadway Intersection Improvements.** The analysis described in Chapters 1 through 3 indicates that roadway improvements will be required to support the implementation of the project as well as to accommodate other traffic increases expected in the study area.

The following intersections were identified as locations where improvements in the form of traffic signal installations will be required in each of the future scenarios analyzed. The applicant shall be required to implement the following improvements for each of the identified intersections in order to bring traffic impacts to less than significant levels prior to the issuance of construction permits.

1. Highland Avenue and Rose Avenue: The applicant shall install a Traffic Signal under the following scenarios:
    - Existing Plus Project Condition
    - Cumulative Opening year 2023 With Project Scenario
    - Horizon Year 2046 Without Project scenario
    - Horizon Year 2046 With Project scenario
2. Second Street and SR 99 NB Ramps: The applicant shall install a Traffic Signal under the following scenarios:
    - Cumulative Opening year 2023 With Project Scenario
    - Horizon Year 2046 Without Project scenario
    - Horizon Year 2046 With Project scenario
3. Second Street and SR 99 SB Ramps: The applicant shall install a Traffic Signal under the following scenarios:
    - Cumulative Opening year 2023 With Project Scenario
    - Horizon Year 2046 Without Project scenario
    - Horizon Year 2046 With Project scenario

T-2 **Locally Serving Commercial Use.** According to the Fresno County SB 743 guidelines, retail developments may be screened if they are local serving and less than 50,000 sq. ft. The commercial component of the Project was analyzed not to exceed 40,000 square feet. Although the retail portion of the project is less than 40,000 sq. ft., it is unclear if the project is considered to be locally serving. However, the City of Selma does not specifically define locally serving use. In order for the proposed project retail development to be screened out of a VMT analysis and reduce impacts to a less than significant level, commercial development must be less than 40,000 square feet, if not, then the applicant shall submit a market study or economic impact analysis that provides evidence that the commercial use will be considered locally serving. The study shall be submitted to the City Planning Department for review and approval prior to the submittal of a development proposal for the commercial portion of the proposed development.

XVIII. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☒	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Setting. Approved in 2014, AB 52 added tribal cultural resources to the categories of resources that must be evaluated under CEQA. Tribal cultural resources are defined as either of the following:

1) Sites, features, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
    a. Included or determined to be eligible for inclusion in the California Register of Historical Resources; or
    b. Included in a local register of historical resources as defined in subdivision (k) of California Public Resources Code Section 5020.1.
2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of California Public Resources Code Section 5024.1. In applying these criteria for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American Tribe.

Recognizing that tribes have expertise with regard to their tribal history and practices, AB 52 requires lead agencies to provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if they have requested notice of projects proposed within that area.

As discussed under Section V, Cultural Resources, under the Selma General Plan Update 2035 EIR development facilitated by the 2035 General Plan Update could result in adverse effects to identified and previously unidentified archaeological resources and/or human remains. Although the project would rezone and amend the land use designation to allow for higher density residential uses, it would not change the planned residential use as evaluated in the General Plan EIR. The project does not include new physical disturbance beyond the uses included in the 2035 General Plan and evaluated in the General Plan EIR. The proposed project would be required to implement General Plan EIR Mitigation Measures 3.5.3.1a and 3.5.3.1b to reduce impacts in the event cultural resources or human remains are discovered.

The project site does not contain any historic resources or structures.

Tribal Coordination - AB52 and SB18

Under the requirements of Assembly Bill 52 (AB52), Native American outreach was initiated as part of the project coordination and research effort. In addition, as required under Senate Bill (SB) 18, any City or County proposing a General Plan amendment or Specific Plan must contact appropriate Native American tribal representatives for the purpose of entering into meaningful consultation between the tribes and the Lead Agency. In order to complete the required SB 18 and AB 52 process, the City of Selma contacted the Native American Heritage Commission and local Native American groups known to have knowledge of or ties to the project area via letters sent through certified mail June 8 2022. The City did not receive any requests for consultation.

Impact.

(a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

(a-i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

The County has provided notice of the opportunity to consult with appropriate tribes per the requirements of AB 52 and SB 18 and no requests for consultation were received. Under the Selma General Plan Update 2035 EIR development facilitated by the 2035 General Plan Update could result in adverse effects to identified and previously unidentified archaeological resources and/or human remains. Although the project would rezone and amend the land use designation to allow for higher-density residential uses, it would not change the planned residential use as evaluated in the General Plan EIR. The project does not include new physical disturbance beyond the uses included in the 2035 General Plan and evaluated in the General

Plan EIR. The proposed project would be required to implement General Plan EIR Mitigation Measures 3.5.3.1a and 3.5.3.1b to reduce impacts in the event cultural resources or human remains are discovered. Therefore, impacts related to a substantial adverse change in the significance of tribal cultural resources would be *less than significant*.

(a-ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

The project site does not contain any resources determined to be a potentially significant tribal cultural resource. Impacts associated with potential inadvertent discovery would be minimized through compliance with existing standards and regulations. Therefore, potential impacts would be *less than significant*.

Mitigation/Conclusion. Impacts are considered less than significant and mitigation measures are not required beyond the requirements of the Selma General Plan 2035 Update.

XIX. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Setting. The project would increase residential density at the site and therefore may result in a slight increase in the use of water, wastewater, storm water, electric power, natural gas, and telecommunications facilities. As described in Section XIV, Population and Housing, the City's 2023 population with implementation of the project, would be below that forecasted in the 2035 General Plan. As such the project would be within the growth projections for buildout of the 2035 General Plan and would be consistent with the findings for utility facilities demand through the year 2035. The General Plan EIR states that existing wastewater facilities would require expansion to serve the projected 2035 population. Policies in the 2035 General Plan require new developments to demonstrate there is adequate sewer capacity, and the City of Selma collects development impact fees, which are used to fund construction of required facilities expansions.

The 2020 Urban Water Management Plan (UWMP) developed for the Selma District of the California Water Service Company projects that water demand in 2025 will be between 4,434-acre feet per year (AFY) in a normal supply year and 4,584 AFY in a single dry year, with demand in multiple dry years

falling between these totals. The 2020 UWMP projects that, by 2030, demand will decrease to 4,397 AFY in a normal supply year and 4,547 AFY in a single dry year, with demand in multiple dry years again falling between these totals. This means that the projected decrease in demand between 2025 and 2030 ranges between 37 AFY in a normal supply year and in a single dry year. The 2020 UWMP finds that sufficient water supplies are available to meet projected demand during normal, dry, and multiple dry years not through 2045. Because the project would not substantially increase the total amount of development at buildout compared to the 2035 General Plan, it would not significantly increase water demand.

The 2035 General Plan Initial Study indicated solid waste generated by the 2035 General Plan would be transported to the American Avenue Landfill, which has available capacity through 2031. Impacts to solid waste to the City were less than significant according to the General Plan Initial Study. The City of Selma has been reducing its solid waste generation rates in compliance with AB 939. Buildout facilitated under the project would increase the total solid waste generation of residences within the city; however, Selma is committed to continuing to increase recycling and diversion rates. The proposed project increase of residential uses and addition of commercial use would be within the growth projections for buildout of the 2035 General Plan. As such, the project would not generate solid waste in excess of local infrastructure capacities such that it would impair the attainment of solid waste reduction goals. Additionally, the project would comply with all federal, state, and local management and reduction statutes and regulations related to solid waste.

Because the project would be within the projected buildout of the 2035 General Plan, it would be accounted for under the findings in the General Plan EIR regarding utilities and service systems. Although the density on the project site would potentially be greater with the proposed rezone and General Plan amendment, with implementation of applicable policies and mitigation measures, the additional potential buildout would not result in new or more severe impacts on utilities than those evaluated in the General Plan EIR. As such, the project would not require new or expanded water, wastewater, storm water, electric power, natural gas, or telecommunications facilities and impacts would be less than significant.

Impact. #

(a) *Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electrical power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?*

Because the project would be within the projected buildout of the 2035 General Plan, it would be accounted for under the findings in the General Plan EIR regarding utilities and service systems. Although the density on the project site would potentially be greater with the proposed rezone and General Plan amendment, with implementation of applicable policies and mitigation measures, the additional potential buildout would not result in new or more severe impacts on utilities than those evaluated in the General Plan EIR. As such, the project would not require new or expanded water, wastewater, storm water, electric power, natural gas, or telecommunications facilities and impacts would be *less than significant*.

(b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

The City of Selma is a Groundwater Sustainability Agency (GSA) under the SGMA. As required under the SGMA the City has drafted a Groundwater Sustainability Plan (GSP), discussed in detail under the Water Supply Assessment prepared for the General Plan Update EIR. The policies and goals of the General Plan are summarized under Section X, Hydrology and Water Quality. As discussed above, the 2020 UWMP finds that sufficient water supplies are available to meet projected demand during normal, dry, and multiple dry years not through 2045. Because the project would not substantially increase the total amount of development at buildout compared to the 2035 General Plan, it would not significantly increase water demand. Potential impacts associated with water supplies would be *less than significant.*

(c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The General Plan EIR states that existing wastewater facilities would require expansion to serve the projected 2035 population. Policies in the 2035 General Plan require new developments to demonstrate there is adequate sewer capacity, and the City of Selma collects development impact fees, which are used to fund construction of required facilities expansions. Based on compliance with existing regulations and requirements, potential impacts would be *less than significant*.

(d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

The proposed project increase of residential uses and addition of commercial use would be within the growth projections for buildout of the 2035 General Plan. The American Avenue Landfill utilized by the City of Selma is projected to have available capacity through 2031. As such, the project would not generate solid waste in excess of local infrastructure capacities such that it would impair the attainment of solid waste reduction goals. Additionally, the project would comply with all federal, state, and local management and reduction statutes and regulations related to solid waste. Therefore, impacts would be *less than significant*.

(e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The project would not result in a substantial increase in waste generation during project construction or operation. Construction waste disposal would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. The City of Selma has been reducing its solid waste generation rates in compliance with AB 939. Buildout facilitated under the project would increase the total solid waste generation of residences within the city; however, Selma is committed to continuing to increase recycling and diversion rates. Therefore, potential impacts would be *less than significant*.

Mitigation/Conclusion. With the payment of development impact fees, additional mitigation measures are not required. Impacts are considered less than significant.

XX. WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Setting. In central California, the fire season usually extends from roughly May through October, however, recent events indicate that wildfire behavior, frequency, and duration of the fire season are changing in California. Fire Hazard Severity Zones (FHSZ) are defined by the California Department of Forestry and Fire Protection (CALFIRE) based on the presence of fire-prone vegetation, climate, topography, assets at risk (e.g., high population centers), and a fire protection agency's ability to provide service to the area (CAL FIRE 2007). FHSZs throughout the County have been designated as "Very High," "High," or "Moderate." According to the CALFIRE Fire Hazard Severity Zones Map, Selma is not in or near state responsibility areas or lands classified as Very High Fire hazard severity zones. Selma is a primarily urbanized area and there are no wildland areas near the City.

The California Fire Code provides minimum standards for many aspects of fire prevention and suppression activities. These standards include provisions for emergency vehicle access, water supply, fire protection systems, and the use of fire-resistant building materials. All existing and future development within the City would be required to adhere to City standards and regulations prior to obtaining building permits and no additional installation or maintenance of associated infrastructure would occur without City review.

Topography influences wildland fire to such an extent that slope conditions can often become a

critical wildland fire factor. Conditions such as speed and direction of dominant wind patterns, the length and steepness of slopes, direction of exposure, and/or overall ruggedness of terrain influence the potential intensity and behavior of wildland fires and/or the rates at which they may spread (Barros et al. 2013). The project site and surrounding area is relatively level to flat and would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Impacts related to slope instability and flooding are discussed further in Section X, Hydrology and Water Quality.

As discussed in Section IX, Hazards and Hazardous Materials, the project would not impair an adopted emergency response plan or emergency evacuation plan.

Impact. #

(a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Implementation of the proposed project would not have a permanent impact on any adopted emergency response plans or emergency evacuation plans. Temporary construction activities and staging would not substantially alter existing circulation patterns or trips. Access to adjacent areas would be maintained throughout the duration of the project. There are adequate alternative routes available to accommodate any rerouted trips through the project area for the short-term construction period. Therefore, the project would not substantially impair an adopted emergency response plan or emergency evacuation plan. Potential impacts would be *less than significant*.

(b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The project site and surrounding area is fairly level to flat. Proposed uses would not significantly increase or exacerbate potential fire risks and the project does not propose any design elements that would exacerbate risks and expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire. With the implementation of the California Fire Code and City regulations and policies, potential impacts would be *less than significant*.

(c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The project would not require the installation or maintenance of utility or wildfire protection infrastructure and would not exacerbate fire risk or result in temporary or ongoing impacts to the environment as a result of the development of wildfire prevention, protection, and/or management techniques. Therefore, potential impacts would be *less than significant*.

(d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The project site and surrounding area is relatively level to flat and would not be located near a hillslope or in an area subject to downstream flooding or landslides. The project will be subject to standard City requirements for drainage, sedimentation and erosion control for construction and permanent use. Project grading will create exposed graded areas subject to increased soil erosion and down-gradient sedimentation. Adherence to required sedimentation and erosion control will adequately address these impacts. Additionally, disturbed areas will be permanently stabilized with impermeable surfaces. The project does not include any design elements that would expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, impacts would be *less than significant*.

Mitigation/Conclusions. Impacts related to wildfires are considered less than significant. No mitigation is required.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Setting. The lead agency shall find that a project may have a significant effect on the environment and thereby require an EIR to be prepared for the project where there is substantial evidence, in light of the whole record, that any of the following conditions may occur. Where prior to commencement of the environmental analysis a project proponent agrees to mitigation measures or project modifications that would avoid any significant effect on the environment or would mitigate the significant environmental effect, a lead agency need not prepare an EIR solely because without mitigation the environmental effects would have been significant (per State CEQA Guidelines § 15065).

Impact.

(a) *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

Applicable General Plan Update EIR mitigation measures and General Plan policies and goals have been referenced under individual impact issue areas above where they have the potential to reduce identified impacts to less than significant levels. In addition to these General Plan measures, policies and goals, incorporation of Mitigation Measure BIO-1 under Section IV, Biological Resources, will reduce special status species impacts to less than significant levels. Measure CR-1 under Section V, Cultural Resources, will reduce impacts related to undiscovered cultural resources. Measure GEO-1 under Section V, Geology and Soils, will reduce geologic impacts to less than significant levels. Measure HWQ-1, under Section X, Hydrology and Water Quality, will reduce stormwater runoff impacts to less than significant levels. Mitigation Measure N-1 under Section XIII, Noise, will reduce noise impacts to less than significant levels. Mitigation Measures T-1 and T-2under Section XVII, Transportation, will reduce impacts related to intersection functions and locally serving commercial uses to less than significant levels. Therefore, impacts would be *less than significant with mitigation.*

(b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

As described throughout this Initial Study, the project would be within the growth projections for buildout of the General Plan 2035 Update and as such would not result in any new or substantial impacts beyond those previously analyzed in the General Plan 2035 Update EIR. The EIR included analysis of cumulative impacts, including regional traffic growth, associated with buildout of Selma under the 2035 General Plan. The project would not result in a substantial increase to the cumulative development in the City. As a result of this evaluation, there is no substantial evidence that, after mitigation, there are cumulative effects associated with this project. Therefore, cumulatively considerable impacts are considered *less than significant*.

(c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Environmental impacts that may have an adverse effect on human beings, either directly or indirectly, are analyzed in each environmental resource section in this Initial Study. This includes the identification of applicable General Plan EIR mitigation measures and General Plan policies and goals that have the potential to reduce adverse effects. In addition, implementation of mitigation measures HWQ-1, GEO-1, N-1, T-1 and T-2 would reduce potential adverse effects on human beings to less than significant, and impacts would be *less than significant with mitigation*

For further information on CEQA or the environmental review process, please contact the City of Selma or the California Environmental Resources Evaluation System at "http://ceres.ca.gov/topic/env_law/ceqa/guidelines/" for information about CEQA

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7. MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
Biological Resources							
BIO-1 Special Status Species Pre-Construction Survey: Prior to project construction activities, follow-up focused surveys for special-status plant species and wildlife species shall be completed by a qualified biologist and submitted to the City Planning Department for review and approval. Focused surveys conducted within the project area between April and June shall be required in order to capture the blooming period of special-status plant species and allow further evaluation regarding their presence or absence within the project site. Additionally, current drought conditions likely affect blooming success of special-status plant species and they may not bloom and be as visible as in non-drought periods. Focused surveys for wildlife species identified to potentially occur within the project site as identified in the CNDDB search results shall be required to determine their presence or absence. In the event focused surveys locate special-status species, Best Management Practices (BMPs) shall be required to reduce impacts and shall be determined through coordination with USFWS and/or CDFW, depending on the species status.	Measure shall be implemented prior to construction activities.	Prior to construction	Prior to construction kick off, and upon completion of surveys.	Applicant and City of Selma.			
Cultural Resources							
CR-1 Unintended Discovery of Cultural Resources: In the event that cultural or paleontological resources are encountered during project construction, all earth-moving activity within 50 feet of the find shall cease until the applicant retains the services of a qualified archaeologist or paleontologist. The archaeologist or paleontologist shall	Measure shall be implemented during construction activities and coordination with the City	During construction	Throughout construction activities.	Applicant and City of Selma.			

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
examine the findings, assess their significance, and offer recommendations for procedures deemed appropriate to either further investigate or mitigate adverse impacts on those cultural, paleontological or archaeological resources that have been encountered (e.g., excavate the significant resource) prior to re-commencement of construction in the affected area. If human bone or bone of unknown origin is found during project construction, all work shall stop within 50 feet of the find and the County Coroner shall be contacted immediately. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission. The Native American Heritage Commission shall notify the person considered to be the most likely descendant. The most likely descendant will work with the project applicant to develop a program for the re-interment of the human remains and any associated artifacts. No additional work shall take place within the immediate vicinity of the find until the identified appropriate actions have been completed. Project personnel shall not collect or retain artifacts found at the site. Prehistoric resources may include, but would not be limited to: chert or obsidian flakes; projectile points; mortars and pestles; and dark friable soils containing shell, fragmentary bone, dietary debris, scorched rock, or human remains. Historic resources may include, but would not be limited to, stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits, including those in old wells and privies. If development and/or modification of the historic structures reported by the Center for Archeological Research at CSU,	will be required if resources are discovered.						

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
Bakersfield is proposed, a historic analysis of such modification shall be made, including consultation with the State Historic Preservation Office. Historic features or elements that are considered to be significant shall be preserved. If such preservation is not feasible, mitigation shall include: • Relocation of the structure to a location that is historically suitable; or • Recordation of feature through archival photography and donation of artifacts to the local museum.							
Geology and Soils							
GEO-1. Project Geotechnical Report Recommendations: The project Geotechnical Report conclusions and recommendations indicate that the site is suitable for the proposed development from a geotechnical engineering standpoint; however, recommendations for project design and construction are included to address potential subsurface conditions. The Geotechnical Report includes detailed recommendations for the following issues: • general conclusions, • surface drainage, • site grading, • retaining walls, • materials for fill, • seismic design criteria, • underground utilities, • exterior concrete slabs on grade, • pool shell design and decking • lateral earth pressures and frictional resistance, • temporary excavations, • interior concrete slabs on grade • plan review, construction observation and testing. • pavement design, and	Measure shall be implemented prior to issuance of building permits.	Prior to construction	Prior to construction kick off.	Applicant and City of Selma.			

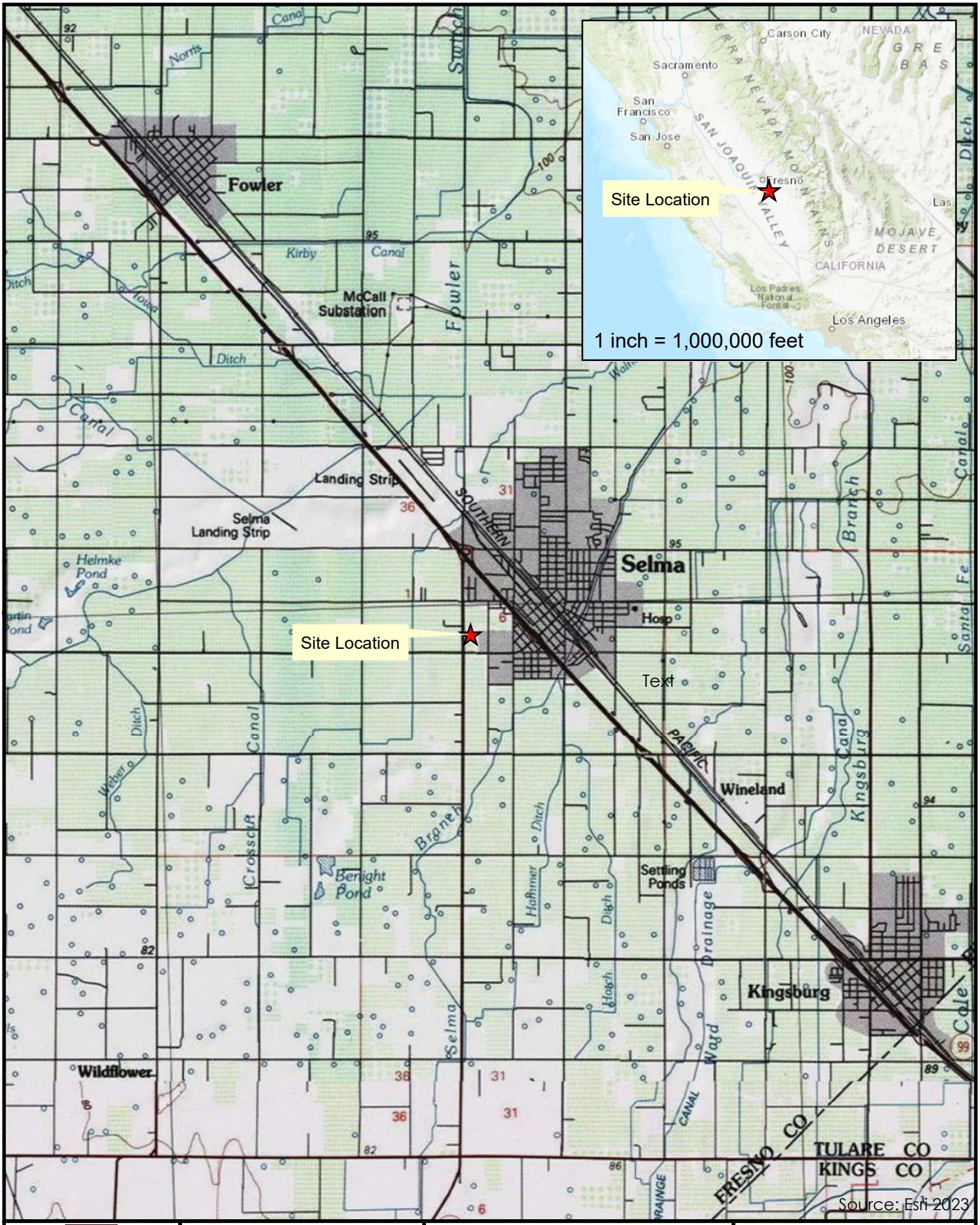
Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
• shallow foundations • soil and excavation characteristics Therefore, the applicant shall be required to implement the recommendations listed in the project Geotechnical Report as required conditions of project approval. These measures shall be listed on the building plans and implemented per the recommendations in the Geotechnical Report. Implementation of this measure will reduce impacts related to construction on the project site soils to less than significant levels.							
Hydrology and Water Quality							
HWQ-1 Storm Water Runoff. During the development review process, the project applicant shall demonstrate that all necessary infrastructure to serve the project will be installed or adequately financed. The applicant shall demonstrate that all infrastructure improvements are consistent with City infrastructure plans and applicable plans of affected agencies (i.e., CID), and all infrastructure improvements shall incorporate a range of feasible measures that can be implemented to reduce public safety and/or environmental impacts associated with the construction, operation, or maintenance of any required improvements.	Required mitigation compliance shall be demonstrated to the City Planning and Building Department	During development review process.	Once	Applicant, City of Selma			
Noise							
N-1. Construction Noise Mitigation. Stationary construction equipment used for proposed construction within the community that generates noise exceeding 65 dBA at the project boundaries shall be shielded with the most modern and effective noise control devices (i.e., mufflers, lagging,	Required mitigation measures shall be printed on building plans.	Monitoring shall be required at	Throughout construction activities.	Applicant, City of Selma			

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
and/or motor enclosures). Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction within the community shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed-air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used. All equipment shall be properly maintained to ensure that no additional noise, due to worn or improperly maintained parts, is generated. Stockpiling and vehicle staging areas shall be located as far as practical from sensitive noise receptors. Every effort shall be made to create the greatest distance between noise sources and sensitive receptors during construction activities within the community.		periodic inspections.					
Transportation							
T-1: Roadway Intersection Improvements. The analysis described in Chapters 1 through 3 indicates that roadway improvements will be required to support the implementation of the project as well as to accommodate other traffic increases expected in the study area. The following intersections were identified as locations where improvements will be required in each of the future scenarios analyzed. The applicant shall be required to work with the City to determine the appropriate improvements for each of the identified intersections in order to bring traffic impacts to less than significant levels in each of the identified scenarios prior to the issuance of construction permits. 1. Highland Avenue and Rose Avenue	Required infrastructure improvements shall be identified and prior to issuance of building permits. The City shall work with the applicant to determine a timeline for implementation of required improvements. Improvements shall be listed on the project site plans.	Prior to issuance of building permits and at completion of required improvements.	Once prior to construction permit issuance	Applicant, City of Selma			

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
• Existing Plus Project Condition • Cumulative Opening year 2023 With Project Scenario • Horizon Year 2046 Without Project scenario • Horizon Year 2046 With Project scenario 2. Second Street and SR 99 NB Ramps • Cumulative Opening year 2023 With Project Scenario • Horizon Year 2046 Without Project scenario • Horizon Year 2046 With Project scenario 3. Second Street and SR 99 SB Ramps • Cumulative Opening year 2023 With Project Scenario • Horizon Year 2046 Without Project scenario • Horizon Year 2046 With Project scenario							
T-2: Locally Serving Commercial Use. According to the Fresno County SB 743 guidelines, retail developments may be screened if they are local serving and less than 50,000 sq. ft. Although the retail portion of the project is less than 50,000 sq. ft., it is unclear if the project is considered to be locally serving. However, the City of Selma does not specifically define locally serving use. In order for the proposed project retail development to be screened out of a VMT analysis and reduce impacts to a less than significant level, the applicant shall submit a market study or economic impact analysis that provides evidence that the commercial use will be considered locally serving. The study shall be submitted to the City Planning Department for review and approval prior to the	Required market study or economic impact analysis shall be submitted to the Planning Department for review and approval.	Prior to the submittal of a development proposal for the commercial portion of the project.	Once prior to approval of a proposal for the commercial portion of the project.	Applicant, City of Selma			

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
submittal of a development proposal for the commercial portion of the proposed development.							

Attachment A:
Project Figures



OLIVEIRA ENVIRONMENTAL CONSULTING

N W E S

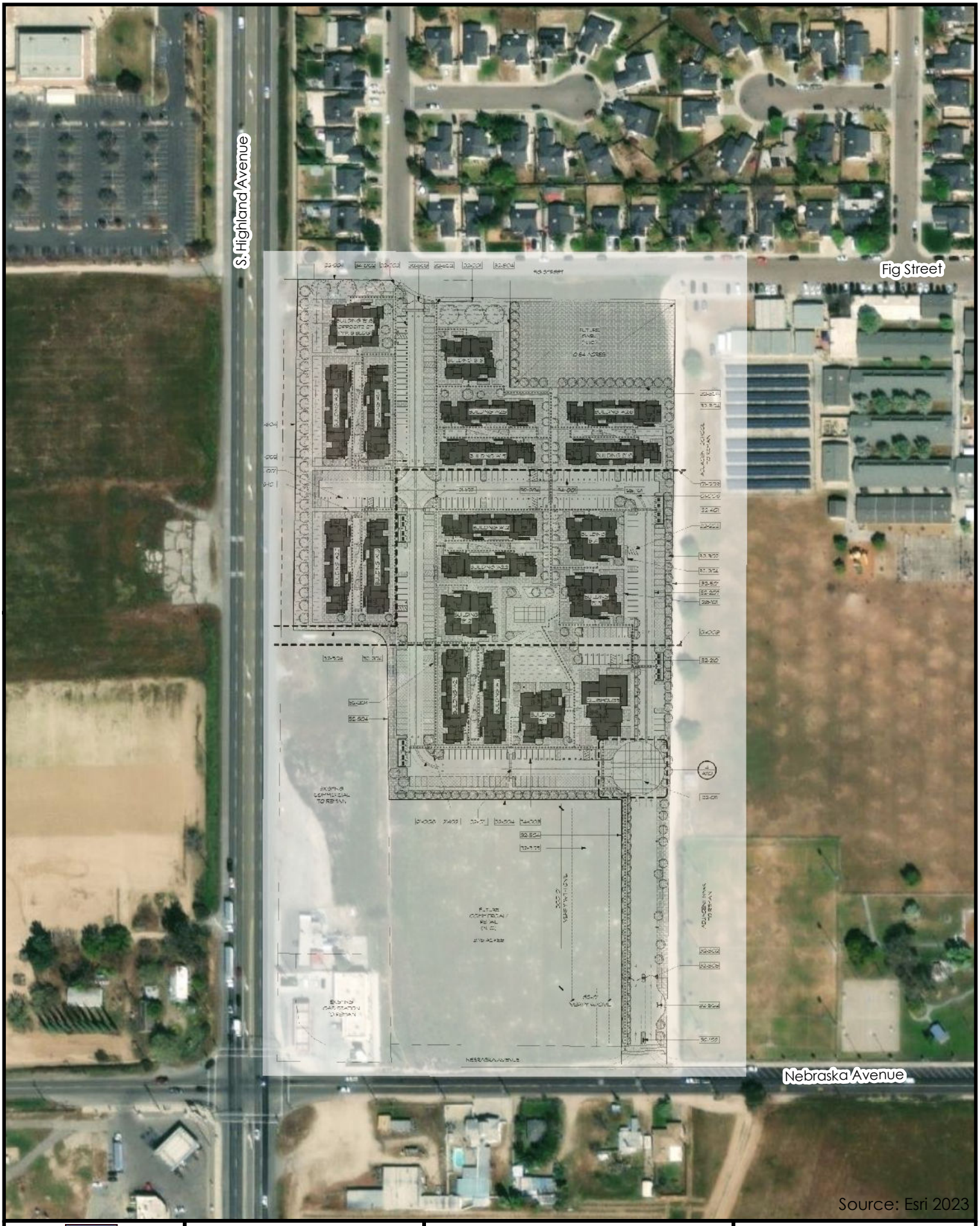
1 inch = 8,000 feet

Selma Multi-Family Residential and Commercial Project

City of Selma

Figure 1

Site Location Map



OLIVEIRA ENVIRONMENTAL CONSULTING

N W E S

1 inch = 200 feet

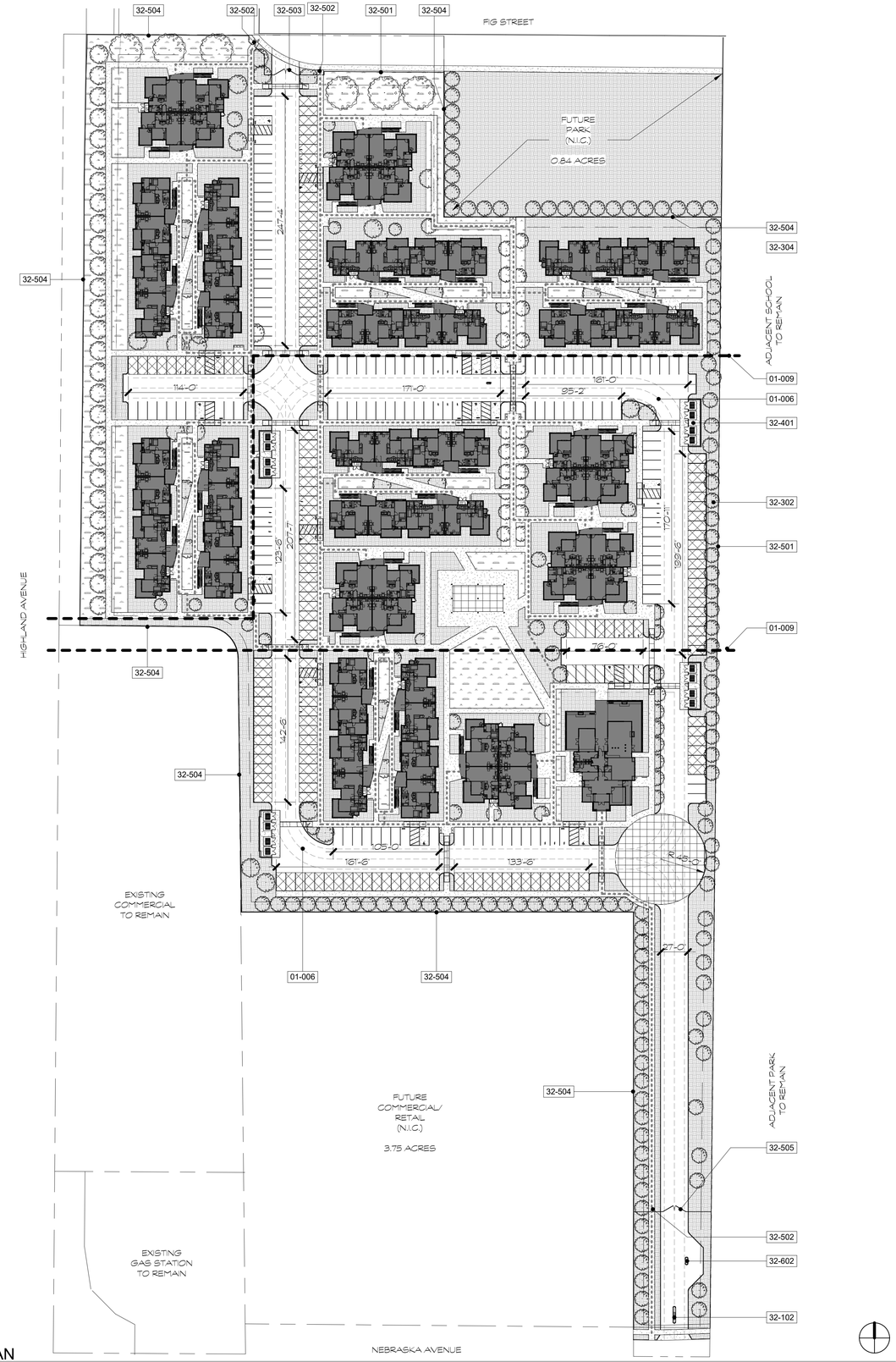
Selma Multi-Family Residential and Commercial Project

City of Selma

Figure 2

Aerial Overview Map

Attachment B:
Project Site Plans



1 OVERALL SITE PLAN
1" = 60'-0"

GENERAL NOTES

1) ITEMS SHOWN BUT NOT NOTED ARE TO BE CONSIDERED EXISTING TO REMAIN, TYP.U.N.O.

2) ALL PROPOSED EXTERIOR LIGHTING SHALL BE SHIELDED TO REDUCE OR ELIMINATE LIGHT POLLUTION IN COMPLIANCE WITH APPLICABLE CODES.

KEYNOTES

01-006	DASHED LINE INDICATES 44' CENTERLINE TURNING RADIUS FOR FIRE AND TRASH ACCESS
01-009	DASHED LINE INDICATES MATCH LINE, TYP.
32-102	MONUMENT SIGN, SEE XX/AXXX
32-302	TREE, TYP. SEE LANDSCAPE
32-401	TRASH ENCLOSURE PER CITY STANDARDS, SEE ENLARGED PLANS
32-501	7' NO-CLIMB METAL FENCE, SEE XX/AXXX
32-502	DECORATIVE METAL PEDESTRIAN GATE, 3' MIN LEAF WIDTH, SEE XX/AXXX
32-503	DECORATIVE METAL MANUAL VEHICULAR GATE FOR EMERGENCY USE ONLY, SEE XX/AXXX
32-504	6' CMU BLOCK WALL, SEE XX/AXXX
32-505	DECORATIVE METAL MOTORIZED VEHICULAR GATE, SEE XX/AXXX
32-602	CALL BOX FOR MOTORIZED VEHICULAR GATE

SITE PLAN LEGEND

- ACCESSIBLE ROUTE, MIN. 4' WIDTH
- PROPOSED BUILDING, TYP.
- GRASS, TYP. SEE LANDSCAPE
- ASPHALT PAVING, TYP. SEE CIVIL
- CONCRETE PAVING, TYP. SEE
- PLANTED AREA, TYP. SEE LANDSCAPE
- DECORATIVE PAVING, TYP. SEE
- COVERED PARKING, TYP. SEE
- VISITOR PARKING FOR CLUBHOUSE, SEE G002
- ? KEYNOTE TAG, SEE LEGEND ABOVE

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PROJECT:
JAY SINGH

SELMA MULTI-FAMILY HOUSING

HIGHLAND AVE + NEBRASKA ST, SELMA, CA 93662

SHEET: OVERALL SITE PLAN

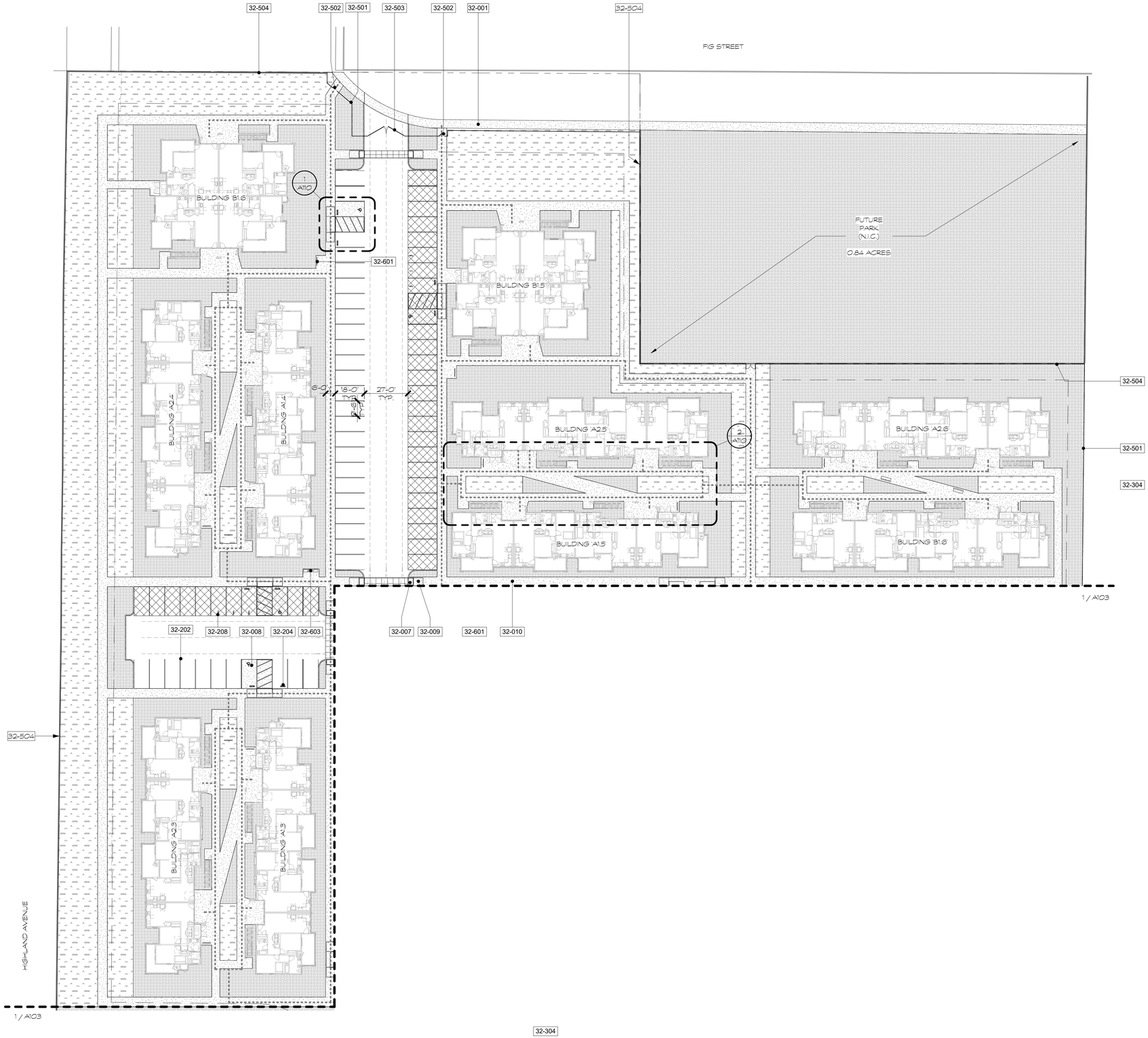
DRAWING SET INFORMATION:

10.07.22	BASE DRAWINGS

REVISIONS:

PROJECT NUMBER:
2021-60

SHEET NUMBER:
A101



1 ENLARGED SITE PLAN - NORTH
1" = 30'-0"

GENERAL NOTES

1) ITEMS SHOWN BUT NOT NOTED ARE TO BE CONSIDERED EXISTING TO REMAIN, TYP.U.N.O.

2) ALL PROPOSED EXTERIOR LIGHTING SHALL BE SHIELDED TO REDUCE OR ELIMINATE LIGHT POLLUTION IN COMPLIANCE WITH APPLICABLE CODES.

KEYNOTES

32-001	CONCRETE SIDEWALK PER CITY STANDARDS, TYP.
32-007	DETECTABLE DOME TACTILE WARNING SURFACING, SEE XX/AXXX
32-008	FLUSH TRANSITION BETWEEN CONCRETE & AC PAVING/PAVERS
32-009	CONCRETE RAMP, TYP.; SEE XX/AXXX
32-010	CONCRETE SIDEWALK, SEE XX/AXXX
32-202	PARKING STRIPING, TYP.
32-204	6" HIGH CONCRETE WHEEL STOP
32-208	LIGHTNING BOLT INDICATES LOCATION OF FUTURE EV CHARGING, SEE ELECTRICAL SITE PLAN
32-501	7' NO-CLIMB METAL FENCE, SEE XX/AXXX
32-502	DECORATIVE METAL PEDESTRIAN GATE, 3' MIN LEAF WIDTH, SEE XX/AXXX
32-503	DECORATIVE METAL MANUAL VEHICULAR GATE FOR EMERGENCY USE ONLY, SEE XX/AXXX
32-504	6' CMU BLOCK WALL, SEE XX/AXXX
32-601	RIBBON BICYCLE RACK, TYP. SEE XX/AXXX
32-603	FREESTANDING MAILBOX, TYP. TO COMPLY WITH USPS AND ADA STANDARDS

SITE PLAN LEGEND

- ACCESSIBLE ROUTE, MIN. 4' WIDTH
- PROPOSED BUILDING, TYP.
- GRASS, TYP. SEE LANDSCAPE
- ASPHALT PAVING, TYP. SEE CIVIL
- CONCRETE PAVING, TYP. SEE
- PLANTED AREA, TYP. SEE LANDSCAPE
- DECORATIVE PAVING, TYP. SEE
- COVERED PARKING, TYP. SEE
- VISITOR PARKING FOR CLUBHOUSE, SEE G002
- ? KEYNOTE TAG, SEE LEGEND ABOVE

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PROJECT:
JAY SINGH

SELMA MULTI-FAMILY HOUSING

HIGHLAND AVE + NEBRASKA ST, SELMA, CA 93662

SHEET: ENLARGED SITE PLAN - NORTH

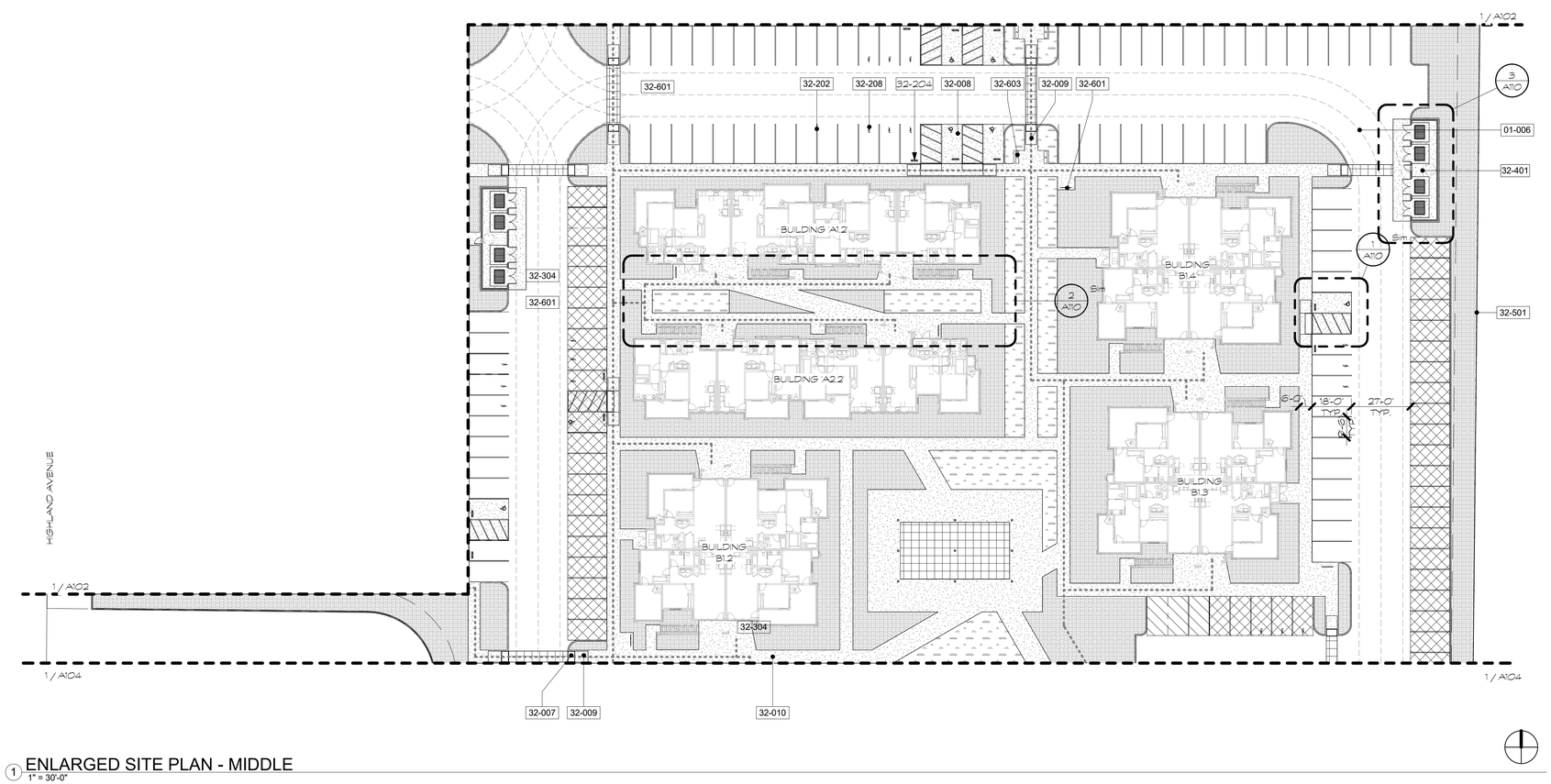
DRAWING SET INFORMATION:

10.07.22	BASE DRAWINGS

REVISIONS:

PROJECT NUMBER:
2021-60

SHEET NUMBER:
A102



1 ENLARGED SITE PLAN - MIDDLE
1" = 30'-0"

GENERAL NOTES

1) ITEMS SHOWN BUT NOT NOTED ARE TO BE CONSIDERED EXISTING TO REMAIN, TYP.U.N.O.

2) ALL PROPOSED EXTERIOR LIGHTING SHALL BE SHIELDED TO REDUCE OR ELIMINATE LIGHT POLLUTION IN COMPLIANCE WITH APPLICABLE CODES.

KEYNOTES

01-006	DASHED LINE INDICATES 44' CENTERLINE TURNING RADIUS FOR FIRE AND TRASH ACCESS
32-007	DETECTABLE DOME TACTILE WARNING SURFACING, SEE XX/AXXX
32-008	FLUSH TRANSITION BETWEEN CONCRETE & AC PAVING/PAVERS
32-009	CONCRETE RAMP, TYP.; SEE XX/AXXX
32-010	CONCRETE SIDEWALK, SEE XX/AXXX
32-202	PARKING STRIPING, TYP.
32-204	6" HIGH CONCRETE WHEEL STOP
32-208	LIGHTNING BOLT INDICATES LOCATION OF FUTURE EV CHARGING, SEE ELECTRICAL SITE PLAN
32-401	TRASH ENCLOSURE PER CITY STANDARDS, SEE ENLARGED PLANS
32-501	7 NO-CLIMB METAL FENCE, SEE XX/AXXX
32-601	RIBBON BICYCLE RACK, TYP. SEE XX/AXXX
32-603	FREESTANDING MAILBOX, TYP. TO COMPLY WITH USPS AND ADA STANDARDS

SITE PLAN LEGEND

- ACCESSIBLE ROUTE, MIN. 4' WIDTH
- PROPOSED BUILDING, TYP.
- GRASS, TYP. SEE LANDSCAPE
- ASPHALT PAVING, TYP. SEE CIVIL
- CONCRETE PAVING, TYP. SEE
- PLANTED AREA, TYP. SEE LANDSCAPE
- DECORATIVE PAVING, TYP. SEE
- COVERED PARKING, TYP. SEE
- VISITOR PARKING FOR CLUBHOUSE, SEE G002
- ? KEYNOTE TAG, SEE LEGEND ABOVE

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PROJECT:
JAY SINGH
SELMA MULTI-FAMILY HOUSING
HIGHLAND AVE + NEBRASKA ST, SELMA, CA 93662
SHEET: ENLARGED SITE PLAN - MIDDLE

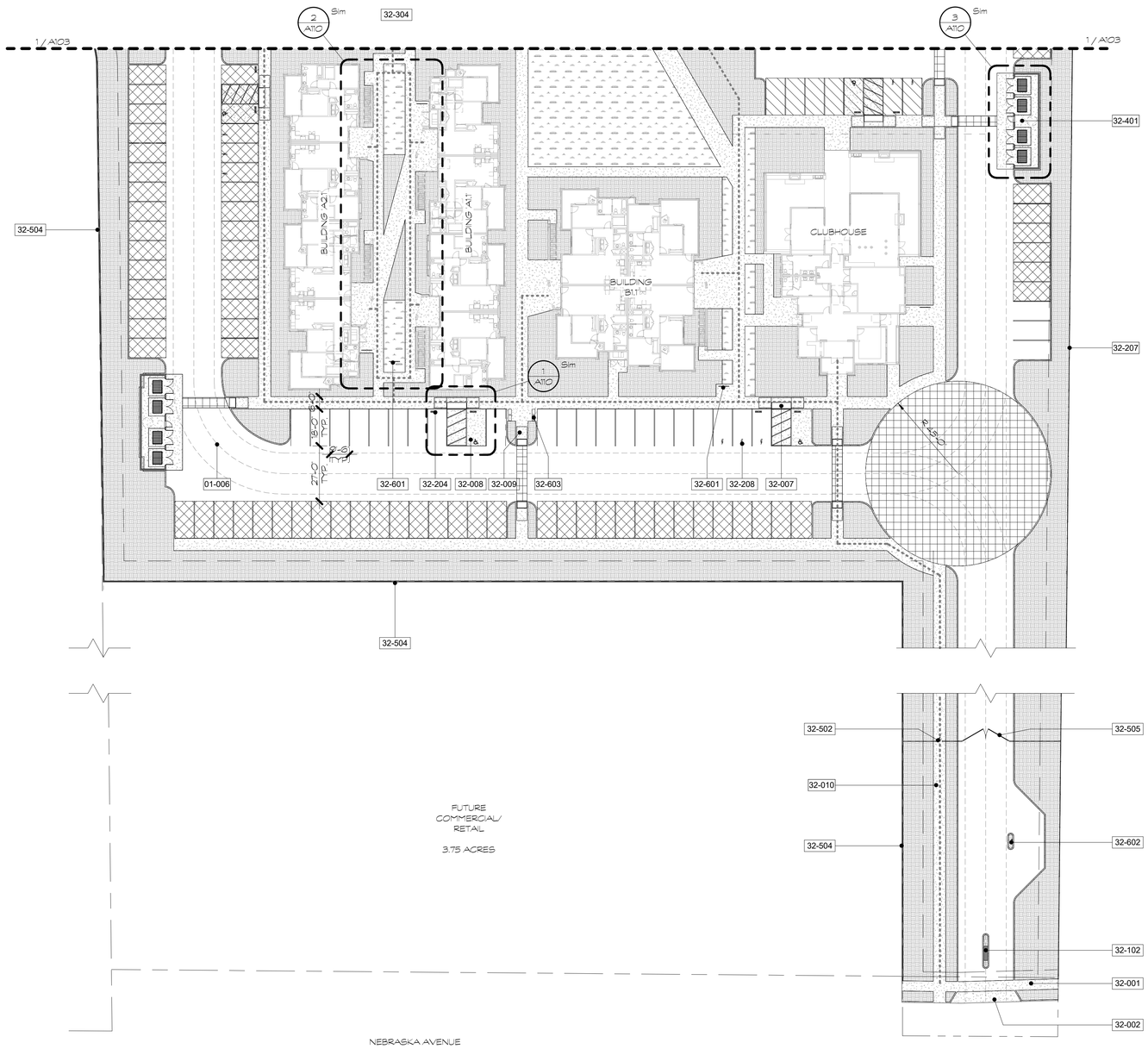
DRAWING SET INFORMATION:

10.07.22	BASE DRAWINGS

REVISIONS:

PROJECT NUMBER:
2021-60

SHEET NUMBER:
A103



1 ENLARGED SITE PLAN - SOUTH
1" = 30'-0"

GENERAL NOTES

1) ITEMS SHOWN BUT NOT NOTED ARE TO BE CONSIDERED EXISTING TO REMAIN, TYP.U.N.O.

2) ALL PROPOSED EXTERIOR LIGHTING SHALL BE SHIELDED TO REDUCE OR ELIMINATE LIGHT POLLUTION IN COMPLIANCE WITH APPLICABLE CODES.

KEYNOTES

01-006	DASHED LINE INDICATES 44' CENTERLINE TURNING RADIUS FOR FIRE AND TRASH ACCESS
32-001	CONCRETE SIDEWALK PER CITY STANDARDS, TYP.
32-002	Concrete driveway per City Standards
32-007	DETECTABLE DOME TACTILE WARNING SURFACING, SEE XX/AXXX
32-008	FLUSH TRANSITION BETWEEN CONCRETE & AC PAVING/PAVERS
32-009	CONCRETE RAMP, TYP.; SEE XX/AXXX
32-010	CONCRETE SIDEWALK, SEE XX/AXXX
32-102	MONUMENT SIGN, SEE XX/AXXX
32-204	6' HIGH CONCRETE WHEEL STOP
32-207	Covered parking, typ. See XX/AXXX
32-208	LIGHTNING BOLT INDICATES LOCATION OF FUTURE EV CHARGING, SEE ELECTRICAL SITE PLAN
32-401	TRASH ENCLOSURE PER CITY STANDARDS, SEE ENLARGED PLANS
32-502	DECORATIVE METAL PEDESTRIAN GATE, 3' MIN LEAF WIDTH, SEE XX/AXXX
32-504	6' CMU BLOCK WALL, SEE XX/AXXX
32-505	DECORATIVE METAL MOTORIZED VEHICULAR GATE, SEE XX/AXXX
32-601	RIBBON BICYCLE RACK, TYP, SEE XX/AXXX
32-602	CALL BOX FOR MOTORIZED VEHICULAR GATE
32-603	FREESTANDING MAILBOX, TYP, TO COMPLY WITH USPS AND ADA STANDARDS

SITE PLAN LEGEND

- ACCESSIBLE ROUTE, MIN. 4' WIDTH
- PROPOSED BUILDING, TYP.
- GRASS, TYP. SEE LANDSCAPE
- ASPHALT PAVING, TYP. SEE CIVIL
- CONCRETE PAVING, TYP. SEE
- PLANTED AREA, TYP. SEE LANDSCAPE
- DECORATIVE PAVING, TYP. SEE
- COVERED PARKING, TYP. SEE
- VISITOR PARKING FOR CLUBHOUSE, SEE G002
- ? KEYNOTE TAG, SEE LEGEND ABOVE

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PROJECT:
JAY SINGH

SELMA MULTI-FAMILY HOUSING

HIGHLAND AVE + NEBRASKA ST, SELMA, CA 93662

SHEET: ENLARGED SITE PLAN - SOUTH

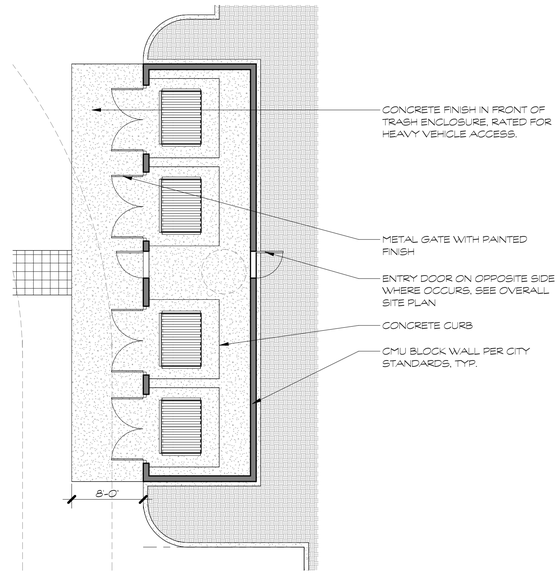
DRAWING SET INFORMATION:

10.07.22	BASE DRAWINGS

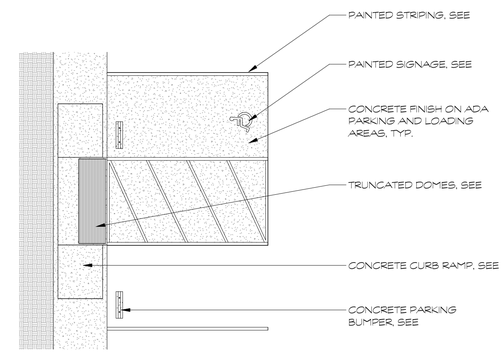
REVISIONS:

PROJECT NUMBER:
2021-60

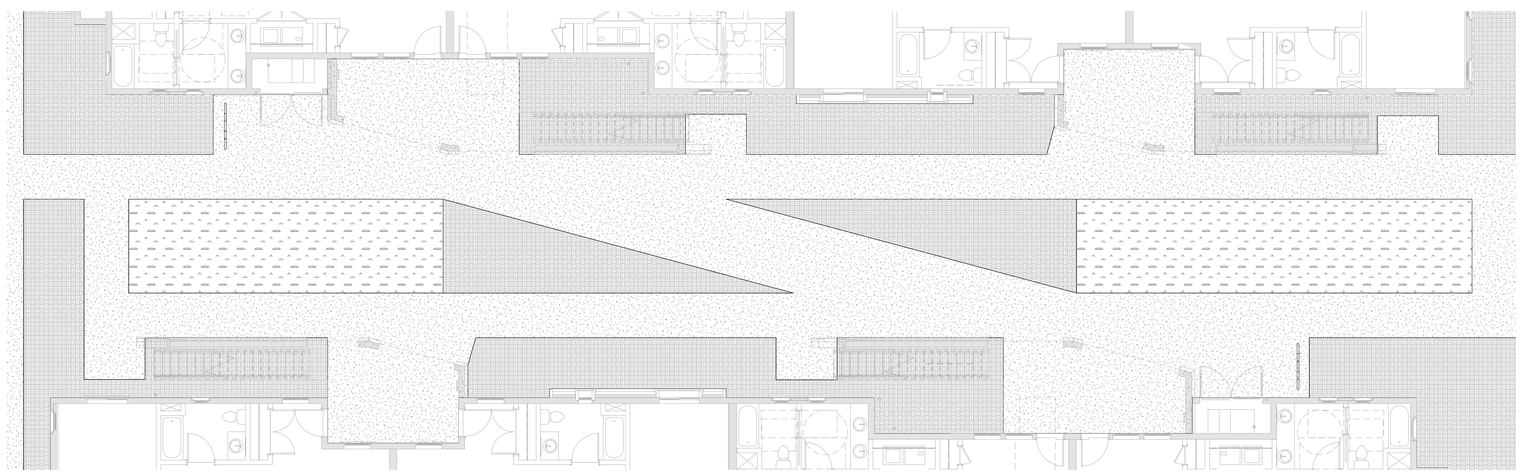
SHEET NUMBER:
A104



3 TYP TRASH ENCLOSURE
1/8" = 1'-0"



1 TYP ACCESSIBLE PARKING STALL
1/8" = 1'-0"



2 TYP BLDG A COURTYARD
1/8" = 1'-0"

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PROJECT:
JAY SINGH
SELMA MULTI-FAMILY HOUSING
HIGHLAND AVE + NEBRASKA ST, SELMA, CA 93662
SHEET: ENLARGED SITE PLANS

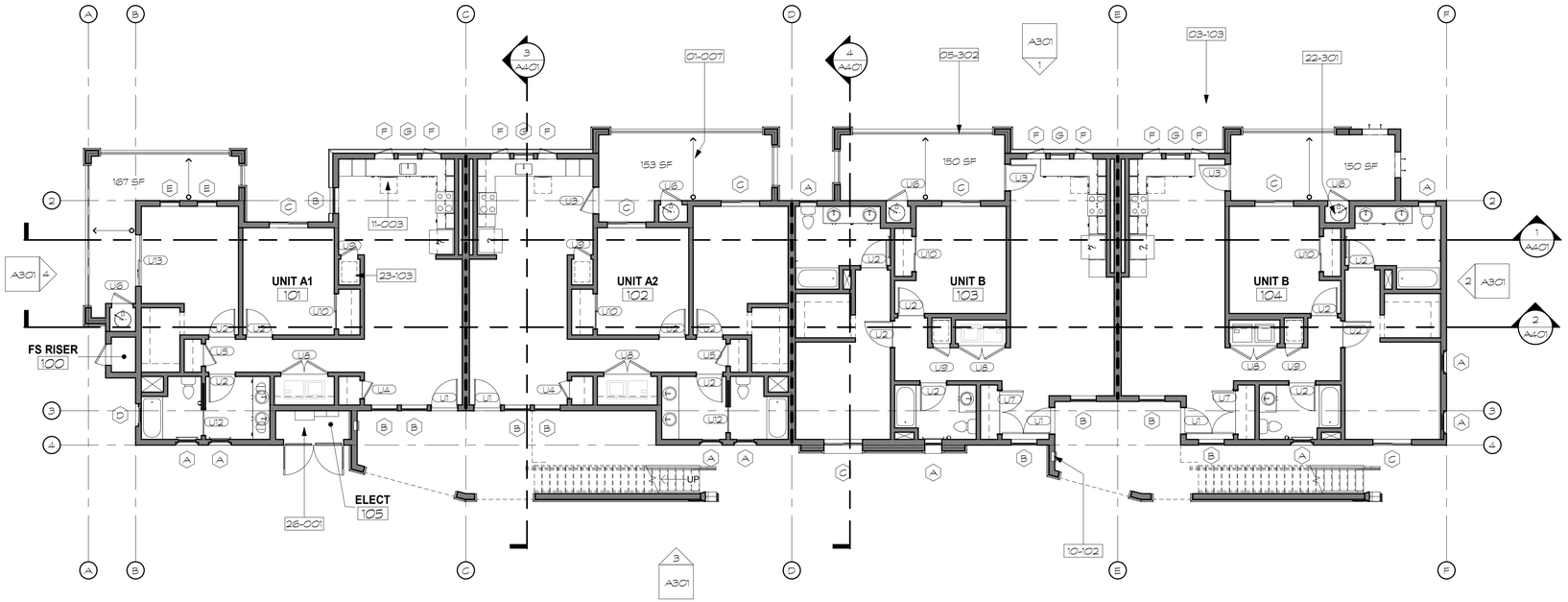
DRAWING SET INFORMATION:

10.07.22	BASE DRAWINGS

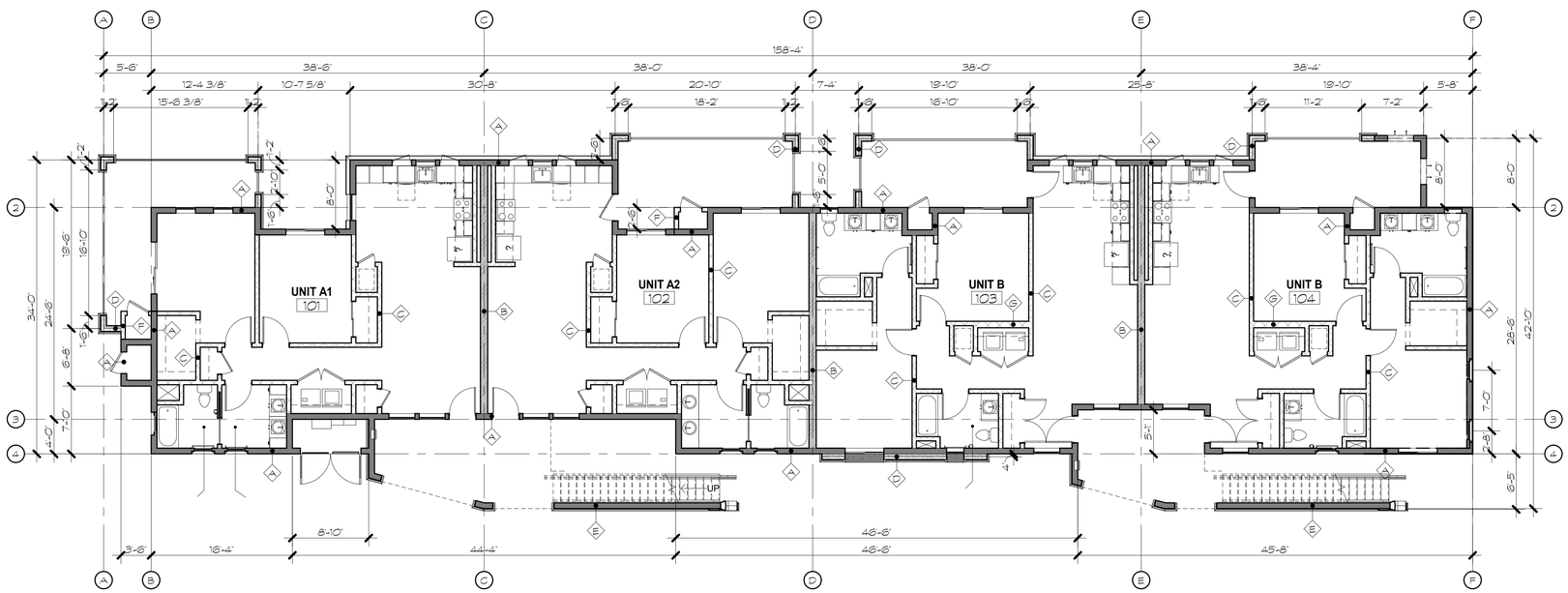
REVISIONS:

PROJECT NUMBER:
2021-60

SHEET NUMBER:
A110



2 BLDG A - FIRST FLOOR KEYNOTE PLAN
1/8" = 1'-0"



1 BLDG A - FIRST FLOOR DIM PLAN
1/8" = 1'-0"

GENERAL NOTES

1) DIMENSIONS WITH 'MIN' 'CLR' 'MIN CLR' OR 'ABSOLUTE' ARE MEASURED FROM FACE OF WALL FINISH

2) FOR TYPICAL REACH RANGES, SEE DETAIL 7 / A900

3) FOR DOOR CLEARANCES, SEE DETAILS 8 / A900 AND 12 / A900

4) ROOM NUMBERING SHOWN HERE IS NOT TO BE USED FOR ROOM SIGNAGE. CONFIRM WITH OWNER PRIOR TO FABRICATION AND INSTALLATION

5) FOR FIXTURE AND TOILET ACCESSORIES MOUNTING AND LOCATION, SEE INTERIOR ELEVATIONS AND 19 / A900

6) FOR FINISH, DOOR AND WINDOW INFORMATION, SEE A701-703

7) PROVIDE BACKING AS NEEDED FOR ALL ITEMS, SEE DETAIL 8 / A930

8) ALL NEW PARTITION WALLS SHALL BE CONTINUOUS TO UNDERSIDE OF ROOF DECK, TYP. U.N.O.

KEYNOTES

01-007	SLOPE AWAY FROM BUILDING/TOWARDS SCUPPER, SEE GENERAL NOTES ON G100
03-103	PRECAST CONCRETE MOULDING, SEE ELEVATIONS
05-302	METAL GUARDRAIL, SEE XX/AXXX
10-102	SEMI-RECESSED FIRE EXTINGUISHER CABINET, SEE 2/A932
11-003	DISHWASHER, PROVIDE POWER PER ELECTRICAL AND WATER PER PLUMBING
22-301	ELECTRIC TANK-STYLE WATER HEATER, SEE PLUMBING
23-103	ELECTRIC FURNACE, SEE MECHANICAL
26-001	MAIN SWITCHBOARD, SEE ELECTRICAL

FLOOR PLAN LEGEND

SMALL DASHED LINE INDICATES ACCESSIBLE CLEARANCE AT DOOR, FIXTURE OR EQUIPMENT, TYP. SEE AND

LARGE DASHED LINE INDICATES ELEMENT ABOVE, TYP.

1+	WINDOW TAG, SEE A703	W-1	SIGN TAG, SEE A901
1+	DOOR TAG, SEE A702	Room name 101	ROOM TAG, SEE A701
?	KEYNOTE TAG, SEE LEGEND	01 A201	SECTION
01 A201	ELEVATION	A	TOILET ACCESSORY TAG, SEE LEGEND ON A205
SC	SECURITY CAMERA, OFCI, PROVIDE POWER/DATA PER ELECTRICAL	KB	KNOX BOX PER SKF REQUIREMENTS, 48" MOUNTING HEIGHT

STAIR NOTES

1) SEE 5 / A932 FOR TYPICAL STAIR HANDRAIL CLEARANCES AND LOCATION, TYP.

2) ALL EXTERIOR STAIRS SHALL HAVE THE UPPER APPROACH AND ALL TREADS MARKED BY A STRIPE PROVIDING CLEAR VISUAL CONTRAST. THE STRIPE SHALL BE A MINIMUM OF 2" WIDE TO A MAXIMUM OF 4" WIDE PLACED PARALLEL TO, AND NOT MORE THAN 1" FROM THE NOSE OF THE STEP OR UPPER APPROACH. THE STRIPE SHALL EXTEND THE FULL WIDTH OF THE STEP OR UPPER APPROACH AND SHALL BE OF MATERIAL THAT IS AT LEAST AS SLIP RESISTANT AS THE OTHER TREADS OF THE STAIR. A PAINTED STRIPE SHALL BE ACCEPTABLE. GROOVES SHALL NOT BE USED TO SATISFY THIS REQUIREMENT. [CBC 11B-504.4.1]

3) 7" MAX RISER HEIGHT AND 11" MIN TREAD DEPTH REQUIRED AT ALL STAIRS, TYP. U.N.O. STAIR TREADS AND RISERS SHALL BE OF UNIFORM SIZE/SHAPE. THE TOLERANCE BETWEEN THE LARGEST AND SMALLEST TREAD DEPTH SHALL NOT EXCEED 0.375" (3/8") IN ANY FLIGHT OF STAIRS. [CBC 1011.5]

4) PROVIDE BACKING AND/OR BLOCKING AS NEEDED FOR HANDRAILS PER 8 / A930

WALL LEGEND

NOTE: SEE FINISH SCHEDULE ON A701 FOR MORE INFORMATION

	A	TYP. EXT. WALL	- / -	5 / A000
	B	TYP. PARTY WALL	1-HR / STC-50	6 / A000
	C	TYP. INT. WALL	- / -	7 / A000
	D	TYP. EXT. WALL W/ STONE FINISH	- / -	8 / A000
	E	TYP. EXT. WALL W/ STUCCO EA. SIDE	- / -	9 / A000
	F	TYP. WATER HEATER CLOSET	- / -	10 / A000
	G	TYP. LAUNDRY WALL	- / -	11 / A000
	H	TYP. FIRE RATED WALL	1-HR / -	12 / A000

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PROJECT:
JAY SINGH

SELMA MULTI-FAMILY HOUSING

HIGHLAND AVE + NEBRASKA ST, SELMA, CA 93662

SHEET: BLDG A - FIRST FLOOR PLANS

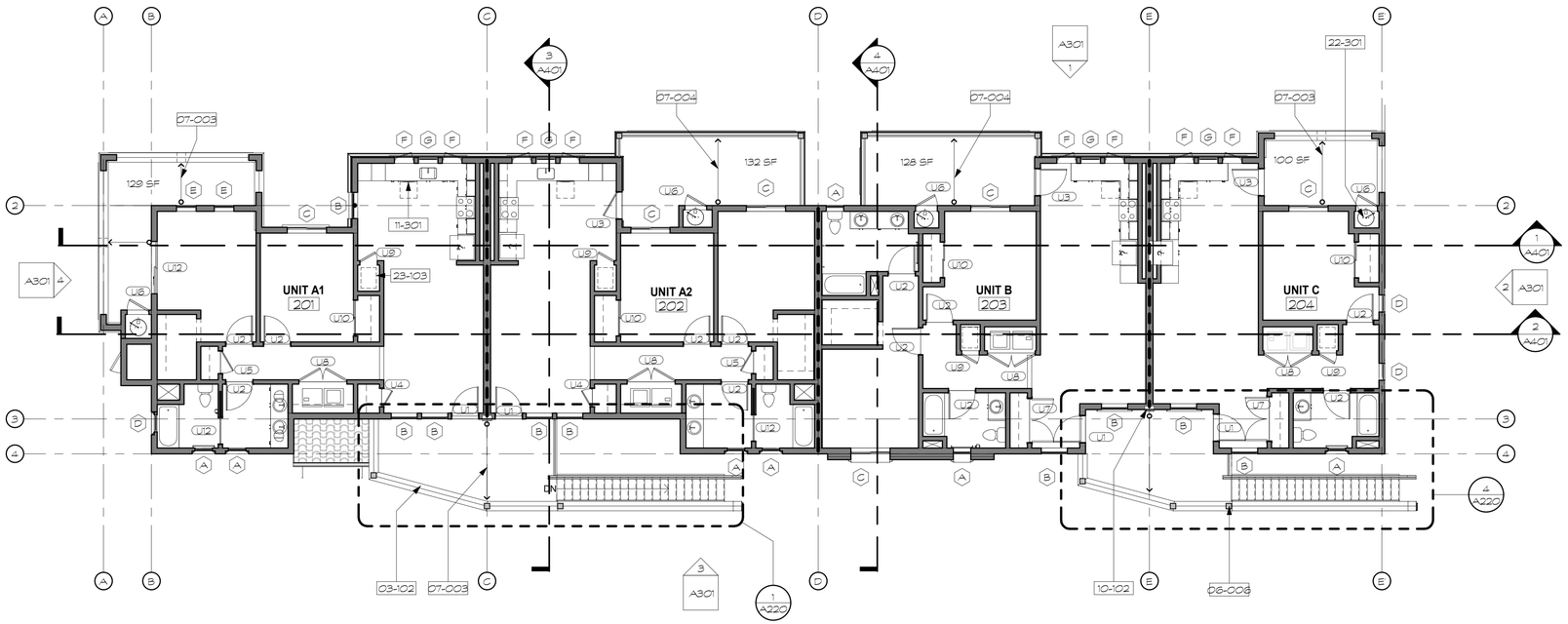
DRAWING SET INFORMATION:

10.07.22	BASE DRAWINGS

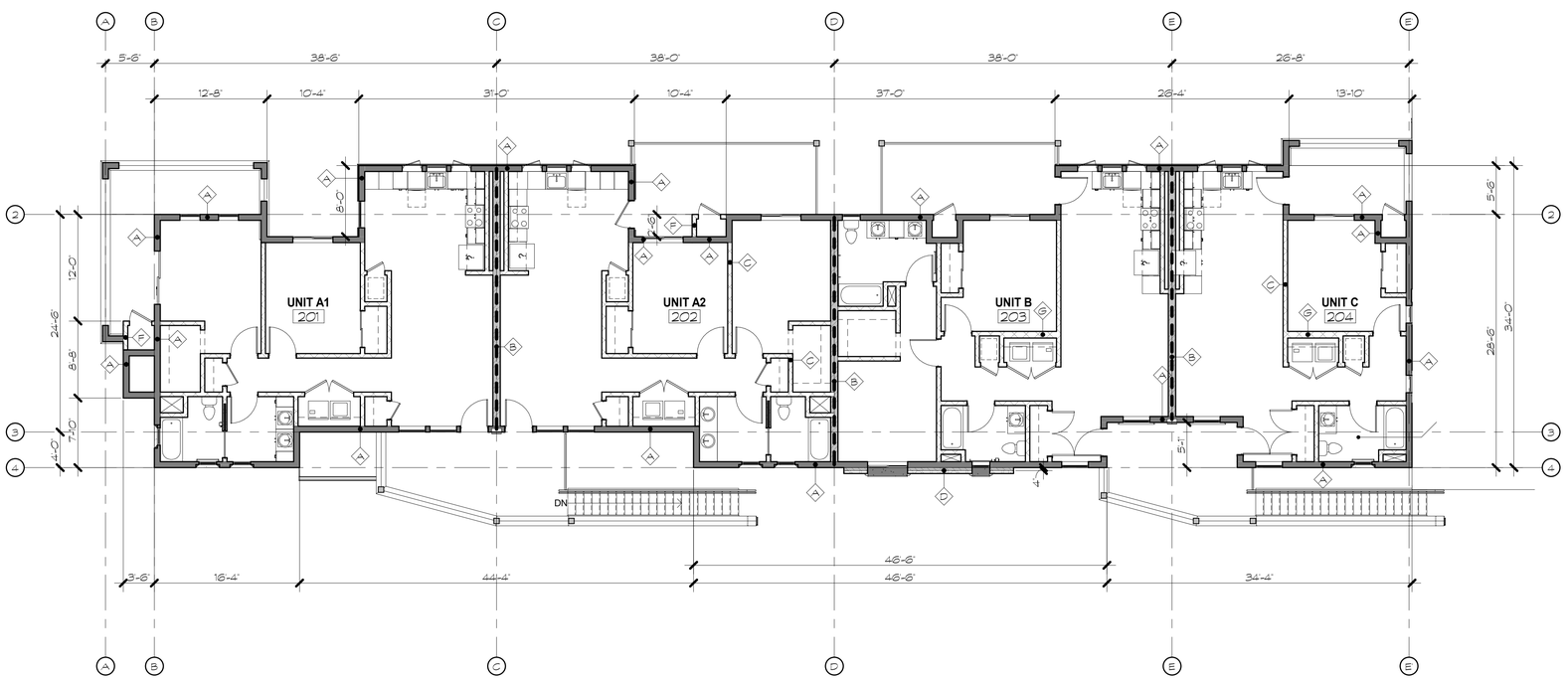
REVISIONS:

PROJECT NUMBER:
2021-60

SHEET NUMBER:
A201



2 BLDG A - SECOND FLOOR KEYNOTE PLAN
1/8" = 1'-0"



1 BLDG A - SECOND FLOOR DIM PLAN
1/8" = 1'-0"

GENERAL NOTES

1) DIMENSIONS WITH 'MIN' 'CLR' 'MIN CLR' OR 'ABSOLUTE' ARE MEASURED FROM FACE OF WALL FINISH

2) FOR TYPICAL REACH RANGES, SEE DETAIL 7 / A900

3) FOR DOOR CLEARANCES, SEE DETAILS 8 / A900 AND 12 / A900

4) ROOM NUMBERING SHOWN HERE IS NOT TO BE USED FOR ROOM SIGNAGE. CONFIRM WITH OWNER PRIOR TO FABRICATION AND INSTALLATION

5) FOR FIXTURE AND TOILET ACCESSORIES MOUNTING AND LOCATION, SEE INTERIOR ELEVATIONS AND 19 / A800

6) FOR FINISH, DOOR AND WINDOW INFORMATION, SEE A701-703

7) PROVIDE BACKING AS NEEDED FOR ALL ITEMS, SEE DETAIL 8 / A930

8) ALL NEW PARTITION WALLS SHALL BE CONTINUOUS TO UNDERSIDE OF ROOF DECK, TYP. U.N.O.

KEYNOTES

03-102	PRECAST CONCRETE CAP
06-006	WOOD COLUMN/BEAM, SEE STRUCTURAL
07-003	DRAIN BALCONY TO SCUPPER AT 1/4:12 MIN, TYP.
07-004	SHEET FLOW OFF BALCONY EDGE, TYP.
10-102	SEMI-RECESSED FIRE EXTINGUISHER CABINET, SEE 2/A932
11-301	WASHER, PROVIDE POWER PER ELECTRICAL AND WATER PER PLUMBING
22-301	ELECTRIC TANK-STYLE WATER HEATER, SEE PLUMBING
23-103	ELECTRIC FURNACE, SEE MECHANICAL

FLOOR PLAN LEGEND

SMALL DASHED LINE INDICATES ACCESSIBLE CLEARANCE AT DOOR, FIXTURE OR EQUIPMENT, TYP. SEE AND

LARGE DASHED LINE INDICATES ELEMENT ABOVE, TYP.

WINDOW TAG, SEE A703

W-1 SIGN TAG, SEE A901

DOOR TAG, SEE A702

Room name 101 ROOM TAG, SEE A701

? KEYNOTE TAG, SEE LEGEND

01 A201 SECTION

01 A201 ELEVATION

A TOILET ACCESSORY TAG, SEE LEGEND ON A205

SC SECURITY CAMERA, OFCI, PROVIDE POWER/DATA PER ELECTRICAL

KB KNOX BOX PER SKF REQUIREMENTS, 48" MOUNTING HEIGHT

STAIR NOTES

1) SEE 5 / A932 FOR TYPICAL STAIR HANDRAIL CLEARANCES AND LOCATION, TYP.

2) ALL EXTERIOR STAIRS SHALL HAVE THE UPPER APPROACH AND ALL TREADS MARKED BY A STRIPE PROVIDING CLEAR VISUAL CONTRAST. THE STRIPE SHALL BE A MINIMUM OF 2" WIDE TO A MAXIMUM OF 4" WIDE PLACED PARALLEL TO, AND NOT MORE THAN 1" FROM THE NOSE OF THE STEP OR UPPER APPROACH. THE STRIPE SHALL EXTEND THE FULL WIDTH OF THE STEP OR UPPER APPROACH AND SHALL BE OF MATERIAL THAT IS AT LEAST AS SLIP RESISTANT AS THE OTHER TREADS OF THE STAIR. A PAINTED STRIPE SHALL BE ACCEPTABLE. GROOVES SHALL NOT BE USED TO SATISFY THIS REQUIREMENT. [CBC 11B-504.4.1]

3) 7" MAX RISER HEIGHT AND 11" MIN TREAD DEPTH REQUIRED AT ALL STAIRS, TYP. U.N.O. STAIR TREADS AND RISERS SHALL BE OF UNIFORM SIZE/SHAPE. THE TOLERANCE BETWEEN THE LARGEST AND SMALLEST TREAD DEPTH SHALL NOT EXCEED 0.375" (3/8") IN ANY FLIGHT OF STAIRS. [CBC 1011.5]

4) PROVIDE BACKING AND/OR BLOCKING AS NEEDED FOR HANDRAILS PER 8 / A930

WALL LEGEND

NOTE: SEE FINISH SCHEDULE ON A701 FOR MORE INFORMATION

	A	TYP. EXT. WALL	- / -	5 / A000
	B	TYP. PARTY WALL	1-HR / STC-50	6 / A000
	C	TYP. INT. WALL	- / -	7 / A000
	D	TYP. EXT. WALL W/ STONE FINISH	- / -	8 / A000
	E	TYP. EXT. WALL W/ STUCCO EA. SIDE	- / -	9 / A000
	F	TYP. WATER HEATER CLOSET	- / -	10 / A000
	G	TYP. LAUNDRY WALL	- / -	11 / A000
	H	TYP. FIRE RATED WALL	1-HR / -	12 / A000

PH

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PROJECT:
JAY SINGH

SELMA MULTI-FAMILY HOUSING

HIGHLAND AVE + NEBRASKA ST, SELMA, CA 93662

SHEET: BLDG A - SECOND FLOOR PLANS

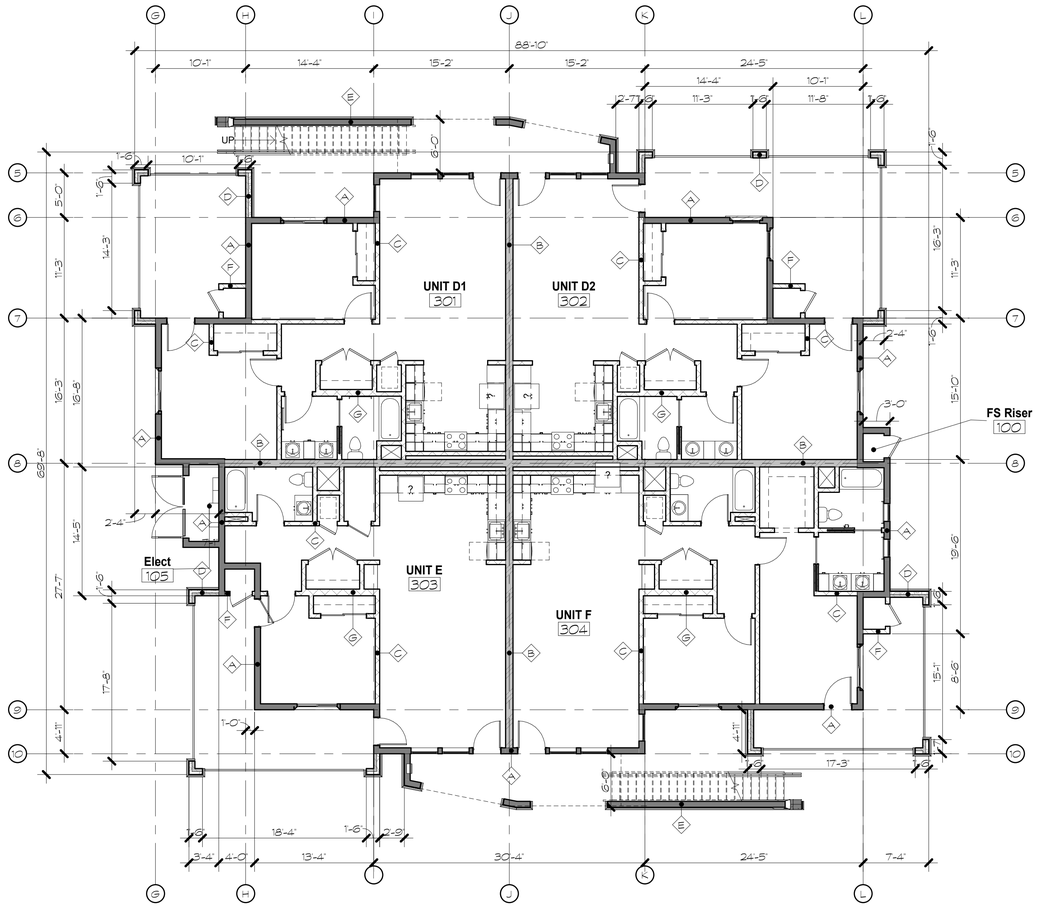
DRAWING SET INFORMATION:

10.07.22	BASE DRAWINGS

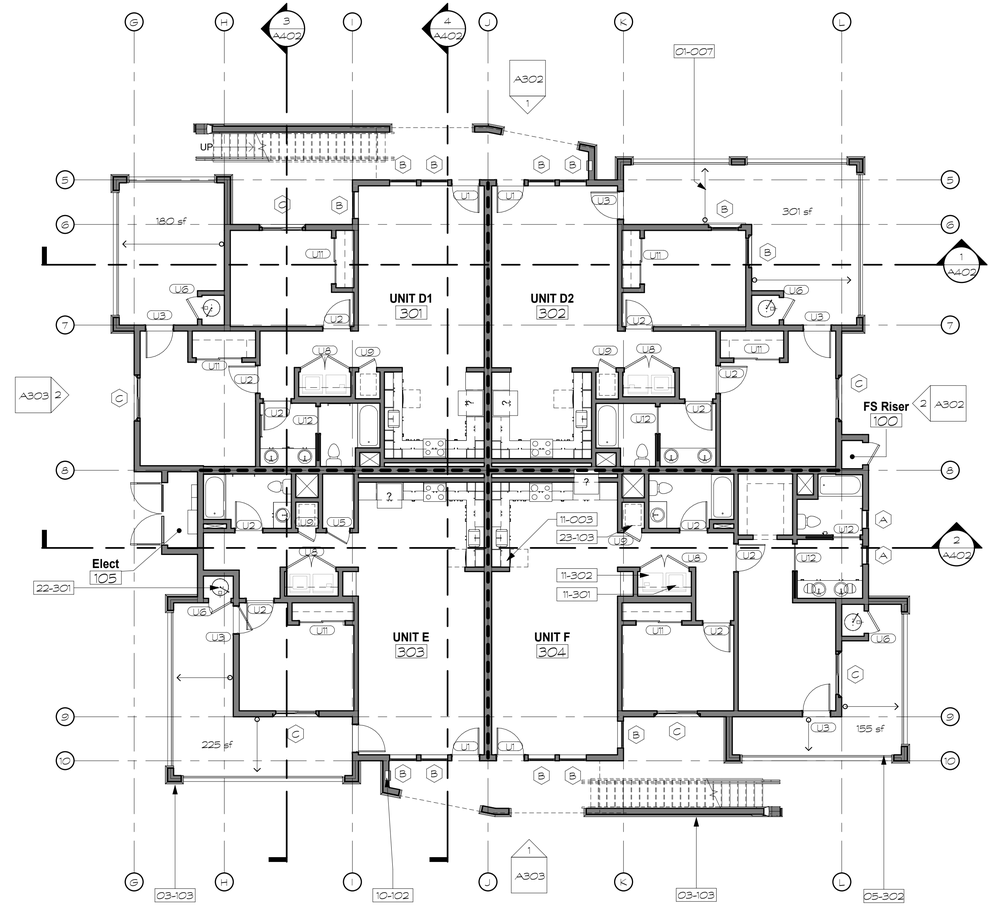
REVISIONS:

PROJECT NUMBER:
2021-60

SHEET NUMBER:
A202



1 BLDG B - FIRST FLOOR DIM PLAN
1/8" = 1'-0"



2 BLDG B - FIRST FLOOR KEYNOTE PLAN
1/8" = 1'-0"

GENERAL NOTES

1) DIMENSIONS WITH 'MIN' 'CLR' 'MIN CLR' OR 'ABSOLUTE' ARE MEASURED FROM FACE OF WALL FINISH

2) FOR TYPICAL REACH RANGES, SEE DETAIL 7 / A900

3) FOR DOOR CLEARANCES, SEE DETAILS 8 / A900 AND 12 / A900

4) ROOM NUMBERING SHOWN HERE IS NOT TO BE USED FOR ROOM SIGNAGE. CONFIRM WITH OWNER PRIOR TO FABRICATION AND INSTALLATION

5) FOR FIXTURE AND TOILET ACCESSORIES MOUNTING AND LOCATION, SEE INTERIOR ELEVATIONS AND 19 / A900

6) FOR FINISH, DOOR AND WINDOW INFORMATION, SEE A701-703

7) PROVIDE BACKING AS NEEDED FOR ALL ITEMS, SEE DETAIL 8 / A930

8) ALL NEW PARTITION WALLS SHALL BE CONTINUOUS TO UNDERSIDE OF ROOF DECK, TYP. U.N.O.

KEYNOTES

01-007	SLOPE AWAY FROM BUILDING/TOWARDS SCUPPER, SEE GENERAL NOTES ON G100
03-103	PRECAST CONCRETE MOULDING, SEE ELEVATIONS
05-302	METAL GUARDRAIL, SEE XX/AXXX
10-102	SEMI-RECESSED FIRE EXTINGUISHER CABINET, SEE 2/A932
11-003	DISHWASHER, PROVIDE POWER PER ELECTRICAL AND WATER PER PLUMBING
11-301	WASHER, PROVIDE POWER PER ELECTRICAL AND WATER PER PLUMBING
11-302	ELECTRIC DRYER, PROVIDE POWER PER ELECTRICAL
22-301	ELECTRIC TANK-STYLE WATER HEATER, SEE PLUMBING
23-103	ELECTRIC FURNACE, SEE MECHANICAL

STAIR NOTES

1) SEE 5 / A932 FOR TYPICAL STAIR HANDRAIL CLEARANCES AND LOCATION, TYP.

2) ALL EXTERIOR STAIRS SHALL HAVE THE UPPER APPROACH AND ALL TREADS MARKED BY A STRIPE PROVIDING CLEAR VISUAL CONTRAST. THE STRIPE SHALL BE A MINIMUM OF 2" WIDE TO A MAXIMUM OF 4" WIDE PLACED PARALLEL TO, AND NOT MORE THAN 1" FROM THE NOSE OF THE STEP OR UPPER APPROACH. THE STRIPE SHALL EXTEND THE FULL WIDTH OF THE STEP OR UPPER APPROACH AND SHALL BE OF MATERIAL THAT IS AT LEAST AS SLIP RESISTANT AS THE OTHER TREADS OF THE STAIR. A PAINTED STRIPE SHALL BE ACCEPTABLE. GROOVES SHALL NOT BE USED TO SATISFY THIS REQUIREMENT. [CBC 11B-504.4.1]

3) 7" MAX RISER HEIGHT AND 11" MIN TREAD DEPTH REQUIRED AT ALL STAIRS, TYP. U.N.O. STAIR TREADS AND RISERS SHALL BE OF UNIFORM SIZE/SHAPE. THE TOLERANCE BETWEEN THE LARGEST AND SMALLEST TREAD DEPTH SHALL NOT EXCEED 0.375" (3/8") IN ANY FLIGHT OF STAIRS. [CBC 1011.5]

4) PROVIDE BACKING AND/OR BLOCKING AS NEEDED FOR HANDRAILS PER 8 / A930

WALL LEGEND

NOTE: SEE FINISH SCHEDULE ON A701 FOR MORE INFORMATION

	A	TYP. EXT. WALL	- / -	5 / A000
	B	TYP. PARTY WALL	1-HR / STC-50	6 / A000
	C	TYP. INT. WALL	- / -	7 / A000
	D	TYP. EXT. WALL W/ STONE FINISH	- / -	8 / A000
	E	TYP. EXT. WALL W/ STUCCO EA. SIDE	- / -	9 / A000
	F	TYP. WATER HEATER CLOSET	- / -	10 / A000
	G	TYP. LAUNDRY WALL	- / -	11 / A000
	H	TYP. FIRE RATED WALL	1-HR / -	12 / A000

PH

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PROJECT:
JAY SINGH

SELMA MULTI-FAMILY HOUSING

HIGHLAND AVE + NEBRASKA ST, SELMA, CA 93662

SHEET: BLDG B - FIRST FLOOR PLANS

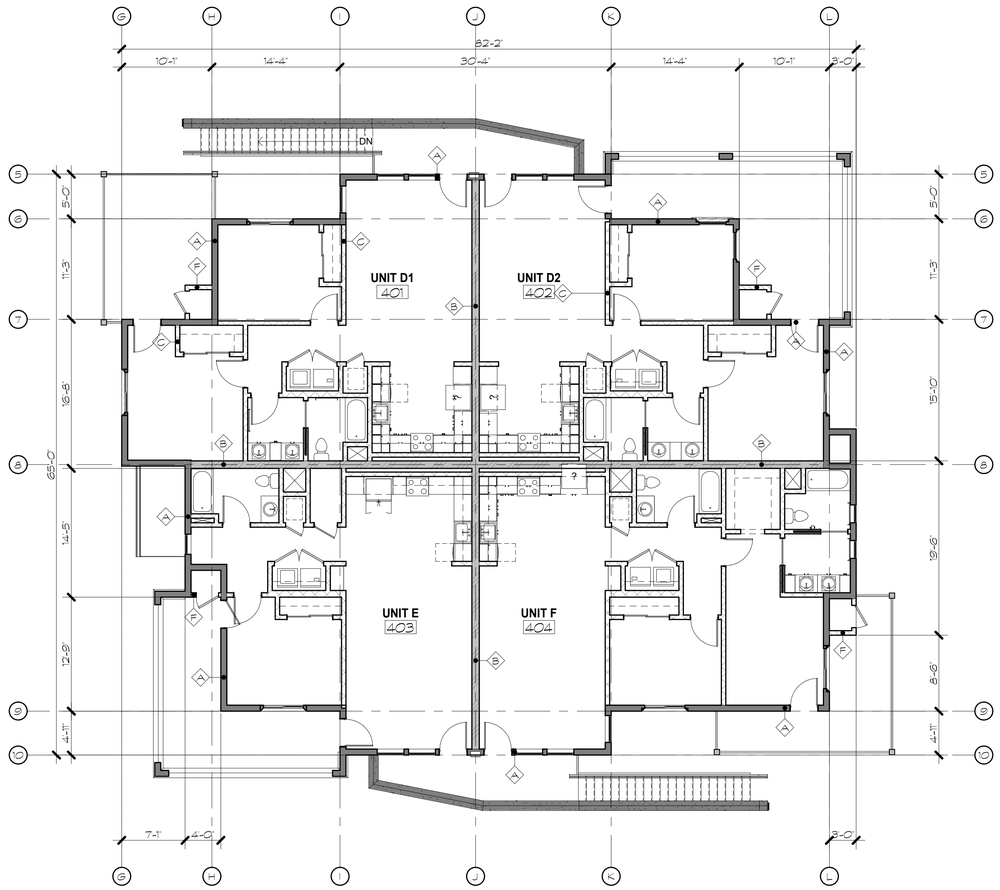
DRAWING SET INFORMATION:

10.07.22	BASE DRAWINGS

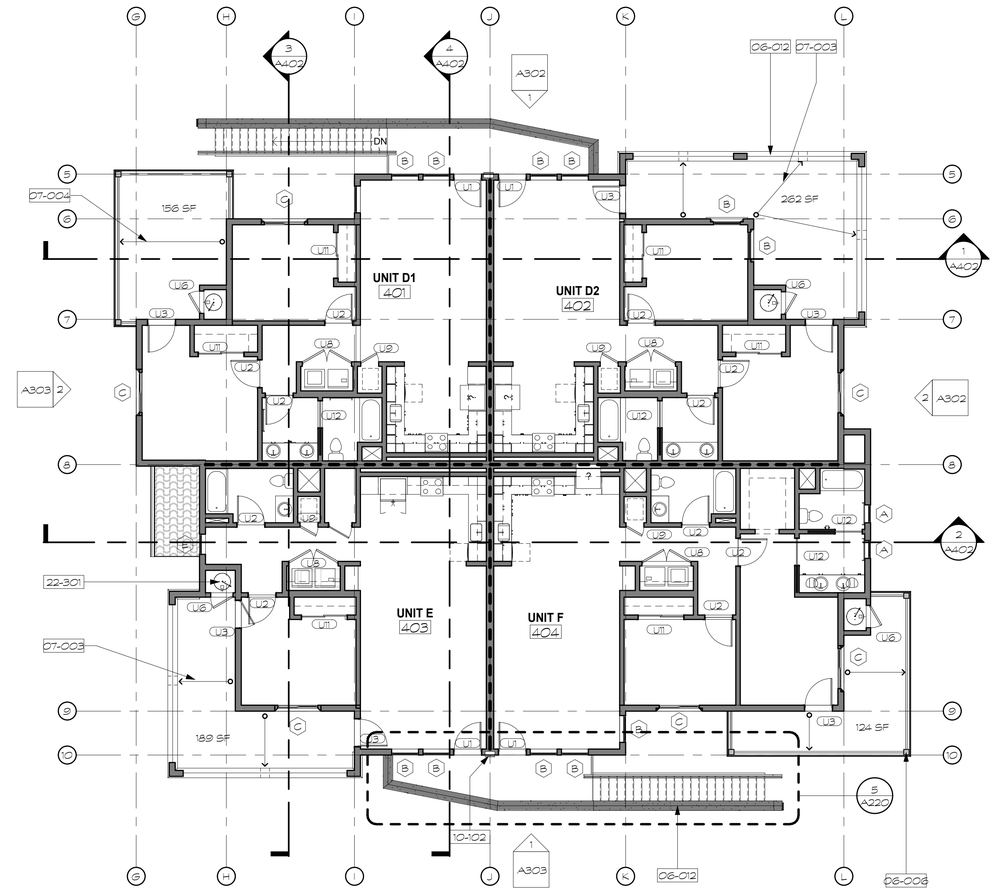
REVISIONS:

PROJECT NUMBER:
2021-60

SHEET NUMBER:
A203



1 BLDG B - SECOND FLOOR DIM PLAN
1/8" = 1'-0"



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7) PROVIDE BACKING AS NEEDED FOR ALL ITEMS, SEE DETAIL 8 / A930

8) ALL NEW PARTITION WALLS SHALL BE CONTINUOUS TO UNDERSIDE OF ROOF DECK, TYP. U.N.O.

KEYNOTES

06-006	WOOD COLUMN/BEAM, SEE STRUCTURAL
06-012	FURRED WALL, SEE ELEVATIONS
07-003	DRAIN BALCONY TO SCUPPER AT 1/4:12 MIN, TYP.
07-004	SHEET FLOW OFF BALCONY EDGE, TYP.
10-102	SEMI-RECESSED FIRE EXTINGUISHER CABINET, SEE 2/A932
22-301	ELECTRIC TANK-STYLE WATER HEATER, SEE PLUMBING

STAIR NOTES

1) SEE 5 / A932 FOR TYPICAL STAIR HANDRAIL CLEARANCES AND LOCATION, TYP.

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WALL LEGEND

NOTE: SEE FINISH SCHEDULE ON A701 FOR MORE INFORMATION

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PROJECT:
JAY SINGH
SELMA MULTI-FAMILY HOUSING
HIGHLAND AVE + NEBRASKA ST, SELMA, CA 93662
SHEET: BLDG B - SECOND FLOOR PLANS

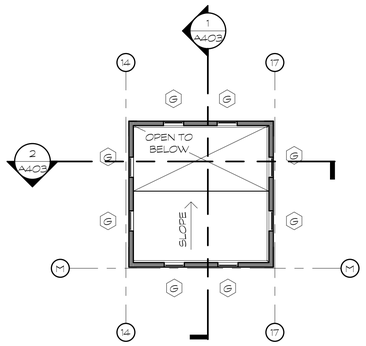
DRAWING SET INFORMATION:

10.07.22	BASE DRAWINGS

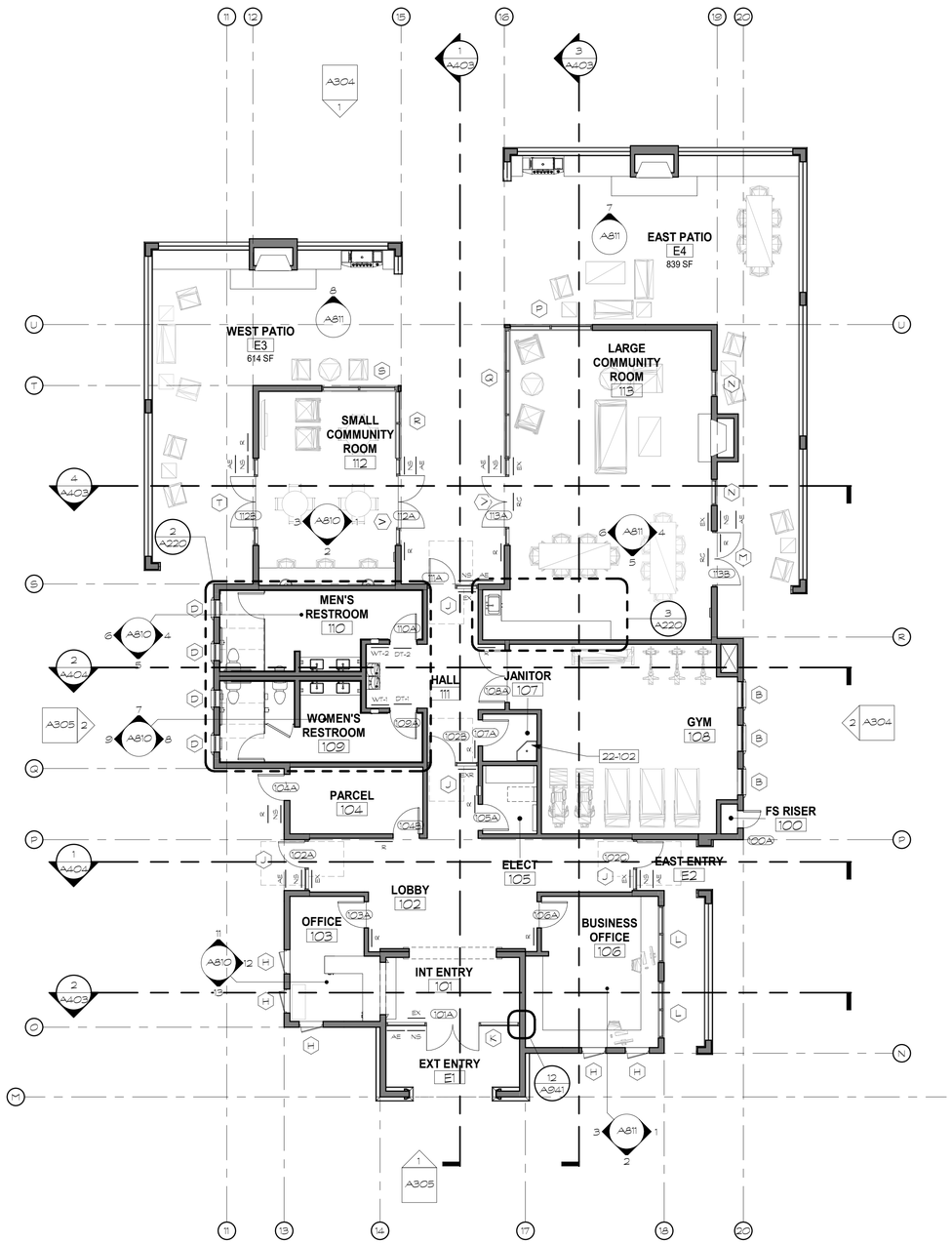
REVISIONS:

PROJECT NUMBER:
2021-60

SHEET NUMBER:
A204



2 CLUBHOUSE TOWER PLAN
1/8" = 1'-0"



1 CLUBHOUSE - KEYNOTE PLAN
1/8" = 1'-0"

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KEYNOTES

22-102 MOP SINK, SEE PLUMBING

PH

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PROJECT:
JAY SINGH
SELMA MULTI-FAMILY HOUSING
HIGHLAND AVE + NEBRASKA ST, SELMA, CA 93662
SHEET: CLUBHOUSE - KEYNOTE PLAN

DRAWING SET INFORMATION:

10.07.22	BASE DRAWINGS

REVISIONS:

PROJECT NUMBER:
2021-60

SHEET NUMBER:
A205

Attachment C
Project Geotechnical Engineering Investigation

GEOTECHNICAL • ENVIRONMENTAL • GEOLOGY • MATERIALS TESTING & INSPECTION • FORENSIC • LABORATORY

SALEM
engineering group, inc.

GEOTECHNICAL ENGINEERING INVESTIGATION

PROPOSED SELMA MULTI-FAMILY HOUSING PROJECT
LOT NEAR NE CORNER OF HIGHLAND AVE AND NEBRASKA AVE
APN #: 388-03-026
SELMA, CALIFORNIA

SALEM PROJECT NO. 1-222-0679
AUGUST 5, 2022

PREPARED FOR:

MR. JATINDER SINGH
1924 MINNEWAWA AVE
CLOVIS, CA 93612

PREPARED BY:

SALEM ENGINEERING GROUP, INC.
4729 W. JACQUELYN AVENUE
FRESNO, CA 93722
P: (559) 271-9700
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SALEM engineering group, inc.

4729 W. Jacquelyn Avenue
Fresno, CA 93722
Phone (559) 271-9700
Fax (559) 275-0827

August 5, 2022 Project No. 1-222-0679

Mr. Jatinder Singh
1924 Minnewawa Ave
Clovis, CA 93612

SUBJECT: GEOTECHNICAL ENGINEERING INVESTIGATION
Proposed Selma Multi-Family Housing Project
Lot Near NEC of Highland Avenue and Nebraska Avenue
(Near Coordinates 36.5636, -119.6275).
Selma, California

Dear Mr. Singh

As requested and authorized, SALEM Engineering Group, Inc. (SALEM) has prepared this Geotechnical Engineering Investigation report for the proposed site development will include a phase I and phase II construction of around total 19 building pads to consist of total 144 Multi-Family units, and clubhouse building planned within a vacant lot located near the northeast corner of Highland Avenue and Nebraska Avenue (Near Coordinates 36.5636, -119.6275), in Selma, California.

The accompanying report presents our findings, conclusions, and recommendations regarding the geotechnical aspects of designing and constructing the project as presently proposed. In our opinion, the proposed project is feasible from a geotechnical viewpoint provided our recommendations are incorporated into the design and construction of the project.

We appreciate the opportunity to assist you with this project. Should you have questions regarding this report or need additional information, please contact the undersigned at (559) 271-9700.

Respectfully Submitted,

SALEM ENGINEERING GROUP, INC.

Ahmad Dalqamouni

Ahmad Dalqamouni, Ph.D., M.CE
Geotechnical Staff Engineer

Dean B. Ledgerwood II, EIT, PG, CEG
Geotechnical Manager
PG 8725 / CEG 2613

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APPENDIX B – LABORATORY TESTING
Consolidation Test Results
Direct Shear Test Result
Gradation Curves
Atterberg Limits Test Result
Expansion Index Test Result
Resistance Value Test Results
Corrosivity Test Results

SALEM engineering group, inc.

4729 W. Jacquelyn Avenue
Fresno, CA 93722
Phone (559) 271-9700
Fax (559) 275-0827

GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED SELMA MULTI-FAMILY HOUSING BUILDINGS
APN #: 388-03-026
NEAR NORTHEAST CORNER OF HIGHLAND AVENUE AND NEBRASKA AVENUE
SELMA, CALIFORNIA

1. PURPOSE AND SCOPE

This report presents the results of our Geotechnical Engineering Investigation for the proposed site development will include will include a phase I and phase II construction of around total 19 building pads to consist of total 144 Multi-Family units, and clubhouse building, planned within a vacant lot located near the northeast corner of Highland Avenue and Nebraska Avenue (near Coordinates 36.5636, -119.6275) in Selma, California, as depicted on Figure 1, Vicinity Map.

SALEM Engineering Group, Inc. (SALEM) has completed this geotechnical engineering investigation with the purpose to observe and sample the subsurface conditions encountered at the site, and provide conclusions and recommendations relative to the geotechnical aspects of constructing the project as presently proposed. The recommendations presented herein are based on analysis of the data obtained during the investigation and our local experience with similar soil and geologic conditions.

If project details vary significantly from those described herein, SALEM should be contacted to determine the necessity for review and possible revision of this report.

2. SITE LOCATION AND DESCRIPTION

The subject project site is planned into-phase I and phase II construction of around total 19 building, that will be located on vacant lot near the northeast corner of Highland Avenue and Nebraska Avenue (near Coordinates 36.5636, -119.6275) in Selma, California (see Vicinity Map, Figure 1). The subject site is relatively rectangular in shape with a reported area of approximately 9.6 acres. At the time of our field exploration, the site was covered with grassy vegetation with scattered shrubs. The site is bounded to the north by Fig Street and residential development; to the east by local access road and further east by elementary school and Ringo Park, to the south by vacant lot, Nebraska Avenue and, and to the southwest by Super Drive Inn and 76 Fuel Station, and west side by Highland Avenue.

The project site area is relatively flat. At the time of this investigation the site was generally vacant. Based on review of Google Earth historic aerial imagery, the site appears to have primarily been used light farming fields. In addition, based on google imagery, the site elevation is around 306 feet above mean sea level (AMSL).

At the time of the preparation of this investigation, previous geologic, geotechnical or environmental studies were not provided to SALEM for review. If available, SALEM should be provided these documents for review.

3. PROJECT DESCRIPTION

Based on review of the provided site plan, drawn by Paul Halajian Architects, Project # 2021-60, undated plan, we understand that project will include a phase I and phase II construction of around total 19 building pads to consist of total 144 Multi-Family units , and clubhouse building. The proposed project construction will be over a total lot area of 9.6 Acres, in Selma, California. The proposed building pad areas are estimated to range between 8,480 and 8,766 square foot per plan view area. The clubhouse building pad area is estimated to be around 3,548 square foot per plan view area.

It is our understanding the buildings will include 2-story wood framed construction, with slabs on grade floor and conventional shallow spread and continuous foundations. At the time of this report, precise foundation loads were unknown. However, based on our experience, maximum column loads of about 20 to 80 kips and wall bearing loads of 1 to 4 kips per linear feet are anticipated.

In addition, appurtenant construction is anticipated to include, Portland cement concrete and asphaltic concrete pavements, concrete walkways, roadways, landscape areas, and underground utilities.

A site grading plan was not available at the time of preparation of this proposal. As the existing project area appears relatively flat, we anticipate that cuts and fills during earthwork will be on the order of 1 to 3 feet to providing a level pad and positive site drainage. In the event that changes occur in the nature or design of the project, the conclusions and recommendations contained in this report will not be considered valid unless the changes are reviewed and the conclusions of our report are modified. The site location and approximate locations of proposed improvements are shown on the Site Plan, Figure 2.

4. FIELD EXPLORATION

Our field exploration consisted of site surface reconnaissance and subsurface exploration. The exploratory test borings (B-1 through B-25) were drilled between July 6, 2022 and July 7, 2022 within or near the proposed building areas to the depths ranging from 5 feet to the maximum depth explored of 31.5 feet BSG. The approximate locations of the test borings are shown on Figure No. 2, Site Plan. The test borings were advanced with 6 5/8 inch diameter hollow stem auger rotated by a truck-mounted CME-55 drill rig.

The materials encountered in the test borings were visually classified in the field, and logs were recorded by a field engineer at that time. Visual classification of the materials encountered in the test borings was generally made in accordance with the Unified Soil Classification System (ASTM D2487).

A soil classification chart and key to sampling is presented on the Unified Soil Classification Chart, in Appendix "A." The test boring logs are presented in Appendix "A." Subsurface soil samples were obtained by driving a Modified California sampler (MCS) or a Standard Penetration Test (SPT) sampler.

Penetration resistance blow counts were obtained in the hollow stem auger borings by dropping a 140-pound automated trip hammer through a 30-inch free fall to drive the sampler to a maximum penetration of 18 inches. The number of blows required to drive the last 12 inches, or less if very dense or hard, is recorded as Penetration Resistance (blows/foot) on the logs of borings.

Soil samples were obtained from the test borings at the depths shown on the boring logs. The MCS samples were recovered and capped at both ends to preserve the samples at their natural moisture content; SPT samples were recovered and placed in a sealed bag to preserve their natural moisture content. At the completion of drilling and sampling, the test borings were backfilled with soil cuttings, thus some settlement should be anticipated.

5. LABORATORY TESTING

Laboratory tests were performed on selected soil samples to evaluate their physical characteristics and engineering properties. The laboratory-testing program was formulated with emphasis on the evaluation of natural moisture, density, shear strength, consolidation, expansion index, Atterberg Limits, R-Value, and gradation of the materials encountered.

In addition, chemical tests were performed to evaluate the corrosivity of the soils to buried concrete and metal. Details of the laboratory test program and the results of laboratory test are summarized in Appendix B. This information, along with the field observations, was used to prepare the final boring logs in Appendix A.

6. SOIL AND GROUNDWATER CONDITIONS

6.1 Subsurface Soil Conditions

In general, the subsurface conditions encountered appear typical of those found in the geologic region of the site. The soils encountered generally consisted of loose to medium dense silty sand, underlain by interbedded layers of sandy silt, loose poorly graded sand with silt, and silty sand to the maximum depth explored of 31.5 feet below site grade. It should be noted that isolated areas of hard/dense soils locally referred to as hardpan were noted in few test borings within the upper 10 feet BSG (e.g. in B-4). Although hardpan was not encountered uniformly throughout the site it is anticipated that deeper excavations may require additional excavation efforts.

Two (2) consolidation test obtained from a shallow undisturbed sample resulted in about 4.2 and 3.6, percent consolidation under a load of 8 kips per square foot. When wetted under a load of 2 kips per square foot, these samples exhibited approximate 1.6 and 1.9 percent collapse, respectively. Three (3) direct shear tested on samples at various depths between 3.5 to 10 feet depth, resulted in internal angles of friction of 36, 40 and 36 degrees with cohesion values of 157, 183 and 218 pounds per square feet, respectively. Three (3) Atterberg Limits tests performed on soil samples resulted in plasticity index values of ranging from non-plastic (NP) to 3 with liquid limit values ranging from 16 to 20. Three (3) expansion index tests performed on a samples collected from the upper 3 feet BSG resulted in an expansion indexes of 0 (very low expansion potential).

The near surface soils have a very good pavement support characteristics when compacted as engineered fill, as indicated by R-Value test results of 73 for both samples tested.

Soil conditions described in the previous paragraphs are generalized. Therefore, the reader should consult exploratory boring logs included in Appendix A for soil type, color, moisture, consistency, and USCS classification of the materials encountered at specific locations and elevations.

6.2 Groundwater

The test borings were checked for the presence of free groundwater during and after the excavation operations. Groundwater was not encountered to the depth of maximum exploration of 31.5 feet below site grade, during the time of our subsurface investigation.

Based on review of well data provided on the Department of Water Resources Water Data Library website (http://www.wdl.water.ca.gov/), State Well Number: 16S22E07C001M located approximately 0.5 miles southeast of the site reports a historical groundwater depth of 13.8 feet below site grade in June 1946.

It should be recognized that water table elevations may fluctuate with time, being dependent upon seasonal precipitation, irrigation, land use, localized pumping, and climatic conditions as well as other factors. Therefore, water level observations at the time of the field investigation may vary from those encountered during the construction phase of the project. The evaluation of such factors is beyond the scope of this report.

6.3 Soil Corrosion Screening

Excessive sulfate in either the soil or native water may result in an adverse reaction between the cement in concrete and the soil. The 2014 Edition of ACI 318 (ACI 318) has established criteria for evaluation of sulfate and chloride levels and how they relate to cement reactivity with soil and/or water. A soil sample was obtained from the project site and was tested for the evaluation of the potential for concrete deterioration or steel corrosion due to attack by soil-borne soluble salts and soluble chloride. The water-soluble sulfate concentration in the saturation extract from the soil samples were detected to be less than 50 mg/kg.

ACI 318 Tables 19.3.1.1 and 19.3.2.1 outline exposure categories, classes, and concrete requirements by exposure class. ACI 318 requirements for site concrete based upon soluble sulfate are summarized in Table 6.3 below.

TABLE 6.3
WATER SOLUBLE SULFATE EXPOSURE REQUIREMENTS

Dissolved Sulfate (SO_4) in Soil % by Weight	Exposure Severity	Exposure Class	Maximum w/cm Ratio	Minimum Concrete Compressive Strength	Cementitious Materials Type
<0.005	Negligible	S0	N/A	2,500 psi	No Restriction
<0.005	Negligible	S0	N/A	2,500 psi	No Restriction

The water-soluble chloride concentration detected in saturation extract from the soil samples was 21, and 18 mg/kg. In addition, testing performed on two near surface soil resulted in a minimum resistivity values of 19,853 and 15,023 ohm-centimeters, respectively. Based on the results, these soils would be considered to have a “Negligible Corrosion” potential to buried metal objects (per National Association of Corrosion Engineers, Corrosion Severity Ratings). It is recommended that, at a minimum, applicable manufacturer’s recommendations for corrosion protection of buried metal pipe be closely followed.

7. GEOLOGIC SETTING

The project site is in the San Joaquin Valley, which is a topographic and structural basin that is bounded on the east by the Sierra Nevada and on the west by the Coast Ranges. The Sierra Nevada, a fault block dipping gently southwestward, is made up of igneous and metamorphic rocks of pre-Tertiary age that comprise the basement complex beneath the Valley. The Coast Ranges contain folded and faulted sedimentary rocks of Mesozoic and Cenozoic age, which are similar to those rocks that underlie the Valley at depth and non-conformably overlie the basement complex; gently dipping to nearly horizontal sedimentary rocks of Tertiary and Quaternary age overlie the older rocks. The Coast Ranges evolved as a result of folding, faulting and accretion of diverse geologic terrains. They are composed chiefly of sedimentary and metamorphic rocks that are sharply deformed into complex structures. They are broken by numerous faults, the San Andreas Fault being the most notable feature.

The San Joaquin Valley is within the Great Valley Geomorphic Province of California. The San Joaquin Valley has been filled with sedimentary deposits of Mesozoic and Cenozoic sediments derived from the Sierra Nevada and Coast Ranges.

Based on review of the Geologic Map of California: Fresno Sheet[1], the area of the subject site is in an area mapped as Quaternary age Great Valley Fan Deposits (Qf), described as "sediments deposited from water streams emerging from the highlands surrounding the Great Valley. Deposits encountered on the subject site during exploratory drilling are discussed in detail in this report.

8. GEOLOGIC HAZARDS

8.1 Faulting and Seismicity

Based on the proximity of several dominant active faults and seismogenic structures, as well as the historic seismic record, the area of the subject site is considered subject to relatively low seismicity.

The project area is not within an Alquist-Priolo Special Studies Zone and will not require a special site investigation by an Engineering Geologist. Soils on site are classified as Site Class D in accordance with Chapter 16 of the California Building Code. The proposed structures are determined to be in Seismic Design Category D.

To determine the distance of known active faults within 100 miles of the site, we used the United States Geological Survey (USGS) web-based application *2008 National Seismic Hazard Maps - Fault Parameters*. Site latitude is 36.5639° North; site longitude is -119.6274° West. The ten closest active faults are summarized below in Table 8.1.

TABLE 8.1 -REGIONAL FAULT SUMMARY

Fault Name	Distance to Site (miles)	Maximum Earthquake Magnitude, M_w
Great Valley 13 (Coalinga)	39.39	7.1
Great Valley 14 (Kettleman Hills)	40.86	7.2
Great Valley 12	43.12	6.4
Great Valley 11	45.94	6.6
Great Valley 10	56.81	6.5
Great Valley 9	64.57	6.8
S. San Andreas; PK+CH+CC+BB+NM+SM	64.83	7.8
San Andreas fault - creeping segment	64.96	N/A
S. San Andreas; CH+CC+BB+NM+SM	67.47	8.0

The faults tabulated above and numerous other faults in the region are sources of potential ground motion. However, earthquakes that might occur on other faults throughout California are also potential generators of significant ground motion and could subject the site to intense ground shaking.

[1] Matthews, R.A., and Burnett, J.L., 1965, Geologic map of California : Fresno sheet: California Division of Mines and Geology, scale 1:250,000

8.2 Surface Fault Rupture

The site is not within a currently established State of California Earthquake Fault Zone for surface fault rupture hazards. No active faults with the potential for surface fault rupture are known to pass directly beneath the site. Therefore, the potential for surface rupture due to faulting occurring beneath the site during the design life of the proposed development is considered low.

8.3 Ground Shaking

Based on the 2019 CBC, a Site Class D was selected for the site based on soil conditions with standard penetration resistance, N-values, averaging between 15 and 50 blows per foot. Table 9.6.1 includes design seismic coefficients and spectral response parameters, based on the 2019 California Building Code (CBC) for the project foundation design.

Based on Office of Statewide Health Planning and Development (OSHPD) Seismic Design Maps, the estimated design peak ground acceleration adjusted for site class effects (PGA_M) was determined to be 0.350 g (based on both probabilistic and deterministic seismic ground motion).

8.4 Liquefaction

Soil liquefaction is a state of soil particles suspension caused by a complete loss of strength when the effective stress drops to zero. Liquefaction normally occurs under saturated conditions in soils such as sand in which the strength is purely frictional. Primary factors that trigger liquefaction are: moderate to strong ground shaking (seismic source), relatively clean, loose granular soils (primarily poorly graded sands and silty sands), and saturated soil conditions (shallow groundwater). Due to the increasing overburden pressure with depth, liquefaction of granular soils is generally limited to the upper 50 feet of a soil profile.

In general, the soils encountered generally loose to medium dense silty sand, underlain by interbedded layers of sandy silt, loose poorly graded sand with silt, and silty sand to the maximum depth explored of 31.5 feet below site grade. Free groundwater was not encountered to the maximum depth explored of 31.5 feet BGS during this investigation. Historic groundwater depths in the region are reported around 13.8 feet below site grade, in 1946.

Based on our experience in the Selma area, the relative density of the soils encountered during this investigation and the relatively low peak ground acceleration, the potential for liquefaction/seismic settlement to impact the site is considered low.

8.5 Lateral Spreading

Lateral spreading is a phenomenon in which soils move laterally during seismic shaking and is often associated with liquefaction. The amount of movement depends on the soil strength, duration and intensity of seismic shaking, topography, and free face geometry. Due to the relatively flat site topography, we judge the likelihood of lateral spreading to be very low.

8.6 Landslides

There are no known landslides at the site, nor is the site in the path of any known or potential landslides. We do not consider the potential for a landslide to be a hazard to this project.

8.7 Tsunamis and Seiches

The site is not located within a coastal area. Therefore, tsunamis (seismic sea waves) are not considered a significant hazard at the site.

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. No major water-retaining structures are located immediately up gradient from the project site. Flooding from a seismically-induced seiche is considered unlikely.

9. CONCLUSIONS AND RECOMMENDATIONS

9.1 General Conclusions

9.1.1 Based upon the data collected during this investigation, and from a geotechnical engineering standpoint, it is our opinion that the site is suitable for the proposed construction of improvements at the site as planned, provided the recommendations contained in this report are incorporated into the project design and construction. Conclusions and recommendations provided in this report are based on our review of available literature, analysis of data obtained from our field exploration and laboratory testing program, and our understanding of the proposed development at this time.

9.1.2 In general, the soils encountered consisted of loose to medium dense silty sand, underlain by interbedded layers of sandy silt, loose poorly graded sand with silt, and silty sand to the maximum depth explored of 31.5 feet below site grade. It should be noted that isolated areas of cemented hard/dense soils locally referred to as hardpan were noted in very few test borings within the upper 10 feet BSG. Although hardpan was not encountered uniformly throughout the site it is anticipated that deeper excavations may require additional excavation efforts.

9.1.3 The tested near surface soils exhibited moderate consolidation and when wetted under nominal load exhibited slight to moderate collapse potential. Based on the samples tested the on-site soils have very low expansion potential. When compacted as engineered fill, the soils encountered have very good pavement support characteristics.

9.1.4 Based on the subsurface conditions at the site, we assume that the proposed buildings will be supported using conventional shallow foundations.

9.1.5 Provided the site is graded in accordance with the recommendations of this report and any new foundations constructed as described herein, we estimate that total settlement due to static loads to shallow spread foundations on the order of about 1-inch and differential static of ½ inch in 30 feet, should be anticipated for design.

9.1.6 Based on the chemistry testing performed, the near surface soils have ‘negligible’ potential for sulfate attack on concrete. Also, these soils would be considered to have a “Negligible corrosive” potential to buried metal objects.

9.1.7 All references to relative compaction and optimum moisture content in this report are based on ASTM D 1557 (latest edition).

9.1.8 We should be retained to review the project plans as they develop further, provide engineering consultation as-needed, and perform geotechnical observation and testing services during construction.

9.2 Surface Drainage

9.2.1 Proper surface drainage is critical to the future performance of the project. Uncontrolled infiltration of irrigation excess and storm runoff into the soils can adversely affect the performance of the planned improvements. Saturation of a soil can cause it to lose internal shear strength and increase its compressibility, resulting in a change to important engineering properties. Proper drainage should be maintained at all times.

9.2.2 Uncovered ground immediately adjacent to the foundation should be sloped away from the buildings at a slope of not less than 5 percent for a minimum distance of 10 feet. Impervious surfaces within 10 feet of the building foundation should be sloped a minimum of 1 percent away from the building and drainage gradients maintained to carry all surface water to collection facilities and off site. These grades should be maintained for the life of the project. Ponding of water should not be allowed adjacent to the structure. Over-irrigation within landscaped areas adjacent to the structure should not be performed.

9.2.3 Roof drains should be installed with appropriate downspout extensions out-falling on splash blocks so as to direct water a minimum of 5 feet away from the structures or be connected to the storm drain system for the development.

9.3 Site Grading

9.3.1 This testing and observation is an integral part of our service as acceptance of earthwork construction is dependent upon compaction of the material and the stability of the material. The Geotechnical Engineer may reject any material that does not meet compaction and stability requirements. Further recommendations of this report are predicated upon the assumption that earthwork construction will conform to recommendations set forth in this section as well as other portions of this report.

9.3.2 A preconstruction conference should be held at the site prior to the beginning of grading operations with the owner, contractor, civil engineer and geotechnical engineer in attendance.

9.3.3 Site demolition activities should include removal of all surface obstructions not intended to be incorporated into final site design. In addition, undocumented fill, underground buried structures, existing foundations, and/or utility lines encountered during demolition and construction should be properly removed and the resulting excavations backfilled with Engineered Fill. After demolition activities, it is recommended that disturbed soils be removed and/or replaced with compacted engineered fill soils. Site demolition activities should not undermine existing improvements to remain.

9.3.4 Site preparation should begin with removal of existing any existing surface/subsurface structures, pavements, underground utilities (as required and if encountered), foundations, disturbed soil, any existing uncertified/undocumented fill, and debris. Underground utilities within the limits of the proposed building pads should be removed and relocated. Excavations or depressions resulting from site clearing operations, or other existing excavations or depressions, should be restored with Engineered Fill in accordance with the recommendations of this report.

9.3.5 Surface vegetation consisting of grasses and other similar vegetation should be removed by stripping to a sufficient depth to remove organic-rich topsoil. The upper 2 to 4 inches of the soils containing, vegetation, roots and other objectionable organic matter encountered at the time of grading should be stripped and removed from the surface. Deeper stripping may be required in

localized areas. The stripped vegetation will not be suitable for use as Engineered Fill or within 5 feet of building pads. However, stripped topsoil may be stockpiled and reused in landscape or non-structural areas or exported from the site.

9.3.6 Where not to remain, any existing trees to be removed should have their root systems be thoroughly cleared of root balls as well as isolated roots greater than ¼-inch in diameter. The root system removal may disturb a significant quantity of soil. Following tree removal, all loose and disturbed soil should be removed from the tree wells. Any areas or pockets of soft or loose soils, void spaces made by burrowing animals, undocumented fill, or other disturbed soil (i.e. soil disturbed by root removal) that are encountered, should be excavated to expose approved firm native material. Care should be taken during site grading to mitigate (e.g. excavate and compact as engineered fill) all soil disturbed by demolition and tree removal activities

9.3.7 Structural building pad areas and over-build zones should be considered as areas extending a minimum of 5 feet horizontally beyond the outside dimensions of buildings, including footings and non-cantilevered overhangs carrying structural loads.

9.3.8 To provide uniform support for the proposed building, it is recommended that over-excavation extend to the minimum depth of 12 inches below foundations, 24 inches below preconstruction site grades, or to the depth to remove loose soil zones or undocumented fills (if any), whichever is greater. The resulting bottom of over-excavation should be scarified to a depth of at least 12 inches, worked until uniform and free from large clods, moisture-conditioned to slightly above optimum moisture, and compacted to a minimum of 92 percent of the maximum density. The horizontal limits of the over-excavation should extend throughout the building over-build zone, laterally to a minimum of 5 feet beyond the outer edges of the proposed footings.

9.3.9 Interior slabs on grade (if any) should be supported on a minimum of 4 inches of non-recycled Class 2 aggregate base compacted to 95 percent relative compaction over the depth of engineered fill extending to the depths recommended below foundations.

9.3.10 Areas of exterior concrete slabs on grade located outside the building pad over-build zone, should be prepared by over-excavation to a depth of 12 inches below existing grade, to the bottom concrete slabs on grade, or the depth required to remove any loose soils or undocumented fills (if encountered), whichever is greater. The zone of subgrade preparation should extend a minimum of 3 feet beyond these improvements. These soils should be scarified 12 inches, moisture conditioned to slightly above optimum and compacted as engineered fill.

Exterior concrete slabs on grade may be supported directly on engineered fill as recommended above. However, to reduce the potential for subgrade disturbance during construction and reduce the potential for slab cracking, the owner may elect to support exterior slabs on grade on a minimum of 4 inches of Class 2 aggregate base compacted to 95 percent relative compaction over subgrade soils prepared as recommended above.

9.3.11 Areas of lightly loaded foundations such as retaining walls, screen walls, etc., should be prepared by over-excavation to a minimum of 1 foot below foundations, 1 foot below preconstruction site grade, or to the depth required to remove loose soils/undocumented fills, whichever is greater. The resulting bottom of over excavation should be scarified to a depth of at least 12 inches, worked until uniform and free from large clods, moisture-conditioned slightly above optimum moisture, and compacted to 92 percent of the maximum density. The horizontal limits of the over-excavation should extend, laterally to a minimum of 5 feet beyond the outer edges of the proposed footings.

9.3.12 Areas of asphaltic concrete and Portland cement concrete pavement areas should be prepared by over-excavation to the bottom of the recommended aggregate base section. The bottom of excavation should be scarified a minimum of 12 inches and compacted as engineered fill. The horizontal limits of the over-excavation should extend, laterally to a minimum of 3 feet beyond pavements.

The upper 12 inches below pavement sections should be compacted to a minimum of 95 percent relative compaction.

9.3.13 Areas to receive engineered fill outside the building pad over-build zone, should be prepared by scarification of the upper 12 inches below existing grade or 12 inches below the recommended base section, whichever is greater. These soils should be moisture conditioned to slightly above optimum and compacted as engineered fill.

9.3.14 An integral part of satisfactory fill placement is the stability of the placed lift of soil. If placed materials exhibit excessive instability as determined by a SALEM field representative, the lift will be considered unacceptable and should be remedied prior to placement of additional fill material. Additional lifts should not be placed if the previous lift did not meet the required dry density or if soil conditions are not stable.

9.3.15 The most effective site preparation alternatives will depend on site conditions prior to grading. We should evaluate site conditions and provide supplemental recommendations immediately prior to grading, if necessary.

9.3.16 We do not anticipate groundwater or seepage to adversely affect construction if conducted during the drier months of the year (typically summer and fall). However, groundwater and soil moisture conditions could be significantly different during the wet season (typically winter and spring) as surface soil becomes wet; perched groundwater conditions may develop. Grading during this time period will likely encounter wet materials resulting in possible excavation and fill placement difficulties. Project site winterization consisting of placement of aggregate base and protecting exposed soils during construction should be performed. If the construction schedule requires grading operations during the wet season, we can provide additional recommendations as conditions warrant.

9.3.17 Typical remedial measures include: discing and aerating the soil during dry weather; mixing the soil with dryer materials; removing and replacing the soil with an approved fill material or placement of crushed rocks or aggregate base material; or mixing the soil with an approved lime or cement product.

The most common remedial measure of stabilizing the bottom of the excavation due to wet soil condition is to reduce the moisture of the soil to near the optimum moisture content by having the subgrade soils scarified and aerated or mixed with drier soils prior to compacting. However, the drying process may require an extended period of time and delay the construction operation. To expedite the stabilizing process, crushed rock may be utilized for stabilization provided this method is approved by the owner for the cost purpose.

If the use of crushed rock is considered, it is recommended that the upper soft and wet soils be replaced by 6 to 24 inches of ¾-inch to 1-inch crushed rocks. The thickness of the rock layer depends on the severity of the soil instability. The recommended 6 to 24 inches of crushed rock material will provide a stable platform. It is further recommended that lighter compaction

equipment be utilized for compacting the crushed rock. All open graded crushed rock/gravel should be fully encapsulated with a geotextile fabric (such as Mirafi 140N) to minimize migration of soil particles into the voids of the crushed rock. Although it is not required, the use of geogrid (e.g. Tensar BX 1100, BX 1200 or TX 160) below the crushed rock will enhance stability and reduce the required thickness of crushed rock necessary for stabilization.

Our firm should be consulted prior to implementing remedial measures to provide appropriate recommendations.

9.4 Soil and Excavation Characteristics

9.4.1 Based on the soils encountered, conventional earthwork equipment is anticipated to achieve required over-excavation depths. It should be noted that isolated areas of cemented hard/dense soils locally referred to as hardpan were noted in isolated layers within the upper 10 feet BSG. Excavations greater than about 3 feet BSG will likely encounter dense or hard, cemented 'hardpan' soils and may require additional excavation effort. The contractor should anticipate hardpan fragments will require mechanical effort to breakdown to achieve a well-blended soil mixture suitable for compaction as engineered fill.

9.4.2 It is the responsibility of the contractor to ensure that all excavations and trenches are properly shored and maintained in accordance with applicable Occupational Safety and Health Administration (OSHA) rules and regulations to maintain safety and maintain the stability of adjacent existing improvements. Temporary excavations are further discussed in a later Section of this report.

9.4.3 The near surface soils identified as part of our investigation are, generally, damp to moist due to the absorption characteristics of the soil. Earthwork operations may encounter very moist unstable soils which may require removal to a stable bottom. Exposed native soils exposed as part of site grading operations should not be allowed to dry out and should be kept continuously moist prior to placement of subsequent fill.

9.5 Materials for Fill

9.5.1 On-site soils are suitable for use as general Engineered Fill provided they do not contain deleterious matter, organic material, or rock/cemented hardpan fragments material larger than 3 inches in maximum dimension.

9.5.2 Imported Engineered Fill soil, should be well-graded, very low-to-non-expansive slightly cohesive silty sand or sandy silt. This material should be approved by the Engineer prior to use and should typically possess the soil characteristics summarized below in Table 9.5.2.

TABLE 9.5.2
IMPORT FILL REQUIREMENTS

Percent Passing 3-inch Sieve	100
Percent Passing No.4 Sieve	75-100
Percent Passing No 200 Sieve	15-40
Maximum Plasticity Index	15

Maximum Organic Content	3% by Weight
Maximum Expansion Index (ASTM D4829)	20

Prior to importing the Contractor should demonstrate to the Owner that the proposed import meets the requirements for import fill specified in this report. In addition, the material should be verified by the Contractor that the soils do not contain any environmental contaminates as regulated by local, state, or federal agencies, as applicable

9.5.3 All Engineered Fill (including scarified ground surfaces and backfill) should be placed in lifts no thicker than will allow for adequate bonding and compaction (typically 6 to 8 inches in loose thickness). In the event that the Contractor is unable to achieve minimum required compaction, a lesser loose lift thickness should be considered.

9.5.4 On-Site soils used as engineered fill soils should moisture conditioned to slightly above optimum moisture content, and compacted to at least 92 percent relative compaction.

9.5.5 Import Engineered Fill, if selected, should be placed, moisture conditioned to slightly above optimum moisture content, and compacted to at least 92 percent relative compaction.

9.5.6 The preferred materials specified for Engineered Fill are suitable for most applications with the exception of exposure to erosion. Project site winterization and protection of exposed soils during the construction phase should be the sole responsibility of the Contractor, since they have complete control of the project site.

9.5.7 Environmental characteristics and corrosion potential of import soil materials should also be considered.

9.5.8 Proposed import materials should be sampled, tested, and approved by SALEM prior to its transportation to the site.

9.5.9 Aggregate base material should meet the requirements of a Caltrans Class 2 Aggregate Base. The aggregate base material should conform to the requirements of Section 26 of the Standard Specifications for Class 2 material, ¾-inch or 1½-inches maximum size. The aggregate base material should be compacted to a minimum relative compaction of 95 percent based ASTM D1557. The aggregate base material should be spread in layers not exceeding 6 inches and each layer of aggregate material course should be tested and approved by the Soils Engineer prior to the placement of successive layers

9.6 Seismic Design Criteria

9.6.1 For seismic design of the structures, and in accordance with the seismic provisions of the 2019 CBC, our recommended parameters are shown below. These parameters were determined using California's Office of Statewide Health Planning and Development (OSHPD) (https://seismicmaps.org/) in accordance with the 2019 CBC. The Site Class was determined based on the soils encountered during our field exploration.

TABLE 9.6.1
2019 CBC SEISMIC DESIGN PARAMETERS

Seismic Item	Symbol	Value	2016 ASCE 7 or 2019 CBC Reference
Site Coordinates (Datum = NAD 83)		36.5639 Lat -119.6274 Lon	
Site Class	--	D	ASCE 7 Table 20.3
Soil Profile Name	--	Stiff Soil	ASCE 7 Table 20.3
Risk Category	--	II	CBC Table 1604.5
Site Coefficient for PGA	F_{PGA}	1.338	ASCE 7 Table 11.8-1
Peak Ground Acceleration (adjusted for Site Class effects)	PGA_M	0.350 g	ASCE 7 Equation 11.8-1
Seismic Design Category	SDC	D	ASCE 7 Table 11.6-1 & 2
Mapped Spectral Acceleration (Short period - 0.2 sec)	S_S	0.604 g	CBC Figure 1613.3.1(1-8)
Mapped Spectral Acceleration (1.0 sec. period)	S_1	0.232 g	CBC Figure 1613.3.1(1-8)
Site Class Modified Site Coefficient	F_a	1.317	CBC Table 1613.2.3(1)
Site Class Modified Site Coefficient	F_v	**2.136 ***	CBC Table 1613.2.3(2)
MCE Spectral Response Acceleration (Short period - 0.2 sec) $S_{MS} = F_a S_S$	S_{MS}	0.795 g	CBC Equation 16-36
MCE Spectral Response Acceleration (1.0 sec. period) $S_{M1} = F_v S_1$	S_{M1}	**0.496 g***	CBC Equation 16-37
Design Spectral Response Acceleration $S_{DS}=\frac{2}{3}S_{MS}$ (short period - 0.2 sec)	S_{DS}	0.530g	CBC Equation 16-38
Design Spectral Response Acceleration $S_{D1}=\frac{2}{3}S_{M1}$ (1.0 sec. period)	S_{D1}	**0.330g***	CBC Equation 16-39
Short Period Transition Period (S_{D1}/S_{DS}), Seconds	T_S	**0.623***	ASCE 7-16, Section 11.4.6
Long Period Transition period (seconds)	T_L	12	ASCE 7-16, Figures 22-14 through 22-17

Note: *** Determined per ASCE Table 11.4.-2 for use in calculating T_S only**

Site Specific Ground Motion Analysis was not included in the scope of this investigation. Per ASCE 11.4.8 Structures on Site Class D, with S_1 greater than or equal to 0.2 may require Site Specific Ground Motion Analysis. However, a site specific ground motion analysis may not be required based on Exceptions listed in ASCE 11.4.8 The Structural Engineer should verify whether Exception No. 2 of ASCE 7-16, Section 114.8 is valid for the proposed construction. In the event a site specific ground motion analysis is required, SALEM should be contacted for these services.

9.6.2 Conformance to the criteria in the above table for seismic design does not constitute any kind of guarantee or assurance that significant structural damage or ground failure will not occur if a large earthquake occurs. The primary goal of seismic design is to protect life, not to avoid all damage, since such design may be economically prohibitive.

9.7 Shallow Foundations

9.7.1 The site is suitable for use of conventional shallow foundations consisting of continuous footings and isolated pad footings supported on engineered fill soils prepared in accordance with Section 9.3 of this report. Shallow foundations supported on engineered fill as recommended in this report may be designed based on total and differential static settlement of 1 inch and ½ inch in 40 feet, respectively.

9.7.2 The structural engineer should determine the width and depth of foundations for the proposed structure. At a minimum, the bearing wall footings considered for the two story structures should be continuous with a minimum width of 15 inches and extend to minimum depths of 18 inches below the lowest adjacent grade. Isolated column footings should have a minimum width of 18 inches and extend a minimum depth of 18 inches below the lowest adjacent grade.

9.7.3 Lightly loaded foundations for screen walls, retaining walls, etc., should have a minimum width of 12 inches and minimum depth of 12 inches below adjacent grade.

9.7.4 Footing concrete should be placed into neat excavation. The footing bottoms should be maintained free of loose and disturbed soil.

9.7.5 Shallow foundations supported on engineered fill as recommended in this report may be designed based on an allowable bearing capacity of 2,500 pounds per square foot (dead plus live loads). This value may be increased by 1/3 for wind and seismic loadings. The weight of the concrete footing and soil backfill above the foundation may be neglected in the design.

9.7.6 Resistance to lateral footing displacement can be computed using an allowable coefficient of friction factor of 0.35 acting between the base of foundations and the supporting engineered fills.

9.7.7 Lateral resistance for footings can alternatively be developed using an allowable equivalent fluid passive pressure of 300 pounds per cubic foot acting against the appropriate vertical native footing faces. The frictional and passive resistance of the soil may be combined without reduction in determining the total lateral resistance. An increase of one-third is permitted when using the alternate load combination in Section 1605.3.2 of the 2019 CBC that includes wind or earthquake loads.

9.7.8 Underground utilities running parallel to footings should not be constructed in the zone of influence of footings. The zone of influence may be taken to be the area beneath the footing and within a 1:1 plane extending out and down from the bottom edge of the footing.

9.7.9 The foundation subgrade should be sprinkled as necessary to maintain a moist condition without significant shrinkage cracks as would be expected in any concrete placement. Prior to placing rebar reinforcement, foundation excavations should be evaluated by a representative of SALEM for appropriate support characteristics and moisture content. Moisture conditioning may be required for the materials exposed at footing bottom, particularly if foundation excavations are left open for an extended period.

9.8 Interior Concrete Slabs-on-Grade

9.8.1 Slab thickness and reinforcement should be determined by the structural engineer based on the anticipated loading. We recommend that non-structural slabs-on-grade be at least 5 inches thick underlain by minimum four (4) inches of class 2 aggregate base supported on engineered fill soils prepared in accordance with the recommendations in section 9.3 of this report extending to the depth recommended below foundations.

If desired, the Owner may elect to allow the use of a sand blotter material over the recommended vapor barrier. Based on our experience, a sand blotter material will increase the risk for uneven slab pours and future distress to interior floor slabs.

9.8.2 We recommend reinforcing slabs, at a minimum, with No. 4 reinforcing bars placed 18 inches on center, each way. As an alternative, the use of welded wire or fiber mesh reinforcement may be considered by the Structural Engineer.

9.8.3 The spacing of crack control joints should be designed by the project structural engineer. In order to regulate cracking of the slabs, we recommend that full depth construction joints or control joints be provided at a maximum spacing of 15 feet in each direction for 5-inch thick slabs and 12 feet for 6-inch thick slabs.

9.8.4 Crack control joints should extend a minimum depth of one-fourth the slab thickness and should be constructed using saw-cuts or other methods as soon as practical after concrete placement. The exterior floors should be poured separately in order to act independently of the walls and foundation system.

9.8.5 It is recommended that the utility trenches within the structure be compacted, as specified in our report, to minimize the transmission of moisture through the utility trench backfill. Special attention to the immediate drainage and irrigation around the structures is recommended.

9.8.6 Moisture within the structure may be derived from water vapors, which were transformed from the moisture within the soils. This moisture vapor penetration can affect floor coverings and produce mold and mildew in the structure. To minimize moisture vapor intrusion, it is recommended that a vapor retarder be installed in accordance with manufacturer's recommendations and/or ASTM guidelines, whichever is more stringent. In addition, ventilation of the structure is recommended to reduce the accumulation of interior moisture.

9.8.7 In areas where it is desired to reduce floor dampness where moisture-sensitive coverings, coatings, underlayments, adhesives, moisture sensitive goods, humidity controlled environments, or climate cooled environments are anticipated, construction should have a suitable waterproof vapor retarder (a minimum of 15 mils thick, is recommended, polyethylene vapor retarder sheeting, Raven Industries "VaporBlock 15, Stego Industries 10 mil "StegoWrap" or W.R. Meadows Sealtight 15 mil "Perminator") incorporated into the floor slab design. The water vapor retarder should be a decay resistant material complying with ASTM E96 or ASTM E1249 not exceeding 0.01 perms, ASTM E154 and ASTM E1745 Class A. The vapor retarder should, maintain the recommended permeance **after** conditioning tests per ASTM E1745. The vapor barrier should be placed between the concrete slab and the compacted granular aggregate subbase material. The water vapor retarder (vapor barrier) should be installed in accordance with ASTM Specification E 1643-18.

9.8.8 The concrete may be placed directly on vapor retarder. The vapor retarder should be inspected prior to concrete placement. Cut or punctured retarder should be repaired using vapor retarder material

lapped 6 inches beyond damaged areas and taped. Extend vapor retarder over footings and seal to foundation wall or slab at an elevation consistent with the top of the slab or terminate at impediments such as water stops or dowels. Seal around penetrations such as utilities or columns in order to create a monolithic membrane between the surface of the slab and moisture sources below the slab as well as at the slab perimeter.

9.8.9 Avoid use of stakes driven through the vapor retarder.

9.8.10 The recommendations of this report are intended to reduce the potential for cracking of slabs due to soil movement. However, even with the incorporation of the recommendations presented herein, foundations, stucco walls, and slabs-on-grade may exhibit some cracking due to soil movement. This is common for project areas that contain expansive or loose soils since designing to eliminate potential soil movement is cost prohibitive. The occurrence of concrete shrinkage cracks is independent of the supporting soil characteristics. Their occurrence may be reduced and/or controlled by limiting the slump of the concrete, proper concrete placement and curing, and by the placement of crack control joints at periodic intervals, in particular, where re-entrant slab corners occur.

9.8.11 Proper finishing and curing should be performed in accordance with the latest guidelines provided by the American Concrete Institute, Portland Cement Association, and ASTM.

9.9 Exterior Concrete Slabs on Grade

9.9.1 The following recommendations are intended for lightly loaded exterior slabs on grade not subject to vehicular traffic. Slab thickness and reinforcement should be determined by the structural engineer based on the anticipated loading.

We recommend that non-structural slabs-on-grade be at least 4 inches thick and underlain by four (4) inches of class 2 aggregate base over subgrade soils prepared in accordance with the recommendations in section 9.3 of this report. However, if the owner is willing to assume risk for disturbance to subgrade soils during grading, the use of class 2 aggregate base below exterior slabs may be omitted.

9.9.2 The spacing of crack control joints should be designed by the project structural engineer. In order to regulate cracking of the slabs, we recommend that full depth construction joints or control joints be provided at a maximum spacing of 15 feet in each direction for 5-inch thick slabs and 12 feet for 6-inch thick slabs.

9.9.3 Crack control joints should extend a minimum depth of one-fourth the slab thickness and should be constructed using saw-cuts or other methods as soon as practical after concrete placement.

9.9.4 Proper finishing and curing should be performed in accordance with the latest guidelines provided by the American Concrete Institute, Portland Cement Association, and ASTM.

9.10 Pool Shell Design

9.10.1 The pool reinforcing should be designed by a structural engineer experienced in pool design. At a minimum, we recommended the pool shell include #4 reinforcement bar in both directions (horizontal and vertical) spaced at 12 inches on center. The final pool plans should be submitted to the Geotechnical Engineer for review when they become available. The following items may be used in the pool design.

9.10.2 At a minimum, pool wall foundations should be supported on engineered fill extending to depths of 12 inches below foundations or 24 inches below existing site grade, whichever is greater.

9.10.3 The pool wall foundations may be designed based on an allowable bearing capacity of 2,000 pounds per square foot. This value may be increased by 1/3 for wind and/or seismic conditions.

9.10.4 Pool wall foundations may consider an allowable coefficient of friction of 35 degrees and allowable passive pressure of 300 pounds per square foot. The upper 1 foot should be neglected in design.

9.10.5 The moisture content of the pool sidewalls should not be permitted to dry out. The subgrade soil within the outer 6 inches of the pool excavation should have a moisture content of at least 2 percent above optimum, immediately prior to placing gunite for the shell.

9.10.6 If possible, pool walls should be drained to prevent building up of hydrostatic pressures. Pool walls should be drained with a perforated pipe placed with perforations facing down at or below the elevation of the bottom of the pool shell. The pipe should be encased in free-draining gravel, or a prefabricated drainage system may be used. The gravel zone should have a minimum width of 12 inches wide and should extend upward to within 12 inches of the top of the pool wall. The upper 12 inches of backfill should consist of native soils, concrete, asphaltic-concrete or other suitable backfill to minimize surface drainage into the wall drain system. The gravel should conform to Class 2 permeable materials graded in accordance with the current CalTrans Standard Specifications.

9.10.7 Prefabricated drainage systems, such as Miradrain®, Enkadrain®, or an equivalent substitute, are acceptable alternatives in lieu of gravel provided they are installed in accordance with the manufacturer's recommendations. If a prefabricated drainage system is proposed, our firm should review the system for final acceptance prior to installation.

9.10.8 The top of the perforated pipe should be placed at or below the elevation of the bottom of the pool shell. The pipe should be placed in the center line of the drainage blanket and should have a minimum diameter of 4 inches. Slots should be no wider than 1/8-inch in diameter, while perforations should be no more than ¼-inch in diameter.

9.10.9 The perforated drainage pipe should be connected to a solid pipe and conveyed an appropriate outlet and discharged in a non-erosive manner away from foundations and other improvements.

9.10.10 During grading and backfilling operations adjacent to any walls, heavy equipment should not be allowed to operate within at least a lateral distance of 5 feet from the wall, or within a lateral distance equal to the wall height, whichever is greater, to avoid developing excessive lateral pressures. Within this zone, only hand operated equipment ("whackers," vibratory plates, or pneumatic compactors) should be used to compact the backfill soils.

9.10.11 Pool walls with drainage as indicated above may be designed for the drained earth pressures given in Table 9.12.1 (Column 2). In the event drainage is not designed and constructed behind the pool walls, pool walls without drainage may be designed for the undrained earth pressures given in Table 9.12.1 (Column 3). The appropriate earth pressure condition (active, at-rest, or braced) should be used for design (see Section 9.12.2).

9.10.12 The pool bottom shall be free of loose materials prior to placement of reinforcement and concrete.

9.10.13 Prior to placing rebar reinforcement, foundation excavations should be evaluated by a representative of SALEM for appropriate support characteristics and moisture content. Moisture conditioning may be required for the materials exposed at footing bottom, particularly if foundation excavations are left open for an extended period.

9.11 Pool Decking

9.11.1 Pool decking slabs shall be a minimum of 4 inches thick and supported by four (4) inches of Class 2 aggregate base compacted to 95 percent relative compaction over subgrade soils prepared in accordance with the recommendations included in this report.

9.11.2 Pool decking reinforcement should consist of #4 bars at a maximum of 16 inches on center in both directions. The reinforcement is based on engineering judgment and experience with soil conditions, not on any structural analysis.

9.11.3 The concrete deck should have a minimum slope of 2 percent away from the pool edge in all directions to a perimeter drain, further directing to a point of conveyance, preventing excess moisture from penetrating the subgrade soils. A liberal number of control joints should be incorporated into the pool deck. All joints should be filled with elastomeric sealant and should be examined regularly to ensure that no openings have developed.

9.11.4 Proper finishing and curing should be performed in accordance with the latest guidelines provided by the American Concrete Institute, Portland Cement Association, and ASTM.

9.12 Lateral Earth Pressures and Frictional Resistance

9.12.1 The earth pressures given in Table 9.12.1 may be used for design of retaining walls (including pool walls). The appropriate earth pressure condition (active, at-rest) should be used for design based on drained or undrained conditions.

TABLE 9.12.1
LATERAL EARTH PRESSURES FOR DRAINED AND UNDRAINED CONDITIONS - LEVEL BACKFILL

Column 1 Loading Condition	Column 2 Earth Pressure for Drained Condition	Column 3 Earth Pressure for Undrained Condition
Active Pressure (pcf)	35	81
At-Rest Pressure (pcf)	55	92
Allowable Passive Pressure (pcf)	300	300
Minimum Wet Unit Weight (pcf)	100	
Maximum Wet Unit Weight (pcf)	135	

9.12.2 The lateral earth pressure against the pool shell will be dependent upon the ability of the wall to deflect. The active pressure is applicable to walls able to rotate/translate 0.0005 radians at the top or bottom. The at-rest soil pressure is applicable to retaining structures that are fully fixed against both rotation and translation. Walls restrained from translation at the top and bottom, but able to deflect 0.0005 radian between restrained points, should be designed for the braced lateral pressure.

9.12.3 The top one-foot of adjacent subgrade should be deleted from the passive pressure computation.

9.12.4 The allowable parameters include a safety factor of 1.5 and can be used in design for direct comparison of resisting loads against lateral driving loads.

9.12.5 If combined passive and frictional resistance is used in design, a 50 percent reduction in frictional resistance is recommended.

9.12.6 For lateral stability against seismic loading conditions, we recommend a minimum safety factor of 1.1.

9.12.7 For dynamic seismic lateral loading the following equation shall be used:

Dynamic Seismic Lateral Loading Equation
Dynamic Seismic Lateral Load = $\frac{3}{8}\gamma K_h H^2$
Where: γ = Maximum In-Place Soil Density (135 pcf)
K_h = Horizontal Acceleration = $\frac{2}{3}PGA_M$ (Section 9.6.1 above)
H = Wall Height

9.13 Retaining Walls (Not Including Pool Walls-See Section 9.10)

9.13.1 Retaining walls should be designed using the geotechnical parameters in Section 9.12 and appropriate lateral loads due to any applicable surcharges. In the event proposed retaining walls exceed 5 feet of retained height, SALEM should be notified by the wall designer to review the wall plans prior to submittal for permit and/or construction bidding.

9.13.2 Retaining and/or below grade walls should be drained with either perforated pipe encased in free-draining gravel or a prefabricated drainage system. The gravel zone should have a minimum width of 12 inches wide and should extend upward to within 12 inches of the top of the wall. The upper 12 inches of backfill should consist of native soils, concrete, asphaltic-concrete or other suitable backfill to minimize surface drainage into the wall drain system. The gravel should conform to Class 2 permeable materials graded in accordance with the current Caltrans Standard Specifications.

9.13.3 Prefabricated drainage systems, such as Miradrain®, Enkadrain®, or an equivalent substitute, are acceptable alternatives in lieu of gravel provided they are installed in accordance with the manufacturer's recommendations. If a prefabricated drainage system is proposed, our firm should review the system for final acceptance prior to installation.

9.13.4 Drainage pipes should be placed with perforations down and should discharge in a non-erosive manner away from foundations and other improvements.

9.13.5 The top of the perforated pipe should be placed at or below the bottom of the adjacent floor slab or pavements. The pipe should be placed in the center line of the drainage blanket and should have a minimum diameter of 4 inches. Slots should be no wider than 1/8-inch in diameter, while perforations should be no more than ¼-inch in diameter.

9.13.6 If retaining walls (does not include pool walls) are less than 5 feet in height, the perforated pipe may be omitted in lieu of weep holes on 4 feet maximum spacing. The weep holes should consist of 2-inch minimum diameter holes (concrete walls) or unmortared head joints (masonry walls) and placed no higher than 18 inches above the lowest adjacent grade. Two 8-inch square overlapping patches of geotextile fabric (conforming to the Caltrans Standard Specifications for "edge drains") should be affixed to the rear wall opening of each weep hole to retard soil piping.

9.13.7 During grading and backfilling operations adjacent to any walls, heavy equipment should not be allowed to operate within a lateral distance of 5 feet from the wall, or within a lateral distance equal to the wall height, whichever is greater, to avoid developing excessive lateral pressures. Within this zone, only hand operated equipment ("whackers," vibratory plates, or pneumatic compactors) should be used to compact the backfill soils.

9.14 Temporary Excavations

9.14.1 We anticipate that the majority of the dense site soils will be classified as Cal-OSHA “Type C” soil when encountered in excavations during site development and construction. Excavation sloping, benching, the use of trench shields, and the placement of trench spoils should conform to the latest applicable Cal-OSHA standards. The contractor should have a Cal-OSHA-approved “competent person” onsite during excavation to evaluate trench conditions and make appropriate recommendations where necessary.

9.14.2 It is the contractor’s responsibility to provide sufficient and safe excavation support as well as protecting nearby utilities, structures, and other improvements which may be damaged by earth movements. All onsite excavations must be conducted in such a manner that potential surcharges from existing structures, construction equipment, and vehicle loads are resisted. The surcharge area may be defined by a 1:1 projection down and away from the bottom of an existing foundation or vehicle load.

9.14.3 Temporary excavations and slope faces should be protected from rainfall and erosion. Surface runoff should be directed away from excavations and slopes.

9.14.4 Open, unbraced excavations in undisturbed soils should be made according to the slopes presented in the following table:

RECOMMENDED EXCAVATION SLOPES

Depth of Excavation (ft)	Slope (Horizontal : Vertical)
0-5	1:1
5-10	1½:1
10-15	2:1

9.14.5 If, due to space limitation, excavations near existing structures are performed in a vertical position, braced shorings or shields may be used for supporting vertical excavations. Therefore, in order to comply with the local and state safety regulations, a properly designed and installed shoring system would be required to accomplish planned excavations and installation. A Specialty Shoring Contractor should be responsible for the design and installation of such a shoring system during construction.

9.14.6 Braced shorings should be designed for a maximum pressure distribution of 25H, (where H is the depth of the excavation in feet). The foregoing does not include excess hydrostatic pressure or surcharge loading. Fifty percent of any surcharge load, such as construction equipment weight, should be added to the lateral load given herein. Equipment traffic should concurrently be limited to an area at least 3 feet from the shoring face or edge of the slope.

9.14.7 The excavation and shoring recommendations provided herein are based on soil characteristics derived from the borings within the area. Variations in soil conditions will likely be encountered during the excavations. SALEM Engineering Group, Inc. should be afforded the opportunity to provide field review to evaluate the actual conditions and account for field condition variations not otherwise anticipated in the preparation of this recommendation. Slope height, slope inclination, or excavation depth should in no case exceed those specified in local, state, or federal safety regulation, (e.g. OSHA) standards for excavations, 29 CFR part 1926, or Assessor's regulations.

9.15 Underground Utilities

9.15.1 Underground utility trenches should be backfilled with properly compacted material. The material excavated from the trenches should be adequate for use as backfill provided it does not contain deleterious matter, vegetation or rock larger than 3 inches in maximum dimension. Trench backfill should be placed in loose lifts not exceeding 8 inches and compacted to at least 90 percent relative compaction at or above optimum moisture content.

9.15.2 Bedding and pipe zone backfill typically extends from the bottom of the trench excavations to approximately 12 inches above the crown of the pipe. Pipe bedding, haunches and initial fill extending to 1 foot above the pipe should consist of a clean well graded sand with 100 percent passing the #4 sieve, a maximum of 15 percent passing the #200 sieve, and a minimum sand equivalent of 20.

9.15.3 It is suggested that underground utilities crossing beneath new or existing structures be plugged at entry and exit locations to the building or structure to prevent water migration. Trench plugs can consist of on-site clay soils, if available, or sand cement slurry. The trench plugs should extend 2 feet beyond each side of individual perimeter foundations.

9.15.4 The contractor is responsible for removing all water-sensitive soils from the trench regardless of the backfill location and compaction requirements. The contractor should use appropriate equipment and methods to avoid damage to the utilities and/or structures during fill placement and compaction.

9.16 Pavement Design

9.16.1 R-Value testing was performed on samples obtained from the site at the locations shown on the attached site plan. The samples were tested in accordance with the State of California Materials Manual Test Designation 301. Based on the results of the R-value tests performed and the

requirements set forth in the Caltrans Highway Design manual, pavement thickness recommendations have been prepared based on a design R-Value of 50.

9.16.2 The pavement design recommendations provided herein are based on the State of California Department of Transportation (CALTRANS) design manual. The asphaltic concrete (flexible pavement) is based on a 20-year pavement life utilizing traffic indexes ranging from 4.0 to 7.0. The following table shows the recommended pavement sections for various traffic indices.

TABLE 9.16.2
ASPHALT CONCRETE PAVEMENT THICKNESSES

Traffic Index	Asphaltic Concrete, (inches)	Class 2 Aggregate Base, (inches)*	Compacted Subgrade, (inches)*
4.0	2.5	4.0	12.0
5.0	2.5	4.0	12.0
6.0	3.0	4.0	12.0
7.0	4.0	4.5	12.0

9.16.3 The following recommendations are for Portland Cement Concrete pavement sections utilizing traffic indexes ranging from 4.0 to 7.0.

TABLE 9.16.3
PORTLAND CEMENT CONCRETE PAVEMENT THICKNESSES

Traffic Index	Portland Cement Concrete, (inches)*	Class 2 Aggregate Base, (inches)**	Compacted Subgrade. (inches)**
4.0	5.0	4.0	12.0
5.0	5.5	4.0	12.0
6.0	6.0	4.0	12.0
7.0	6.5	4.0	12.0

**** Minimum Compressive Strength of 4,000 psi***

9.16.4 Asphalt concrete should conform to Section 39 of Caltrans' latest Standard Specifications for ½ inch Hot Mix Asphalt (HMA) Type A or B. Asphaltic concrete pavement should be placed and compacted in accordance with Caltrans Standard Specifications.

9.16.5 Excavations, depressions, or soft and pliant areas extending below planned finished subgrade levels should be cleaned to firm, undisturbed soil and backfilled with Engineered Fill. Any buried structures encountered during construction should be properly removed and backfilled.

9.16.6 Buried structures encountered during construction should be properly removed/rerouted and the resulting excavations backfilled. It is suspected that demolition activities of the existing pavement will disturb the upper soils. After demolition activities, it is recommended that disturbed soils within pavement areas be removed and/or compacted as engineered fill.

9.16.7 An integral part of satisfactory fill placement is the stability of the placed lift of soil. Prior to placement of aggregate base, the subgrade soils should be proof-rolled by a loaded water truck (or

equivalent) to verify no deflections of greater than ½ inch occur. If placed materials exhibit excessive instability as determined by a SALEM field representative, the lift will be considered unacceptable and shall be remedied prior to placement of additional fill material. Additional lifts should not be placed if the previous lift did not meet the required dry density or if soil conditions are not stable.

9.16.8 A representative of our firm should be present during all site clearing and grading operations to test and observe earthwork construction. This testing and observation is an integral part of our service as acceptance of earthwork construction is dependent upon compaction of the material and the stability of the material

10. PLAN REVIEW, CONSTRUCTION OBSERVATION AND TESTING

10.1 Plan and Specification Review

10.1.1 SALEM should review the project plans and specifications prior to final design submittal to assess whether our recommendations have been properly implemented and evaluate if additional analysis and/or recommendations are required.

10.2 Construction Observation and Testing Services

10.2.1 The recommendations provided in this report are based on the assumption that we will continue as Geotechnical Engineer of Record throughout the construction phase. It is important to maintain continuity of geotechnical interpretation and confirm that field conditions encountered are similar to those anticipated during design. If we are not retained for these services, we cannot assume any responsibility for others interpretation of our recommendations, and therefore the future performance of the project.

10.2.2 SALEM should be present at the site during site preparation to observe site clearing, preparation of exposed surfaces after clearing, and placement, treatment and compaction of fill material.

10.2.3 SALEM's observations should be supplemented with periodic compaction tests to establish substantial conformance with these recommendations. Moisture content of footings and slab subgrade should be tested immediately prior to concrete placement. SALEM should observe foundation excavations prior to placement of reinforcing steel or concrete to assess whether the actual bearing conditions are compatible with the conditions anticipated during the preparation of this report.

11. LIMITATIONS AND CHANGED CONDITIONS

The analyses and recommendations submitted in this report are based upon the data obtained from the test boring drilled at the approximate locations shown on the Site Plan, Figure 1. The report does not reflect variations which may occur between test boring locations explored. The nature and extent of such variations may not become evident until construction is initiated.

If variations then appear, a re-evaluation of the recommendations of this report will be necessary after performing on-site observations during the excavation period and noting the characteristics of such variations. The findings and recommendations presented in this report are valid as of the present and for the proposed construction. If site conditions change due to natural processes or human intervention on the property or adjacent to the site, or changes occur in the nature or design of the project, or if there is a substantial time

lapse between the submission of this report and the start of the work at the site, the conclusions and recommendations contained in our report will not be considered valid unless the changes are reviewed by SALEM and the conclusions of our report are modified or verified in writing. The validity of the recommendations contained in this report is also dependent upon an adequate testing and observations program during the construction phase. Our firm assumes no responsibility for construction compliance with the design concepts or recommendations unless we have been retained to perform the on-site testing and review during construction. SALEM has prepared this report for the exclusive use of the owner and project design consultants.

SALEM does not practice in the field of corrosion engineering. It is recommended that a qualified corrosion engineer be consulted regarding protection of buried steel or ductile iron piping and conduit or, at a minimum, that manufacturer's recommendations for corrosion protection be closely followed. Further, a corrosion engineer may be needed to incorporate the necessary precautions to avoid premature corrosion of concrete slabs and foundations in direct contact with native soil. The importation of soil and or aggregate materials to the site should be screened to determine the potential for corrosion to concrete and buried metal piping. The report has been prepared in accordance with generally accepted geotechnical engineering practices in the area. No other warranties, either express or implied, are made as to the professional advice provided under the terms of our agreement and included in this report.

If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (559) 271-9700.

Respectfully Submitted,

SALEM ENGINEERING GROUP, INC.

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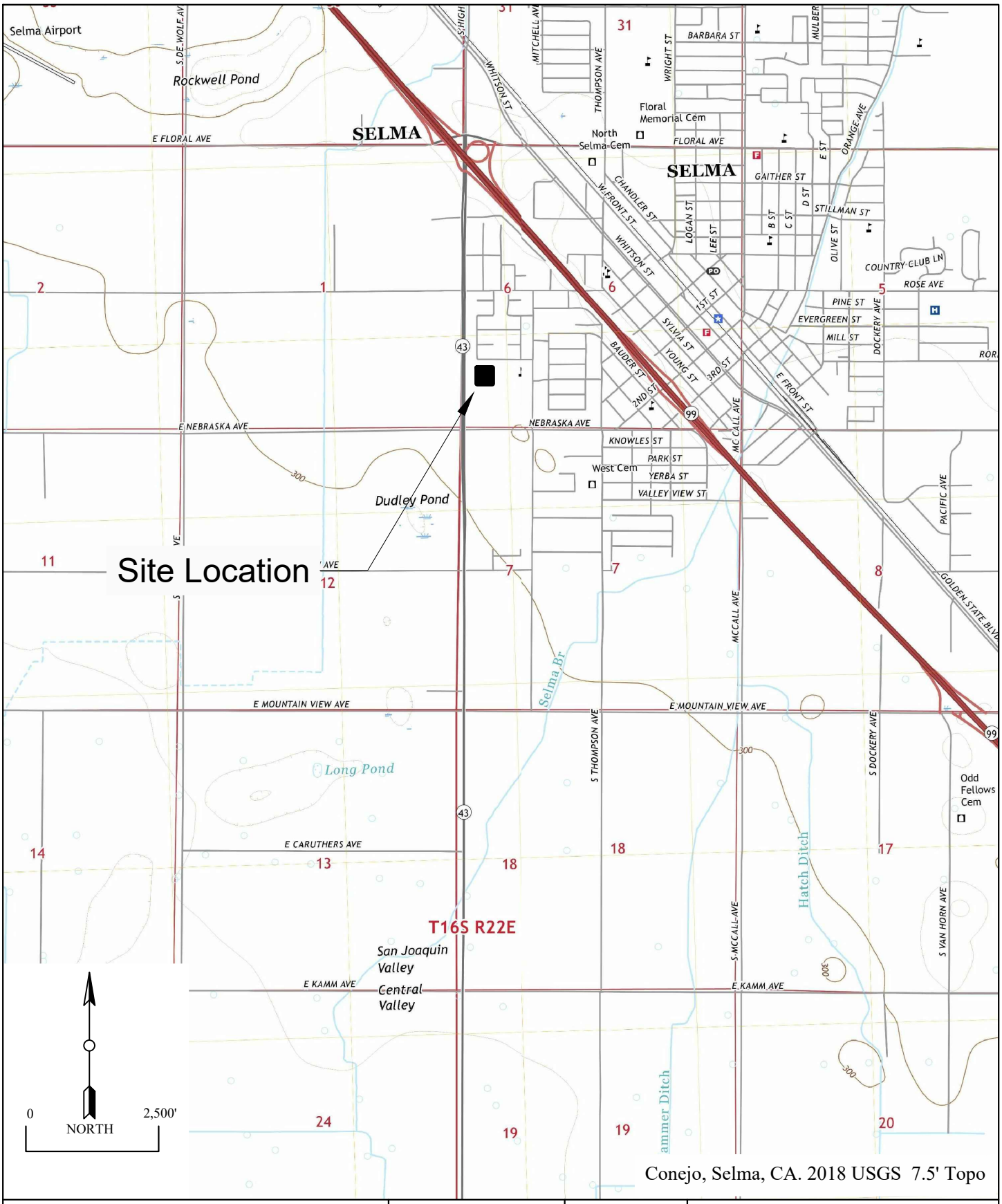
EXP. 12-31-2022
GEOTECHNICAL
STATE OF CALIFORNIA



Conejo, Selma, CA. 2018 USGS 7.5' Topo

VICINITY MAP	SCALE: 1 : 2500'	DATE: June 2022	SALEM engineering group, inc.
PROPOSED MULTI-FAMILY HOUSING PROJECT LOT NEAR NEC of HIGHLAND AVENUE & NEBRASKA AVENUE SELMA, CALIFORNIA	DRAWN BY: VT	APPROVED BY: DL	
	PROJECT NO. 1-222-0679	FIGURE NO. 1	

SITE MAP	SCALE: 1 : 150'	DATE: June 2022	SALEM engineering group, inc.
PROPOSED MULTI-FAMILY HOUSING PROJECT LOT NEAR NEC of HIGHLAND AVENUE & NEBRASKA AVENUE SELMA, CALIFORNIA	DRAWN BY: VT	APPROVED BY: DL	
	PROJECT NO. 1-222-0679	FIGURE NO. 1	

APPENDIX

A

APPENDIX A

FIELD EXPLORATION

Fieldwork for our investigation was conducted on July 6, 2022 through July 7, 2022 and included a site visit, subsurface exploration, and soil sampling. The locations of the exploratory borings are shown on the Site Plan, Figure 2. Boring logs for our exploration are presented in figures following the text in this appendix. Borings were located in the field using existing reference points. Therefore, actual boring locations may deviate slightly.

Our borings were drilled using a truck-mounted CME-55 drilling rig and 6-inch diameter hollow stem auger. Sampling was accomplished by driving a 2-inch Standard Penetration Test (SPT) sampler and/or a 3-inch outside diameter Modified California Sampler (MCS) 18 inches into the soil. Penetration and/or Resistance tests were performed at selected depths. The resistance/N-Value obtained from driving was recorded based on the number of blows required to penetrate the last 12 inches. The driving energy was provided by an auto-trip hammer weighing 140 pounds, falling 30 inches. Relatively undisturbed MCS soil samples were obtained while performing this test. Bag samples of the disturbed soil were obtained from the SPT samples and auger cuttings. All samples were returned to our Fresno laboratory for evaluation. At the completion of drilling and sampling, the test borings were backfilled with cuttings, thus, some settlement should be anticipated.

Subsurface conditions encountered in the test borings were visually examined, classified and logged in general accordance with the American Society for Testing and Materials (ASTM) Practice for Description and Identification of Soils (Visual-Manual Procedure D2488). This system uses the Unified Soil Classification System (USCS) for soil designations. The logs depict soil and geologic conditions encountered and depths at which samples were obtained. The logs also include our interpretation of the conditions between sampling intervals. Therefore, the logs contain both observed and interpreted data. We determined the lines designating the interface between soil materials on the logs using visual observations, excavation characteristics and other factors. The transition between materials may be abrupt or gradual. Where applicable, the field logs were revised based on subsequent laboratory testing.

Test Boring: B-1 **Page** 1 **Of:** 2

Project Number: 1-222-0679

Date: 07/06/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

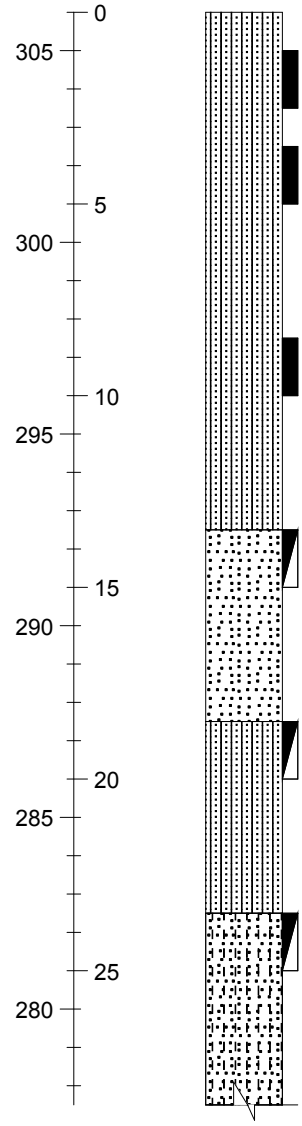
Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; loose to medium dense, light brown, dry, fine to medium grained.	23	1.2	112.9	
			Grades as above; medium dense.	26	1.2	115.4	
			Grades as above;	21	--	--	No recovery.
		SP	Poorly Graded SAND; loose, light brown, dry, fine to medium grained.	5	0.7	--	
		SM	Silty SAND; medium dense, brown, moist, fine to medium grained.	29	7.5	--	
		SP-SM	Poorly Graded SAND with Silt; medium dense, brown, moist, fine to medium grained.	16	2.2	--	

Notes:

Figure Number A-1

SALEM engineering group, inc.

Project Number: 1-222-0679
Date: 07/06/2022
Test Boring: B-1

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
30	6/6 5/6 8/6		Grades as above.	13	1.7	--	
			End of boring at 30ft. BSG				
275							
35							
270							
40							
265							
45							
260							
50							
255							
55							
250							
60							
245							

Notes:

Figure Number A-1

Test Boring: B-2 **Page** 1 **Of:** 1

Project Number: 1-222-0679

Date: 07/06/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

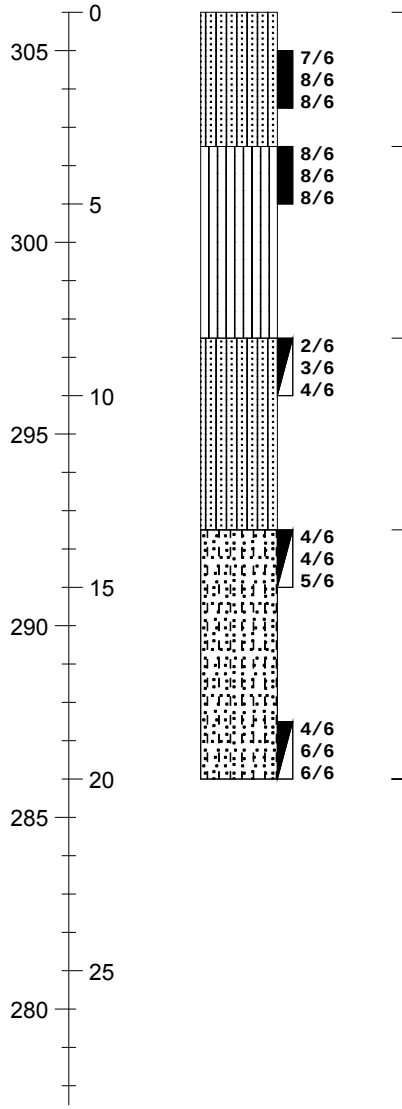
Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, light brown, dry, fine to medium grained.	16	0.9	112.8	
		ML	Sandy SILT; stiff, light brown, dry.	16	0.7	111.0	
		SM	Silty SAND; loose, light brown, dry, fine to medium grained.	7	0.9	--	
		SP-SM	Poorly Graded SAND with Silt; loose, light brown, dry, fine to medium grained.	9	1.0	--	
			Grades as above; medium dense, moist.	12	0.8	--	
			End of boring at 20ft. BSG				

Notes:

Figure Number A-2

Test Boring: B-3 **Page** 1 **Of:** 1

Project Number: 1-222-0679

Date: 07/06/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

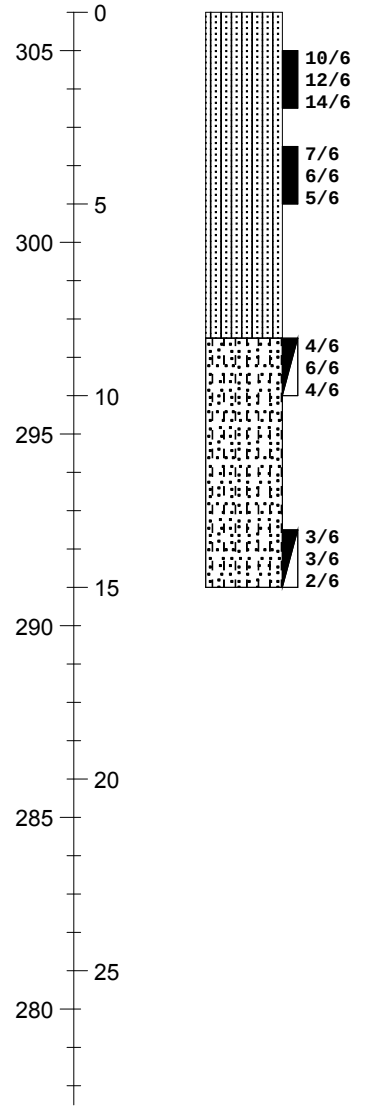
Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, light brown, dry, fine to medium grained.	26	--	--	
			Grades as above; loose.	11	1.2	110.3	
		SP-SM	Poorly Graded SAND with Silt; medium dense, light brown, dry, fine to medium grained.	10	--	--	
			Grades as above; loose.	5	--	--	
			End of boring at 15ft. BSG				

Notes:

Figure Number A-3

Test Boring: B-4 **Page** 1 **Of:** 2

Project Number: 1-222-0679

Date: 07/06/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

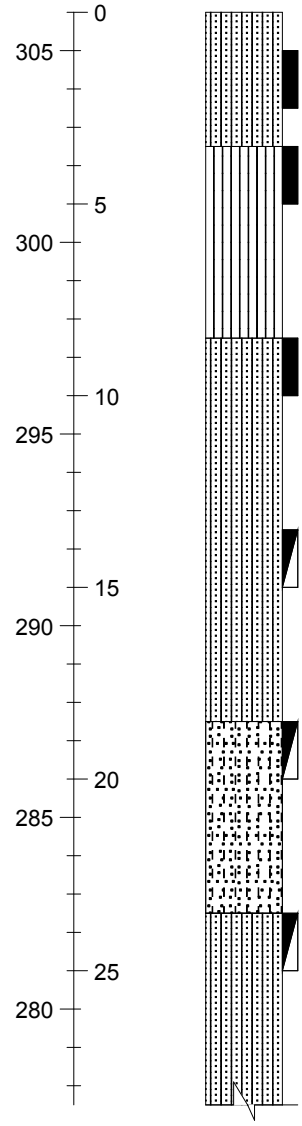
Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, light brown, dry, fine to medium grained.	24	1.1	113.1	
		ML	Sandy SILT; hard, light brown, dry, weak cementation.	49	2.2	113.5	
		SM	Silty SAND; medium dense, light brown, moist, fine to medium grained.	16	4.9	90.1	
			Grades as above; increase silt.	15	10.4	--	
		SP-SM	Poorly Graded SAND with Silt; medium dense, light brown, moist, fine to medium grained.	11	2.3	--	
		SM	Silty SAND; medium dense, brown, moist, fine to coarse grained.	18	7.3	--	

Notes:

Figure Number A-4

SALEM engineering group, inc.

Project Number: 1-222-0679
Date: 07/06/2022
Test Boring: B-4

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
30	15/6 11/6 8/6		Grades as above, fine to medium grained.	19	8.5	--	
			End of boring at 30ft. BSG				
275							
35							
270							
40							
265							
45							
260							
50							
255							
55							
250							
60							
245							

Notes:

Figure Number A-4

Test Boring: B-5 **Page** 1 **Of:** 1

Project Number: 1-222-0679

Date: 07/07/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
0		SM	Silty SAND; medium dense, light brown, dry, fine to medium grained.	14			
305	6/6 6/6 8/6						
5	8/6 7/6 7/6		Grades as above.	14			
300			End of boring at 6.5ft. BSG				
10							
295							
15							
290							
20							
285							
25							
280							

Notes:

Figure Number A-5

Test Boring: B-6 **Page** 1 **Of:** 1

Project Number: 1-222-0679

Date: 07/07/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
0	7/6 9/6 9/6	SM	Silty SAND; medium dense, light brown, dry, fine to medium grained.	18			
5	5/6 5/6 6/6	ML	Grades as above.	11			
			End of boring at 5ft. BSG				

305 300 295 290 285 280

10 15 20 25

Notes:

Figure Number A-6

Test Boring: B-7 **Page** 1 **Of:** 1

Project Number: 1-222-0679

Date: 07/06/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
0 / 305	5/6 5/6 7/6	SM	Silty SAND; medium dense, light brown, dry, fine to medium grained.	12	--	--	
	5/6 7/6 9/6		Grades as above; brown, moist.	16	1.6	110.0	
5 / 300	7/6 13/6 16/6		Grades as above; medium dense.	29	2.2	114.3	
10 / 295	3/6 3/6 4/6	SP-SM	Poorly Graded SAND with Silt; loose, light brown, dry, fine to medium grained.	7	--	--	
15 / 290	3/6 4/6 4/6		Grades as above.	8	--	--	
			End of boring at 16.5ft. BSG				
20 / 285							
25 / 280							

Notes:

Figure Number A-7

Test Boring: B-8 **Page** 1 **Of:** 1

SALEM engineering group, inc.

Project Number: 1-222-0679

Date: 07/06/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

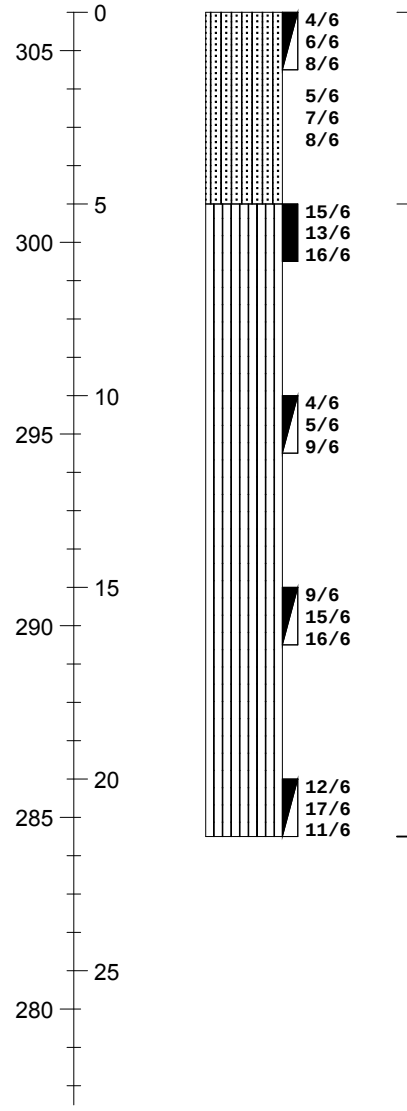
Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, light brown, dry, fine to medium grained.	14	--	--	
			Grades as above; loose.	15	1.2	110.3	
			Grades as above; fine grained.	29	1.2	108.3	
			Grades as above; fine to medium grained.	14	1.1	--	
			Grades as above; dense, increase silt.	31	2.8	--	
			Grades as above; medium dense.	28	5.3	--	
			End of boring at 21.5ft. BSG				

Notes:

Figure Number A-8

Test Boring: B-9 **Page** 1 **Of:** 1

SALEM engineering group, inc.

Project Number: 1-222-0679

Date: 07/06/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

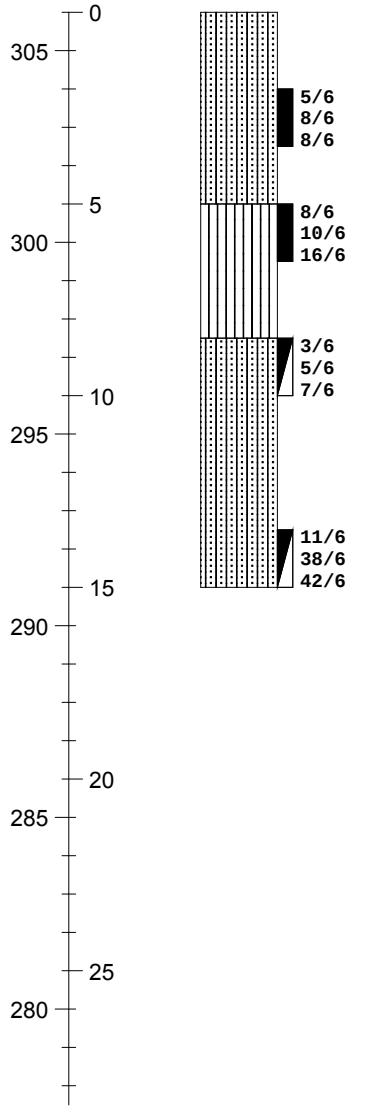
Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, light brown, dry, fine to medium grained.	16	1.4	112.1	
		ML	Sandy SILT; very stiff, light brown, dry.	26	1.7	111.6	
		SM	Silty SAND; medium dense, light brown, dry, fine to medium grained.	12	1.0	--	
			Grades as above; dense, brown, moist.	80	5.2	--	
			End of boring at 15ft. BSG				

Notes:

Figure Number A-9

Test Boring: B-10 **Page** 1 **Of:** 1

Project Number: 1-222-0679

Date: 07/06/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
0 / 305	2/6 7/6 8/6	SM	Silty SAND; medium dense, light brown, dry, fine to medium grained.	15	0.4	--	
	7/6 11/6 14/6		Grades as above; fine grained.	25			
5 / 300	5/6 10/6 15/6	ML/SM	Sandy SILT; very stiff, grey to brown, dry.	25			
10 / 295	4/6 5/6 6/6		Grades as above; stiff, light brown, dry.	11			
15 / 290	4/6 5/6 6/6		Grades as above; increase sand.	11			
20 / 285	7/6 6/6 6/6	SM	Silty SAND; medium dense, brown, moist, fine to medium grained.	12			
			End of boring at 21.5ft. BSG				
25 / 280							

Notes:

Figure Number A-10

Test Boring: B-11 **Page** 1 **Of:** 1

Project Number: 1-222-0679

Date: 07/06/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
305 / 0	3/6 6/6 6/6	SM	Silty SAND; medium dense, light brown, dry, fine to medium grained.	12	0.5	--	
	8/6 10/6 18/6	ML	SILT with Sand; very stiff, light brown, dry, fine grained.	28	4.5	104.1	
300 / 5	8/6 8/6 10/6		Grades as above.	18	1.5	98.0	
295 / 10	4/6 4/6 4/6	SP-SM	Poorly Graded SAND with Silt; loose, light brown, dry, fine to medium grained.	8	0.7	--	
290 / 15	5/6 8/6 9/6	SM	Silty SAND; medium dense, brown, moist, fine to medium grained.	17	1.9	--	
			End of boring at 15ft. BSG				

285 / 20

280 / 25

Notes:

Figure Number A-11

Test Boring: B-12 **Page** 1 **Of:** 1

Project Number: 1-222-0679

Date: 07/07/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
0							
305	4/6 4/6 8/6	SM	Silty SAND; medium dense, light brown, dry, fine to medium grained.	12			
	5/6 5/6 5/6		Grades as above.	10			
5			End of boring at 5ft. BSG				
300							
10							
295							
15							
290							
20							
285							
25							
280							

Notes:

Figure Number A-12

Test Boring: B-13 **Page** 1 **Of:** 1

Project Number: 1-222-0679

Date: 07/07/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

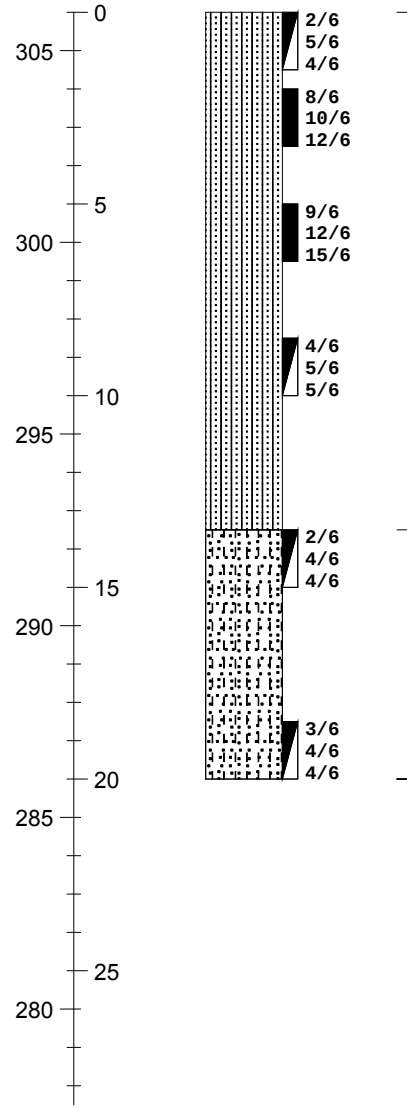
Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; loose, light brown, dry, fine to medium grained.	9	0.6	--	
			Grades as above; medium dense.	22	1.1	113.9	
			Grades as above;	27	1.1	115.8	
			Grades as above; loose.	10	1.2	--	
		SP-SM	Poorly Graded SAND with Silt; loose, light brown, dry, fine to medium grained.	8	0.9	--	
			Grades as above.	8	1.1	--	
			End of boring at 20ft. BSG				

Notes:

Figure Number A-13

Test Boring: B-14 **Page** 1 **Of:** 2

Project Number: 1-222-0679

Date: 07/06/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

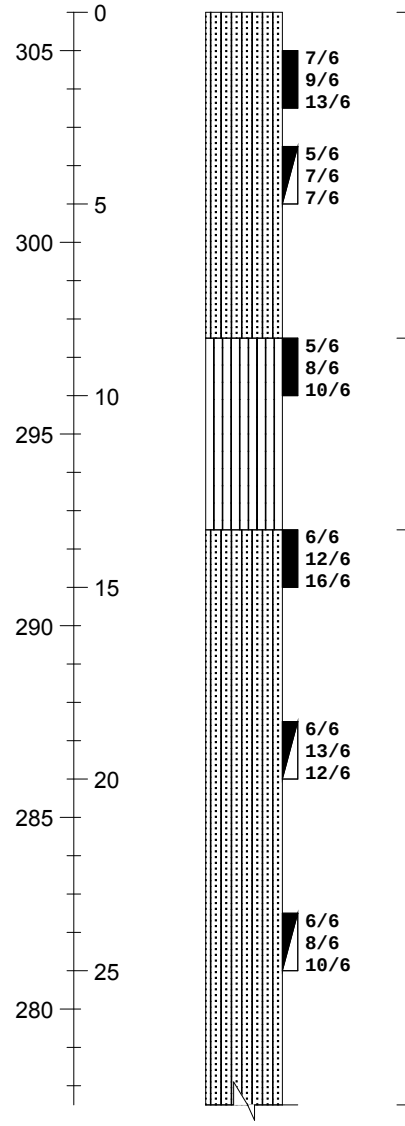
Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, light brown, dry, fine to medium grained.	22	1.0	116.7	
			Grades as above; increase silt.	14	1.1	--	
		ML	Sandy SILT; very stiff, light brown, dry.	18	1.6	98.4	
		SM	Silty SAND; medium dense, brown, moist, fine to medium grained.	28	2.6	113.5	
			Grades as above.	25	5.1	--	
			Grades as above.	18	5.3	--	

Notes:

Figure Number A-14

SALEM engineering group, inc.

Project Number: 1-222-0679
Date: 07/06/2022
Test Boring: B-14

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
30	5/6 8/6 9/6	SP-SM	Poorly Graded SAND with Silt; medium dense, light brown, dry, fine to medium grained.	17	1.6	--	
			End of boring at 30ft. BSG				

275 270 265 260 255 250 245

35 40 45 50 55 60

Notes:

Figure Number A-14

Test Boring: B-15 **Page** 1 **Of:** 1

Project Number: 1-222-0679

Date: 07/07/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
305 (0)	5/6 10/6 10/6	SM	Silty SAND; medium dense, light brown, dry, fine to medium grained.	20			
	7/6 7/6 9/6		Grades as above; fine grained.	16			
300 (5)			End of boring at 5ft. BSG				
295 (10)							
290 (15)							
285 (20)							
280 (25)							

Notes:

Figure Number A-15

Test Boring: B-16 **Page** 1 **Of:** 1

Project Number: 1-222-0679

Date: 07/06/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

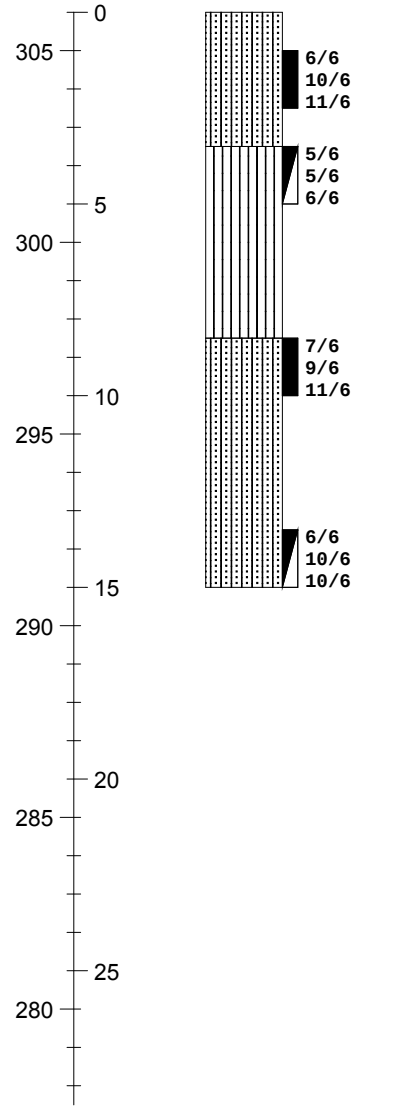
Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, light brown, dry, fine to medium grained.	21			
		ML	Sandy SILT; stiff, light brown, dry, fine grained sand.	11			
		SM	Silty SAND; medium dense, light brown, dry, fine to coarse grained.	20			
			Grades as above.	20			
			End of boring at 15ft. BSG				

Notes:

Figure Number A-16

Test Boring: B-17 **Page** 1 **Of:** 1

Project Number: 1-222-0679

Date: 07/07/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
0		ML/SM	Sandy SILT: very stiff, light brown, dry.	24			
305	6/6 9/6 15/6						
	3/6 5/6 8/6		Grades as above; stiff.	13			
5							
300							
	6/6 6/6 7/6	SM	Silty SAND; loose, light brown, dry, fine to medium grained.	13			
10							
295							
	26/6 50/5		Grades as above; very dense, brown, moist.	>50			
15			End of boring at 14.5ft. BSG				
290							
20							
285							
25							
280							

Notes:

Figure Number A-17

Test Boring: B-18 **Page** 1 **Of:** 1

Project Number: 1-222-0679

Date: 07/07/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

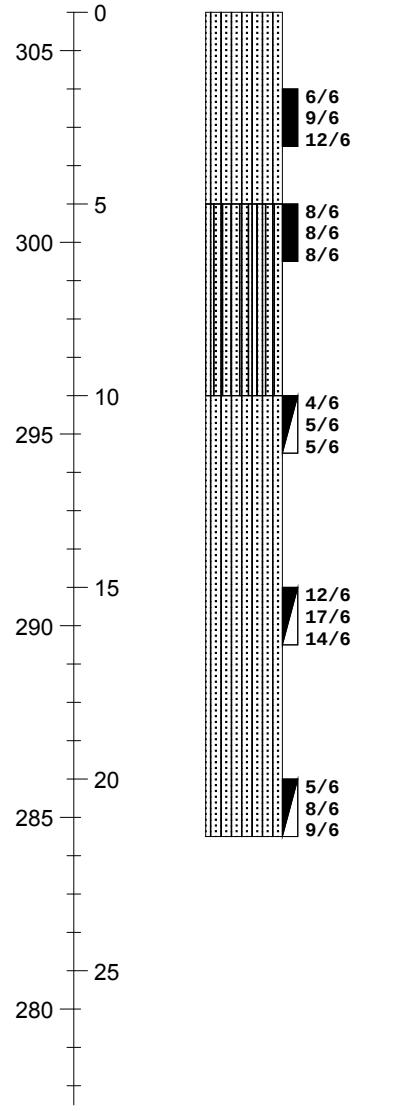
Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, light brown, dry, fine to medium grained.	21	1.4	113.4	
		ML/SM	Sandy SILT; stiff, light brown, dry.	16	1.4	111.0	
		SM	Silty SAND; medium dense, light brown, dry, fine to medium grained.	10	1.9	--	
			Grades as above; brown, moist.	31	8.0	--	
			Grades as above.	17	4.8	--	
			End of boring at 21.5ft. BSG				

Notes:

Figure Number A-18

Test Boring: B-19 **Page** 1 **Of:** 1

Project Number: 1-222-0679

Date: 07/07/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

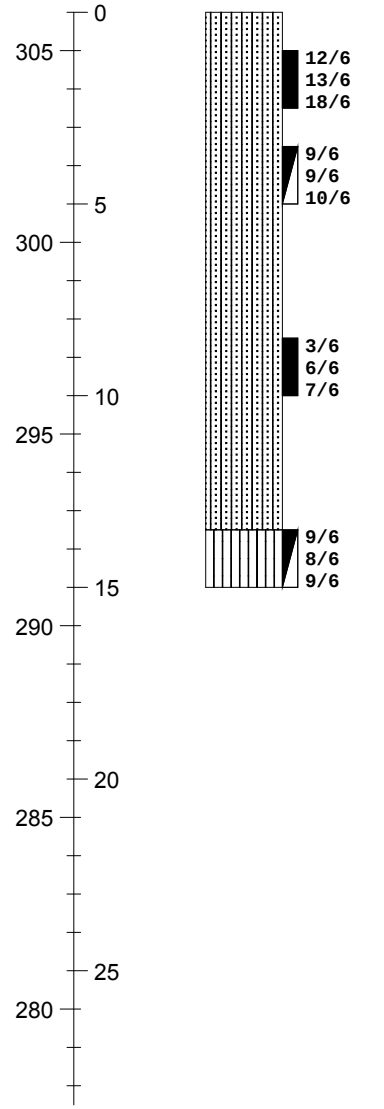
Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		SM	Silty SAND; medium dense, light brown, dry, fine to medium grained.	31			
			Grades as above.	19			
			Grades as above; loose.	13			
		ML	SILT with Sand; very stiff, light brown, moist, fine grained sand.	17			
			End of boring at 15ft. BSG				

Notes:

Figure Number A-19

Test Boring: B-20 **Page** 1 **Of:** 1

Project Number: 1-222-0679

Date: 07/07/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

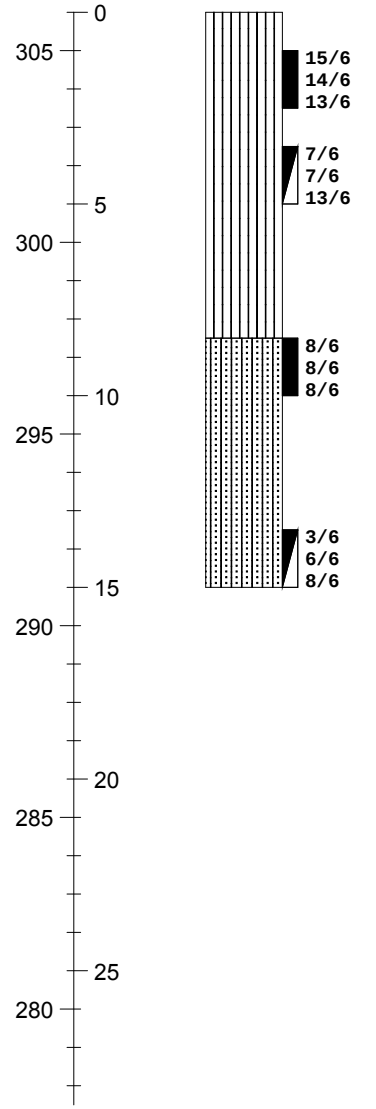
Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		ML	SILT with Sand; very stiff, light brown, dry, fine grained sand.	27	1.7	112.5	
			Grades as above; trace sand.	20	2.9	--	
		SM	Silty SAND; medium dense, light brown, dry, fine grained.	16	1.3	93.0	
			Grades as above; brown, moist.	14	10.2	--	
			End of boring at 15ft. BSG				

Notes:

Figure Number A-20

Test Boring: B-21 **Page** 1 **Of:** 1

Project Number: 1-222-0679

Date: 07/07/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

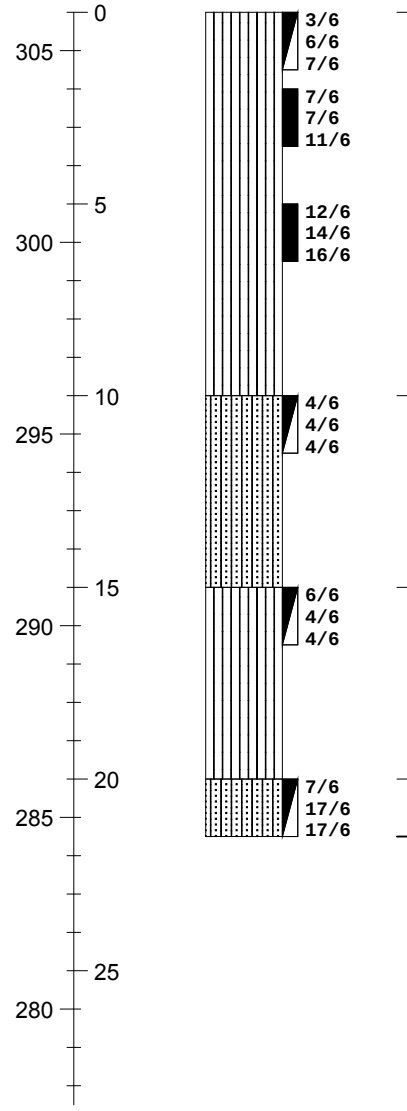
Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
0	3/6 6/6 7/6	ML	SILT; stiff, light brown, dry.	13	--	--	
	7/6 7/6 11/6		Grades as above; trace of fine sand.	18	2.1	104.2	
5	12/6 14/6 16/6		Grades as above.	30	1.9	102.8	
10	4/6 4/6 4/6	SM	Silty SAND; loose, light brown, dry, fine grained.	8	2.2	--	
15	6/6 4/6 4/6	ML	SILT with Sand; stiff, light brown, moist, fine grained sand.	8	8.8	--	
20	7/6 17/6 17/6	SM	Silty SAND; dense, brown, moist, fine to medium grained.	34	8.3	--	
			End of boring at 21.5ft. BSG				

Notes:

Figure Number A-21

Test Boring: B-22 **Page** 1 **Of:** 1

Project Number: 1-222-0679

Date: 07/07/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
0		ML/SM	Sandy SILT; very stiff, light brown, dry, fine to medium grained sand.	17	0.5	--	
305	8/6 8/6 9/6						
	5/6 5/6 4/6		Grades as above; stiff.	9	1.1	--	
5			End of boring at 5ft. BSG				
300							
10							
295							
15							
290							
20							
285							
25							
280							

Notes:

Figure Number A-22

Test Boring: B-23 **Page** 1 **Of:** 1

Project Number: 1-222-0679

Date: 07/07/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

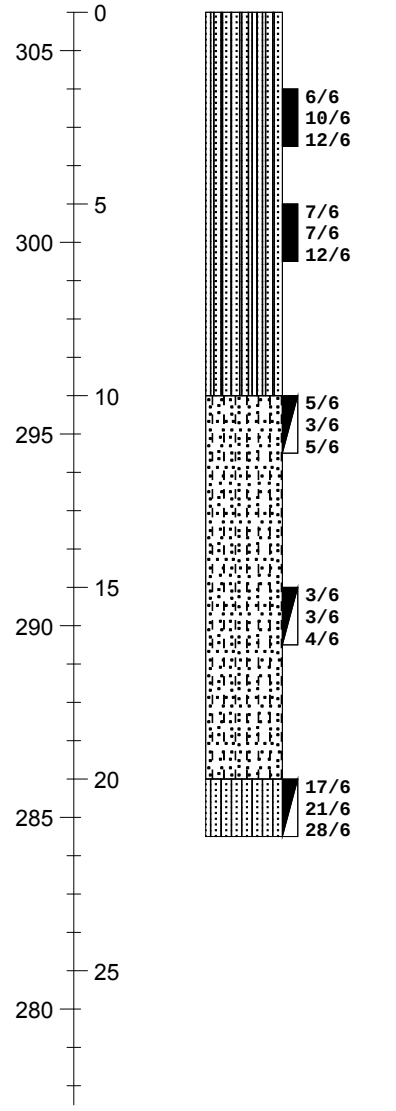
Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		ML/SM	Sandy SILT; very stiff, light brown, dry, fine grained sand.	22			
			Grades as above.	19			
		SP-SM	Poorly Graded SAND with Silt; loose, light brown, dry, fine to medium grained.	8			
			Grades as above.	7			
		SM	Silty SAND; dense, brown, moist, fine to medium grained.	49			
			End of boring at 21.5ft. BSG				

Notes:

Figure Number A-23

Test Boring: B-24 **Page** 1 **Of:** 1

SALEM engineering group, inc.

Project Number: 1-222-0679

Date: 07/07/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

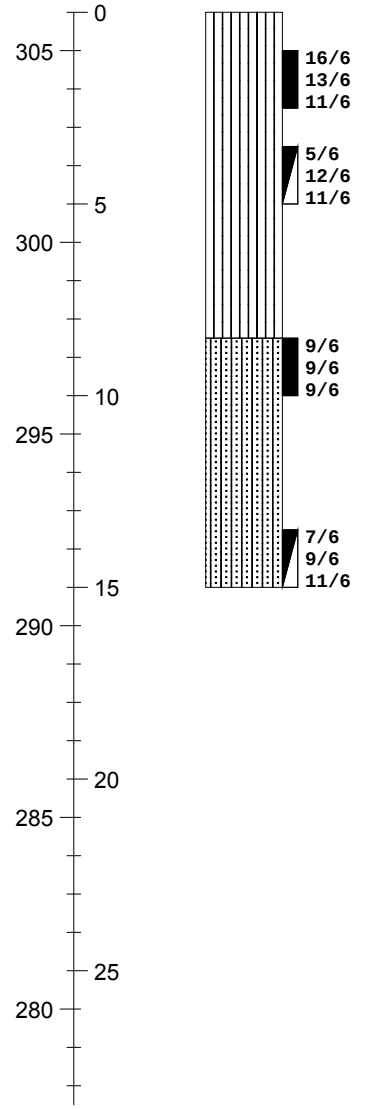
Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
		ML	Sandy SILT; very stiff, light brown, dry.	24			
			Grades as above; trace of sand.	23			
		SM	Silty SAND; medium dense, light brown, dry, fine to medium grained.	18			
			Grades as above; increase silt.	20			
			End of boring at 15ft. BSG				

Notes:

Figure Number A-24

Test Boring: B-25 **Page** 1 **Of:** 2

Project Number: 1-222-0679

Date: 07/07/2022

Client: Mr. Jatinder Singh

Project: Proposed Multi-Family Housing Project

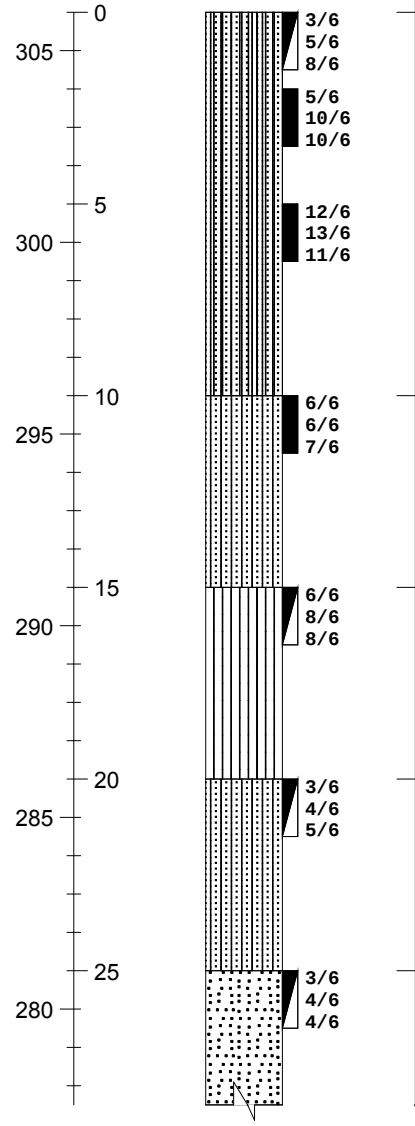
Location: Lot Near NEC of Highland Avenue & Nebraska Avenue, Selma, CA.

Drilled By: Salem Engineering Group, Inc. **Logged By:** BM

Drill Type: CME 55 **Elevation:** 306ft. AMSL

Auger Type: 6-5/8in. Hollow Stem Auger **Initial Depth to Groundwater:** N/E

Hammer Type: Automatic Trip - 140lbs./30in. **Final Depth to Groundwater:** N/E



ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
	3/6 5/6 8/6	ML/SM	Sandy SILT; stiff, light brown, dry, fine grained.	13	0.6	--	
	5/6 10/6 10/6		Grades as above; very stiff, decrease sand.	20	2.3	110.9	
	12/6 13/6 11/6		Grades as above.	24	2.4	94.1	
	6/6 6/6 7/6	SM	Silty SAND; loose, light brown, dry, fine grained.	13	3.0	110.9	
	6/6 8/6 8/6	ML	SILT with Sand; very stiff, brown, moist.	16	8.8	--	
	3/6 4/6 5/6	SM	Silty SAND; loose, light brown, moist, fine grained.	9	4.4	--	
	3/6 4/6 4/6	SP	Poorly Graded SAND; loose, light brown, moist, fine to medium grained.	8	1.9	--	

Notes:

Figure Number A-25

SALEM engineering group, inc.

Project Number: 1-222-0679
Date: 07/07/2022
Test Boring: B-25

ELEVATION/ DEPTH (feet)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	USCS	Soil Description	N-Values blows/ft.	Moisture Content %	Dry Density, PCF	Remarks
30 / 275	4/6 4/6 5/6		Grades as above.	9	1.9	--	
			End of boring at 31.5ft. BSG				
35 / 270							
40 / 265							
45 / 260							
50 / 255							
55 / 250							
60 / 245							

Notes:

Figure Number A-25

KEY TO SYMBOLS

Symbol Description

Strata symbols

Silty sand

Poorly graded sand

Poorly graded sand with silt

Silt

Elastic silt/ sand

Misc. Symbols

Boring continues

Soil Samplers

California sampler

Standard penetration test

Notes:

Granular Soils
Blows Per Foot (Uncorrected)

	MCS	SPT
Very loose	<5	<4
Loose	5-15	4-10
Medium dense	16-40	11-30
Dense	41-65	31-50
Very dense	>65	>50

Cohesive Soils
Blows Per Foot (Uncorrected)

	MCS	SPT
Very soft	<3	<2
Soft	3-5	2-4
Firm	6-10	5-8
Stiff	11-20	9-15
Very Stiff	21-40	16-30
Hard	>40	>30

MCS = Modified California Sampler
SPT = Standard Penetration Test Sampler

APPENDIX

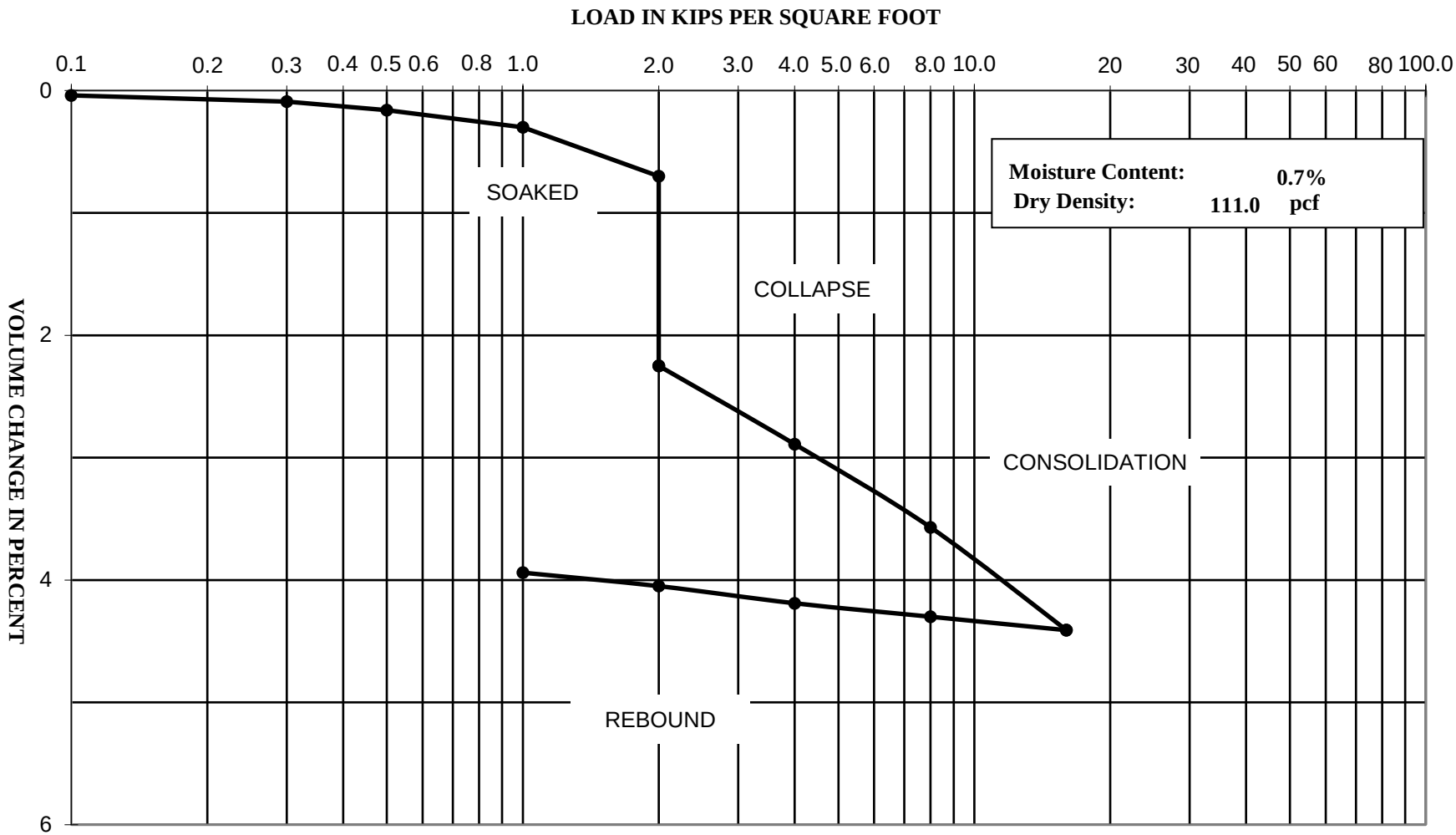
B

APPENDIX B

LABORATORY TESTING

Laboratory tests were performed in accordance with generally accepted test methods of the American Society for Testing and Materials (ASTM), Caltrans, or other suggested procedures. Selected samples were tested for in-situ dry density and moisture content, corrosivity, resistance value, consolidation, shear strength, grain size distribution, Atterberg Limit, and expansion index test. The results of the laboratory tests are summarized in the following figures.

CONSOLIDATION - PRESSURE TEST DATA
ASTM D2435



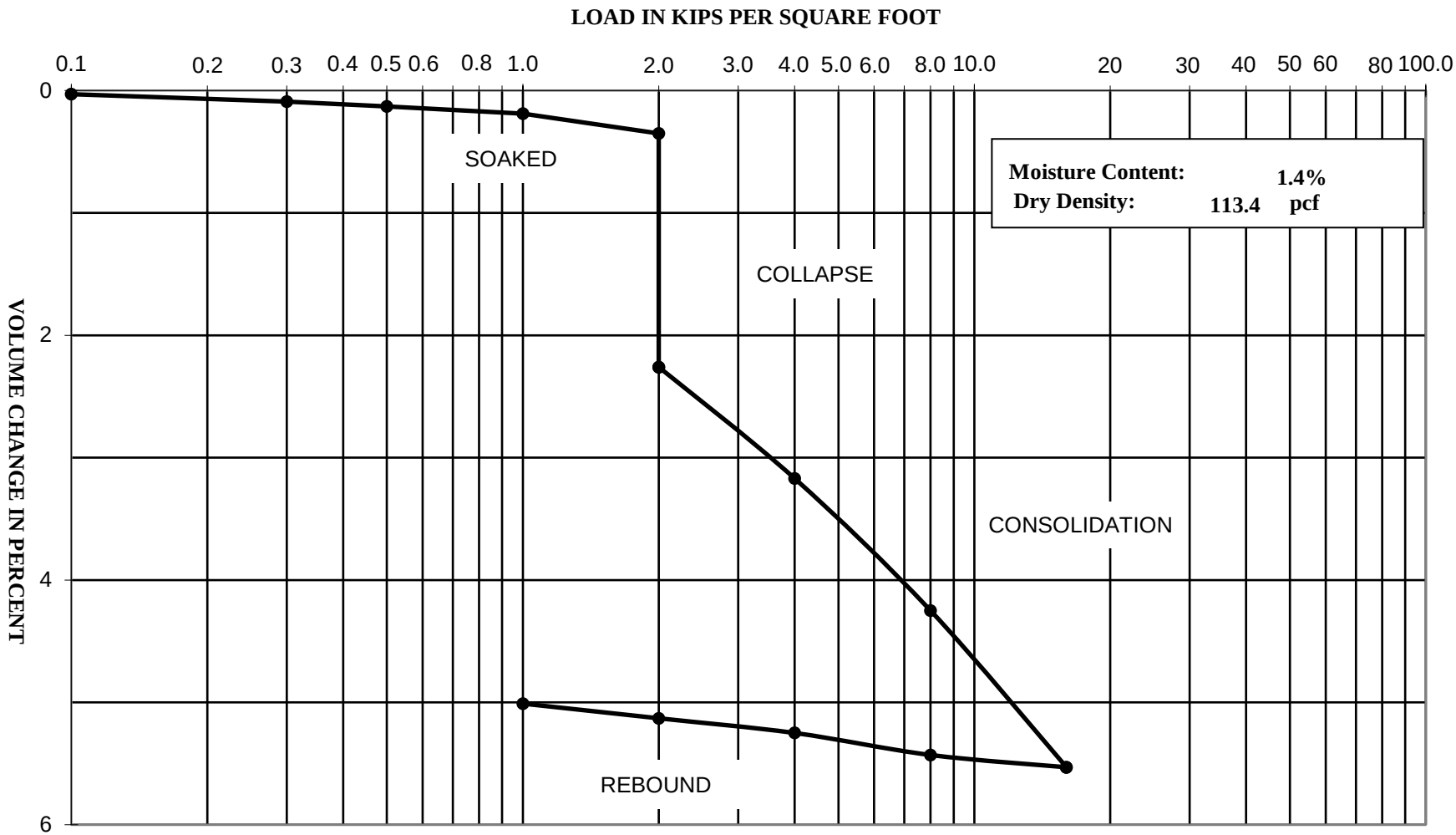
Project Name: Multi Family Project - Selma, CA

Project Number: 1-222-0679

Boring: B-2 @ 3.5'

SALEM engineering group, inc.

CONSOLIDATION - PRESSURE TEST DATA
ASTM D2435



Project Name: Multi Family Project - Selma, CA

Project Number: 1-222-0679

Boring: B-18 @ 2'

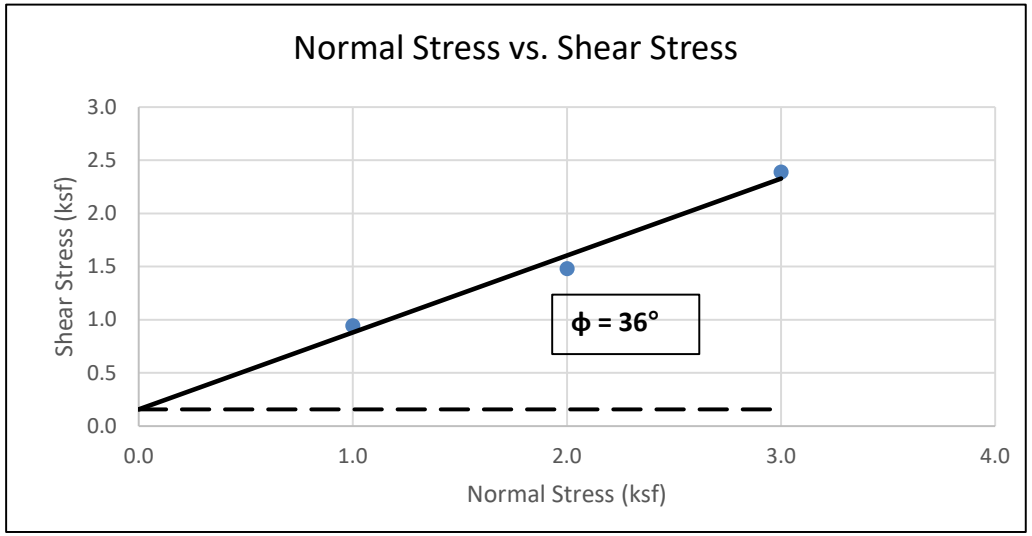
SALEM engineering group, inc.

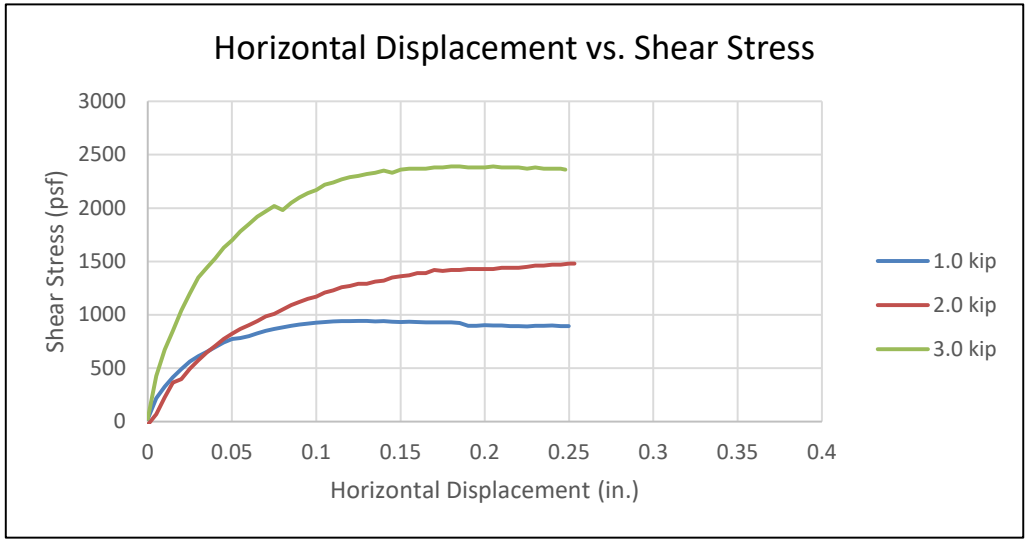
Direct Shear Test (ASTM D3080)

Project Name: Multi Family Project - Selma, CA
Project Number: 1-222-0679
Client:
Boring: B-3 @ 3.5'
Soil Type: Silty SAND (SM)
Sample Type: Undisturbed Ring
Tested By: NL
Reviewed By:
Date of Test: 7/12/22
Test Equipment: GeoComp ShearTrac II

	Loading		
	1.0 kip	**2.0 kip**	**3.0 kip**
Normal Stress (ksf)	1.00	2.00	3.00
Shear Rate (in/min)	0.0040	0.0040	0.0040
Peak Shear Stress (ksf)	0.94	1.48	2.39

Initial Height of Sample (in)	1.000	1.000	1.000
Post-Consol. Sample Height (in.)	0.982	0.953	0.949
Post-Shear Sample Height (in.)	0.970	0.922	0.927
Diameter of Sample (in)	2.4	2.4	2.4
Initial (pre-shear) Values			
Moisture Content (%)	1.3		
Dry Density (pcf)	107.5	107.2	106.2
Saturation %	6.2	6.2	6.0
Void Ratio	0.55	0.56	0.57
Consolidated Void Ratio	0.52	0.48	0.49
Final (post-shear) Values			
Final Moisture Content (%)	16.4	16.4	16.8
Dry Density (pcf)	104.3	107.2	104.8
Saturation %	60.1	67.6	66.2
Void Ratio	0.73	0.65	0.68





Peak Shear Strength Values	
Slope	0.72
Friction Angle	36
Cohesion (psf)	157

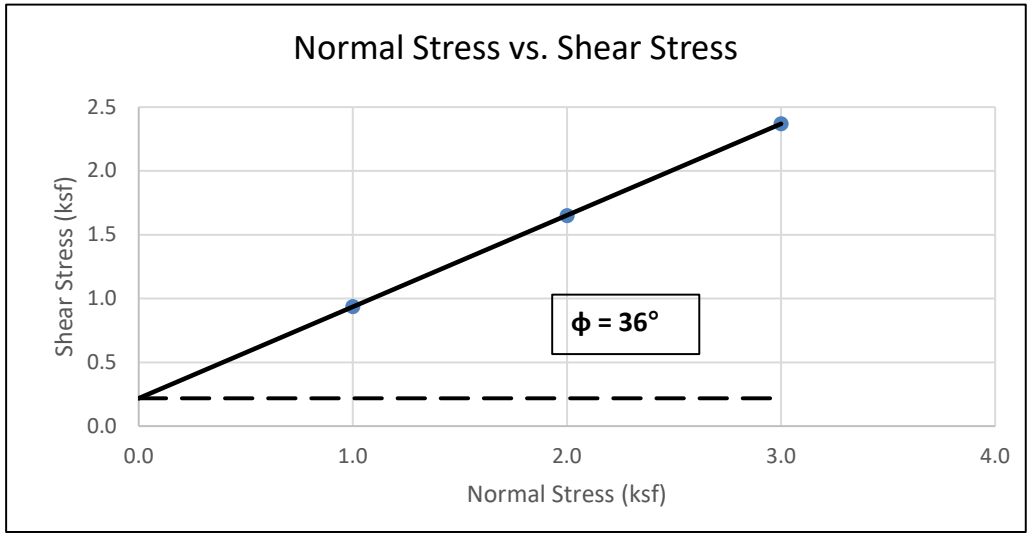
SALEM engineering group, inc.
4729 W. Jacquelyn Ave.
Fresno, CA 93722

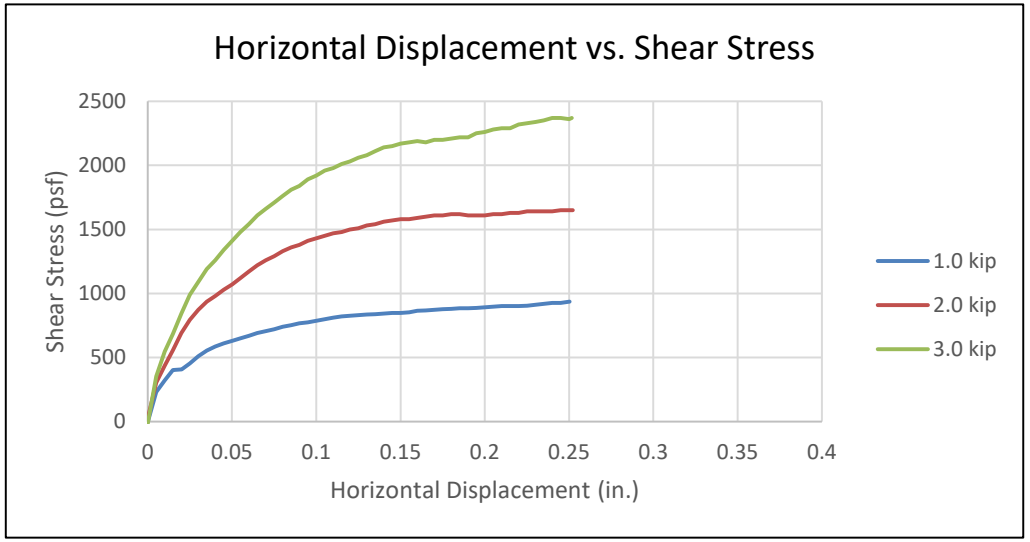
Direct Shear Test (ASTM D3080)

Project Name: Multi Family Project - Selma, CA
Project Number: 1-222-0679
Client:
Boring: B-18 @ 5'
Soil Type: Silty SAND (SM)
Sample Type: Undisturbed Ring
Tested By: MC \ NL
Reviewed By:
Date of Test: 8/14/22
Test Equipment: GeoComp ShearTrac II

	Loading		
	1.0 kip	**2.0 kip**	**3.0 kip**
Normal Stress (ksf)	1.00	2.00	3.00
Shear Rate (in/min)	0.0040	0.0040	0.0040
Peak Shear Stress (ksf)	0.94	1.65	2.37

Initial Height of Sample (in)	1.000	1.000	1.000
Post-Consol. Sample Height (in.)	0.952	0.944	0.926
Post-Shear Sample Height (in.)	0.923	0.914	0.892
Diameter of Sample (in)	2.4	2.4	2.4
Initial (pre-shear) Values			
Moisture Content (%)	1.4		
Dry Density (pcf)	110.4	106.1	105.6
Saturation %	7.4	6.6	6.5
Void Ratio	0.52	0.58	0.59
Consolidated Void Ratio	0.45	0.49	0.47
Final (post-shear) Values			
Final Moisture Content (%)	21.0	21.8	23.6
Dry Density (pcf)	108.2	107.9	100.9
Saturation %	83.8	79.6	87.1
Void Ratio	0.67	0.74	0.73





Peak Shear Strength Values	
Slope	0.72
Friction Angle	36
Cohesion (psf)	218

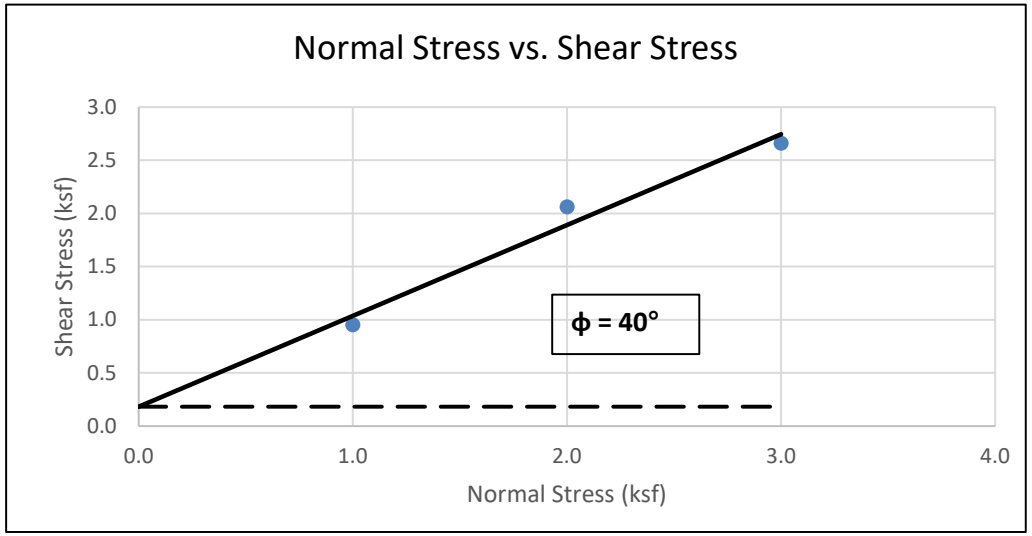
SALEM engineering group, inc.
4729 W. Jacquelyn Ave.
Fresno, CA 93722

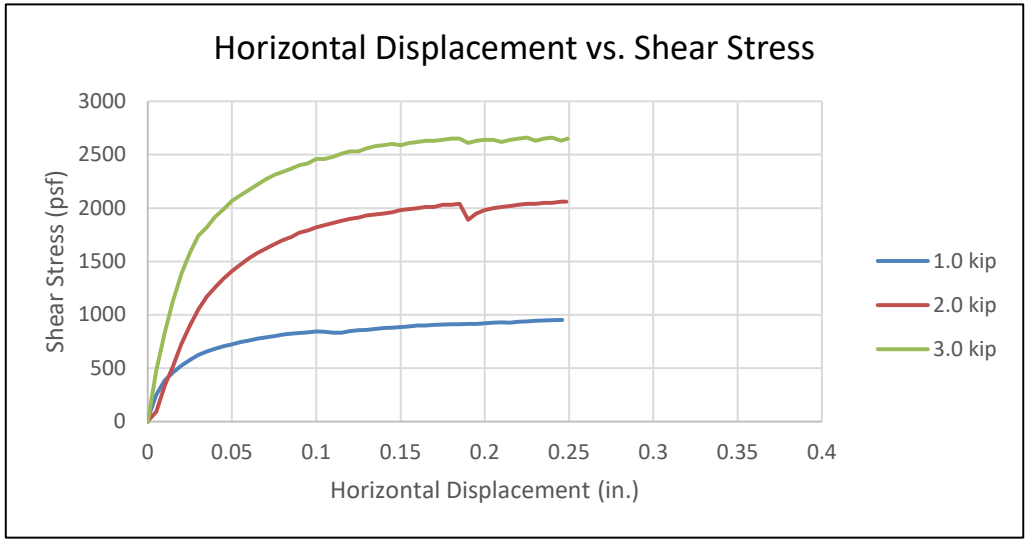
Direct Shear Test (ASTM D3080)

Project Name: Multi Family Project - Selma, CA
Project Number: 1-222-0679
Client:
Boring: B-25 @ 10'
Soil Type: Silty SAND (SM)
Sample Type: Undisturbed Ring
Tested By: MC / NL
Reviewed By:
Date of Test: 7/13/22
.

	Loading		
	1.0 kip	**2.0 kip**	**3.0 kip**
Normal Stress (ksf)	1.00	2.00	3.00
Shear Rate (in/min)	0.0040	0.0040	0.0040
Peak Shear Stress (ksf)	0.95	2.06	2.66

Initial Height of Sample (in)	1.000	1.000	1.000
Post-Consol. Sample Height (in.)	0.963	0.954	0.931
Post-Shear Sample Height (in.)	0.935	0.925	0.903
Diameter of Sample (in)	2.4	2.4	2.4
Initial (pre-shear) Values			
Moisture Content (%)	3.0		
Dry Density (pcf)	85.0	95.2	91.4
Saturation %	8.4	10.7	9.8
Void Ratio	0.96	0.75	0.82
Consolidated Void Ratio	0.89	0.67	0.70
Final (post-shear) Values			
Final Moisture Content (%)	36.4	34.2	31.1
Dry Density (pcf)	79.9	83.7	89.4
Saturation %	68.1	82.2	75.7
Void Ratio	1.43	1.11	1.10



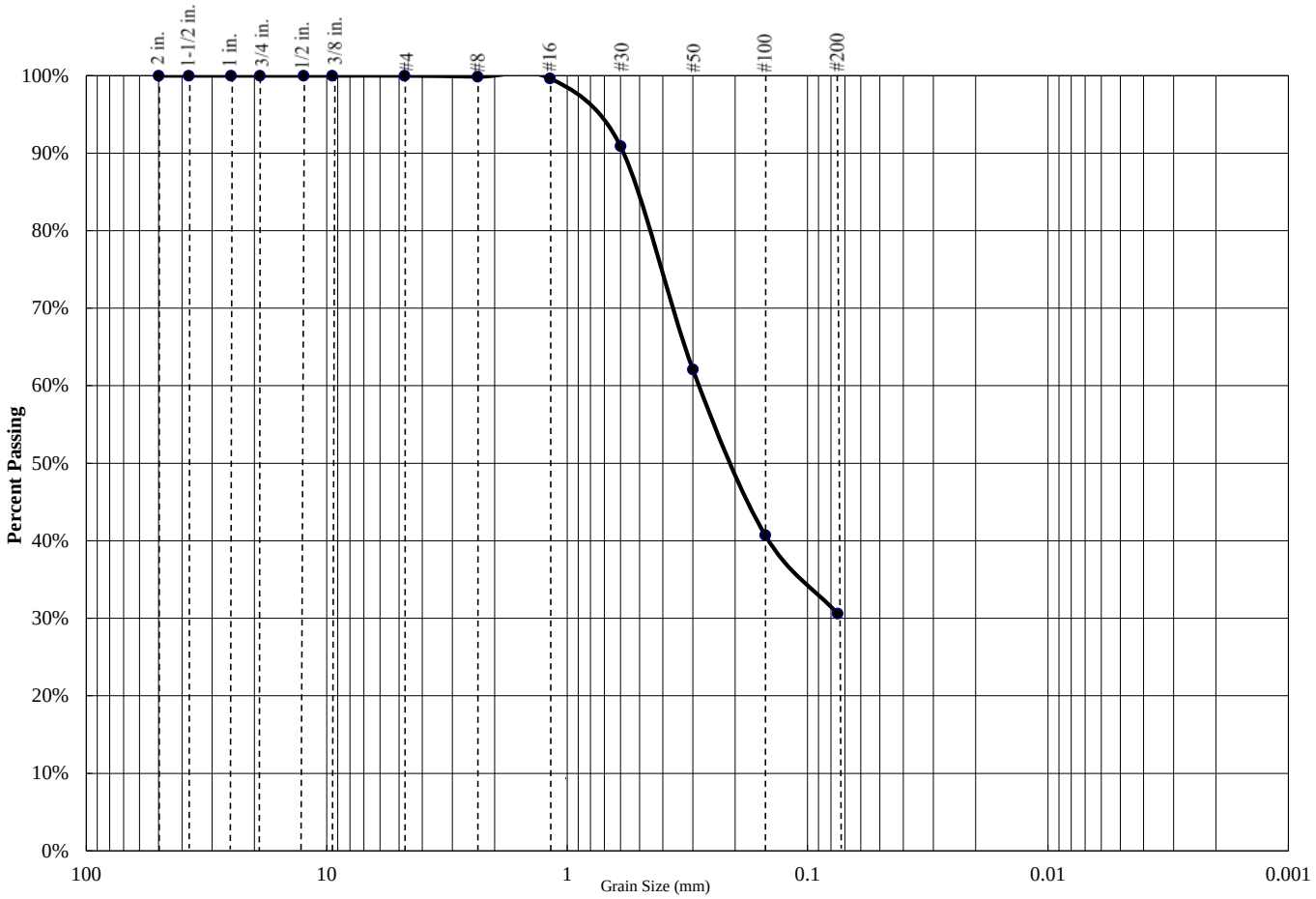


Peak Shear Strength Values	
Slope	0.85
Friction Angle	40
Cohesion (psf)	183

SALEM engineering group, inc.
4729 W. Jacquelyn Ave.
Fresno, CA 93722

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
0%	69%	31%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	100.0%
#8	99.9%
#16	99.7%
#30	90.9%
#50	62.1%
#100	40.7%
#200	30.6%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty SAND (SM)

Project Name: Multi Family Project - Selma, CA

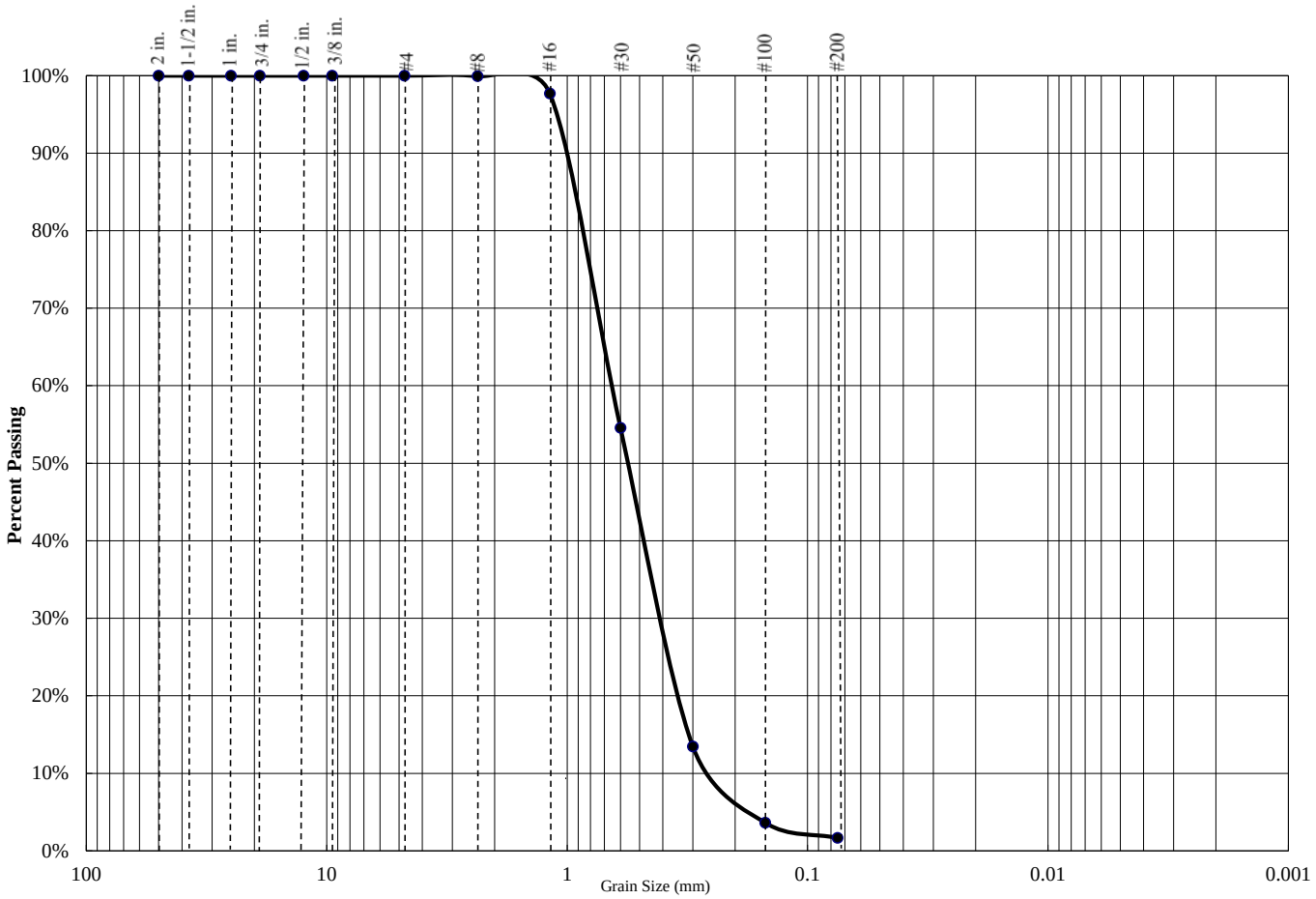
Project Number: 1-222-0679

Boring: B-1 @ 3.5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
0%	98%	2%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	100.0%
#8	99.9%
#16	97.7%
#30	54.6%
#50	13.5%
#100	3.6%
#200	1.7%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Poorly Graded SAND (SP)

Project Name: Multi Family Project - Selma, CA

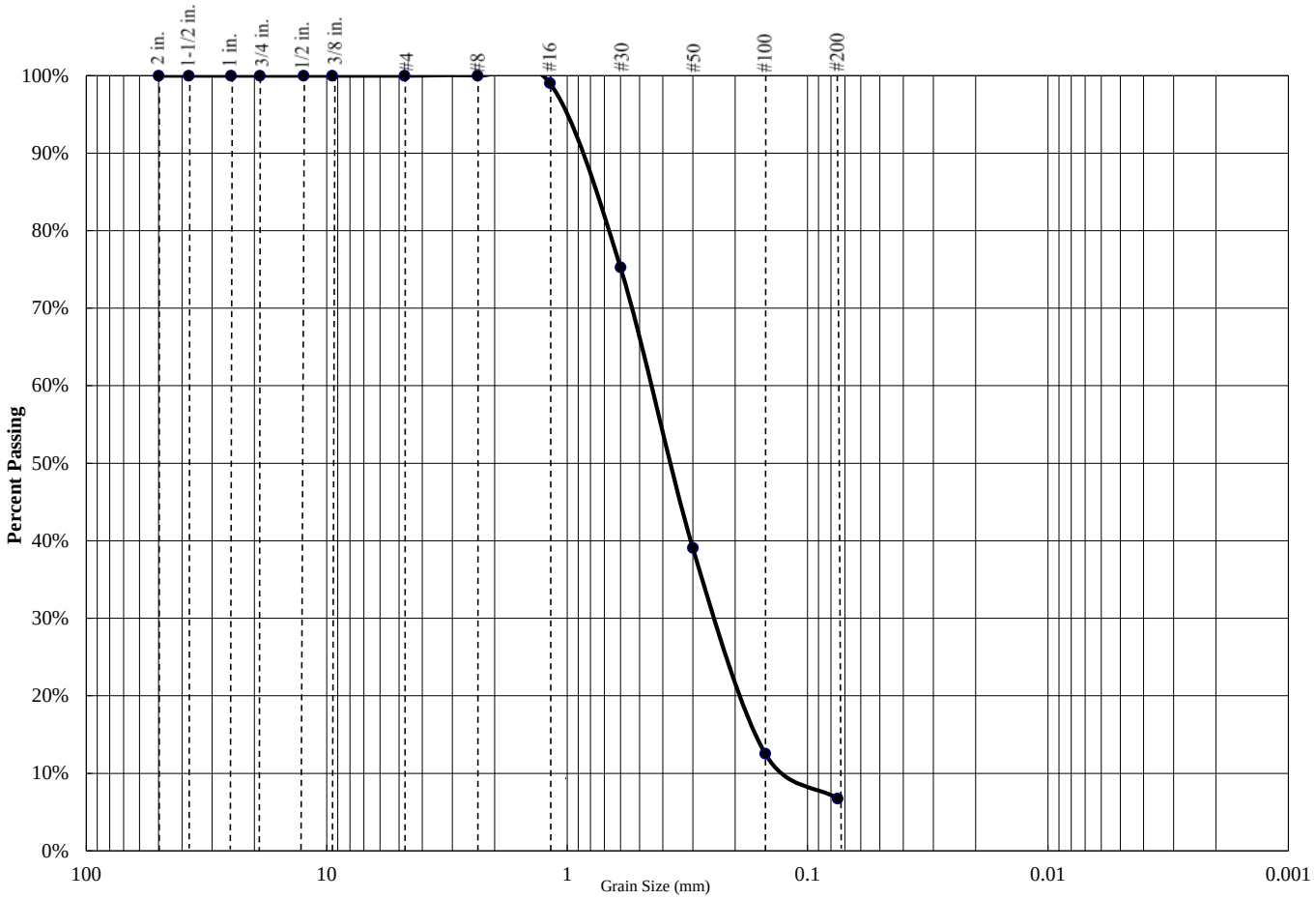
Project Number: 1-222-0679

Boring: B-1 @ 13.5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
0%	93%	7%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	100.0%
#8	100.0%
#16	99.0%
#30	75.3%
#50	39.1%
#100	12.5%
#200	6.8%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Poorly Graded SAND with Silt (SP-SM)

Project Name: Multi Family Project - Selma, CA

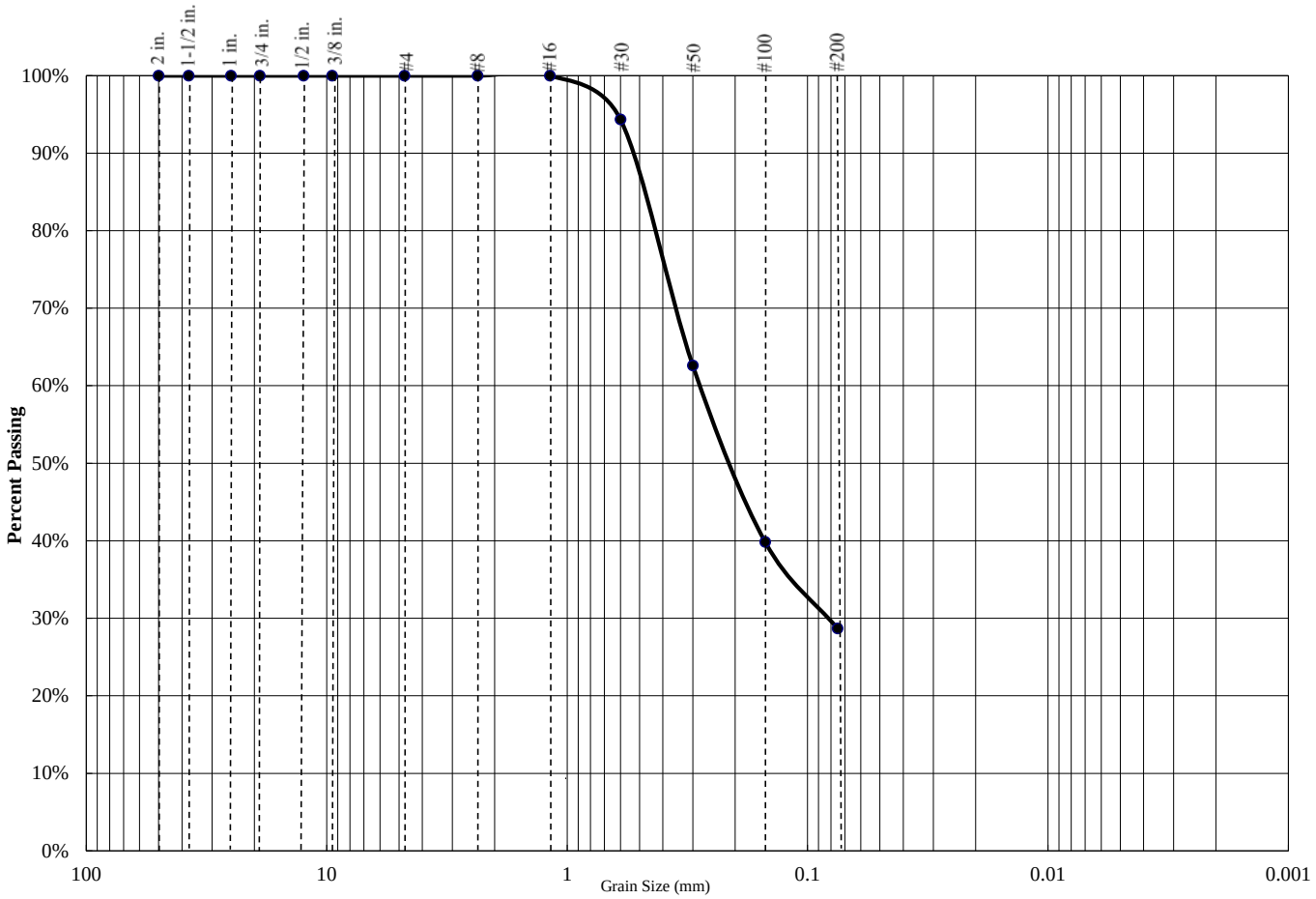
Project Number: 1-222-0679

Boring: B-1 @ 23.5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
0%	71%	29%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	100.0%
#8	100.0%
#16	100.0%
#30	94.4%
#50	62.6%
#100	39.8%
#200	28.7%

Atterberg Limits		
PL=	LL=	PI=

Coefficients					
D_{85}=		D_{60}=		D_{50}=	
D_{30}=		D_{15}=		D_{10}=	
C_u=	N/A	C_c=	N/A		

USCS CLASSIFICATION
Silty SAND (SM)

Project Name: Multi Family Project - Selma, CA

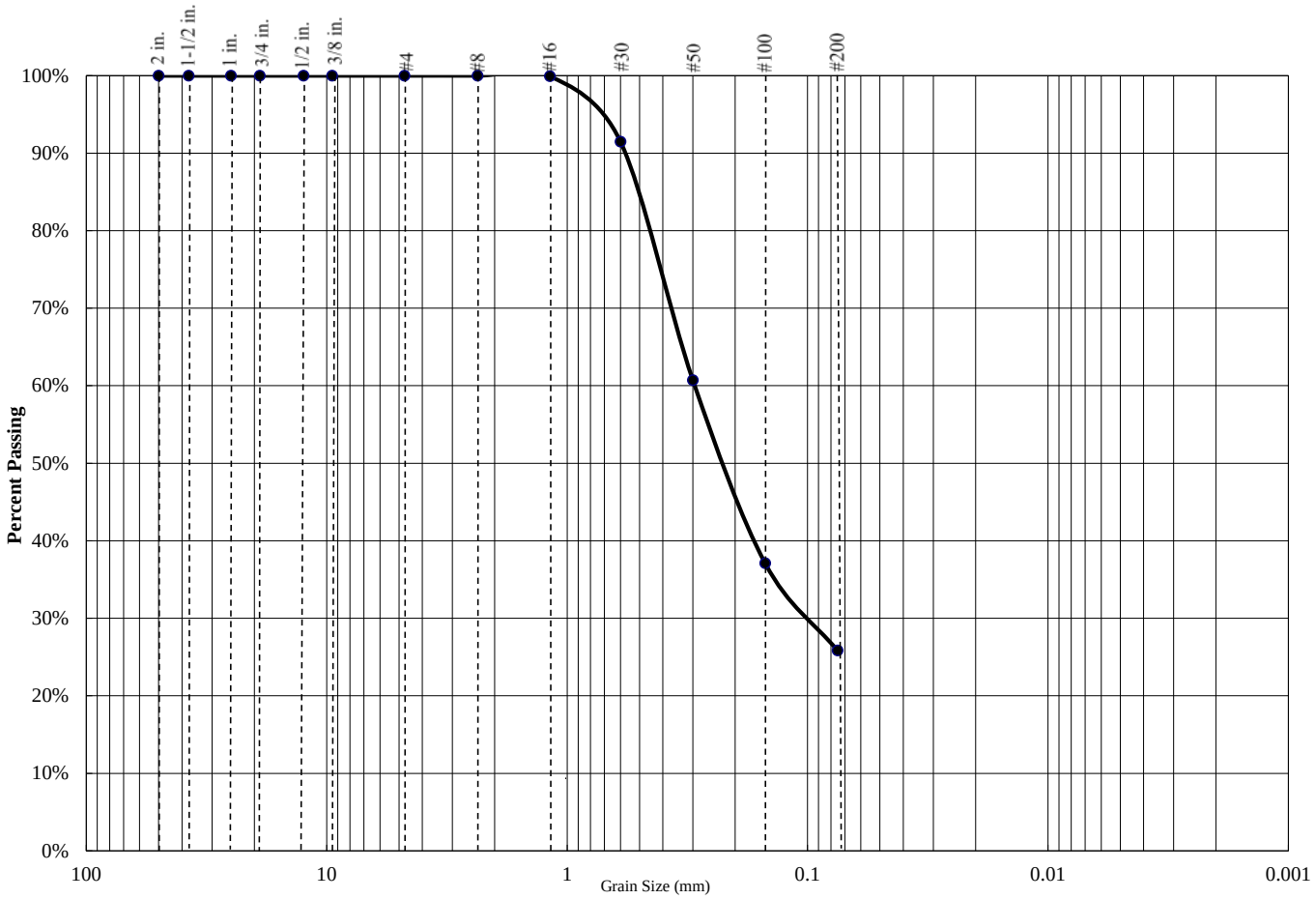
Project Number: 1-222-0679

Boring: B-2 @ 8.5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
0%	74%	26%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	100.0%
#8	100.0%
#16	99.9%
#30	91.5%
#50	60.7%
#100	37.1%
#200	25.8%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty SAND (SM)

Project Name: Multi Family Project - Selma, CA

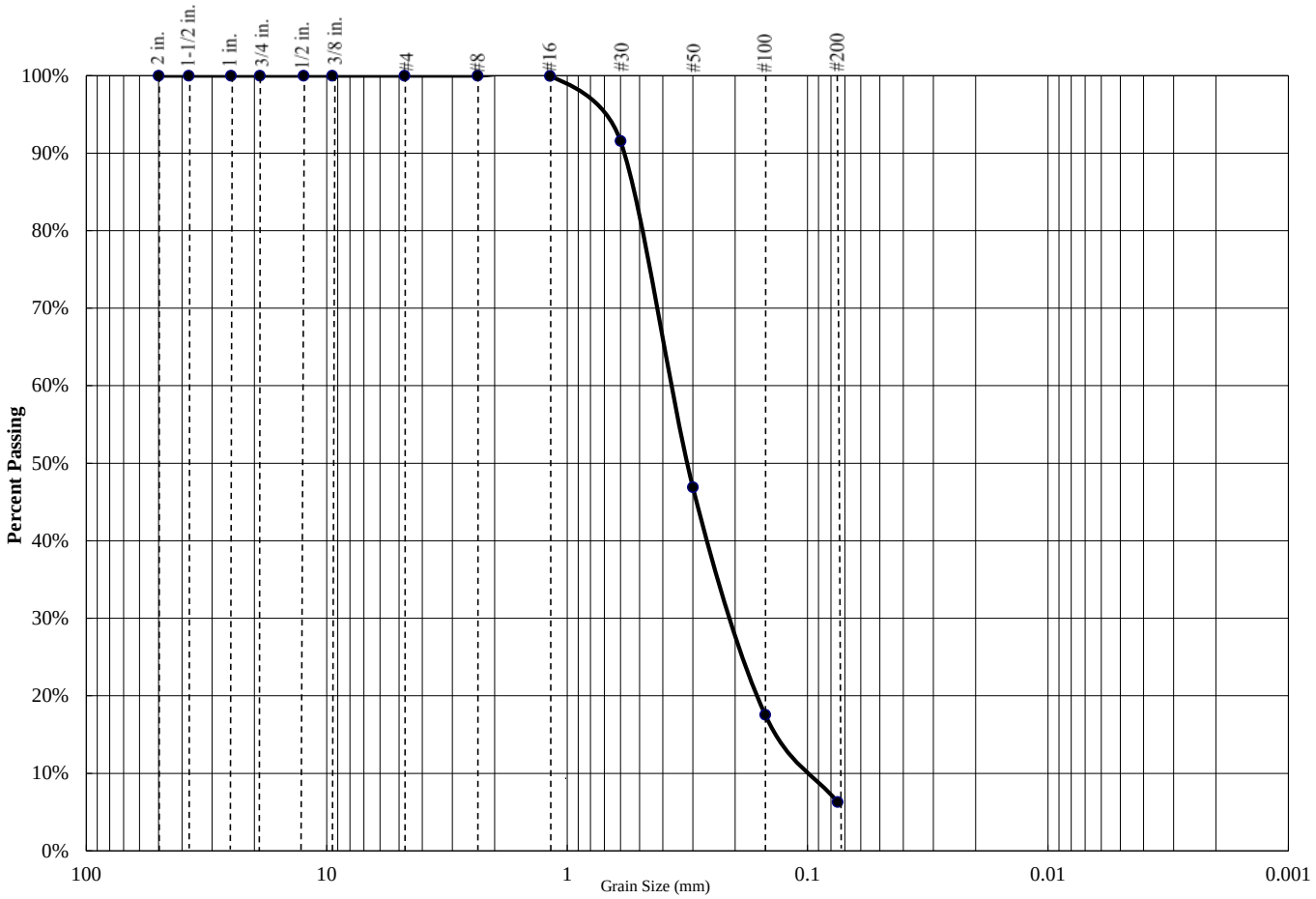
Project Number: 1-222-0679

Boring: B-3 @ 3.5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
0%	94%	6%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	100.0%
#8	100.0%
#16	100.0%
#30	91.6%
#50	46.9%
#100	17.5%
#200	6.3%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Poorly Graded SAND with Silt (SP-SM)

Project Name: Multi Family Project - Selma, CA

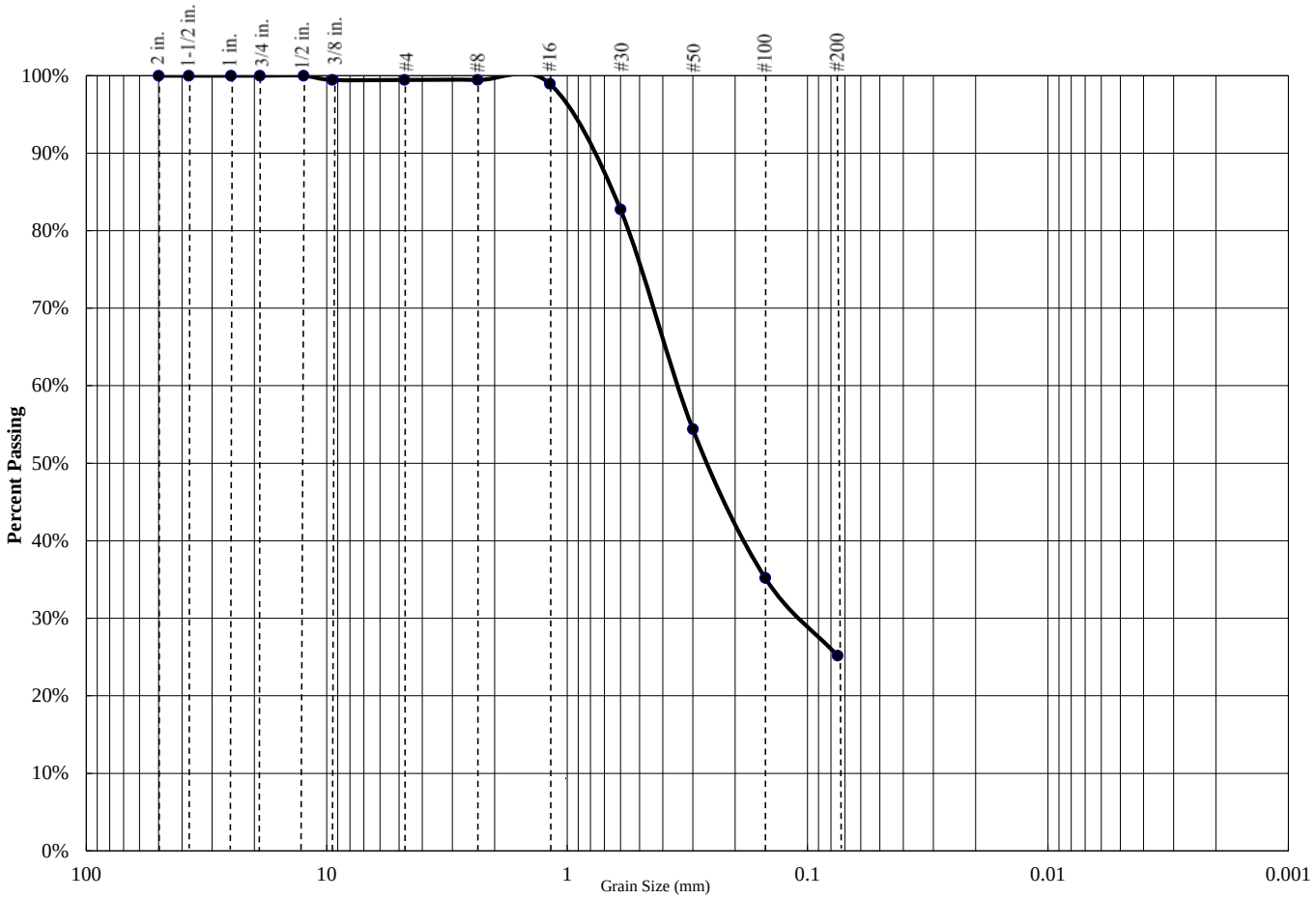
Project Number: 1-222-0679

Boring: B-4 @ 18.5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
1%	74%	25%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	99.4%
#4	99.4%
#8	99.4%
#16	98.9%
#30	82.7%
#50	54.4%
#100	35.2%
#200	25.2%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Silty SAND (SM)

Project Name: Multi Family Project - Selma, CA

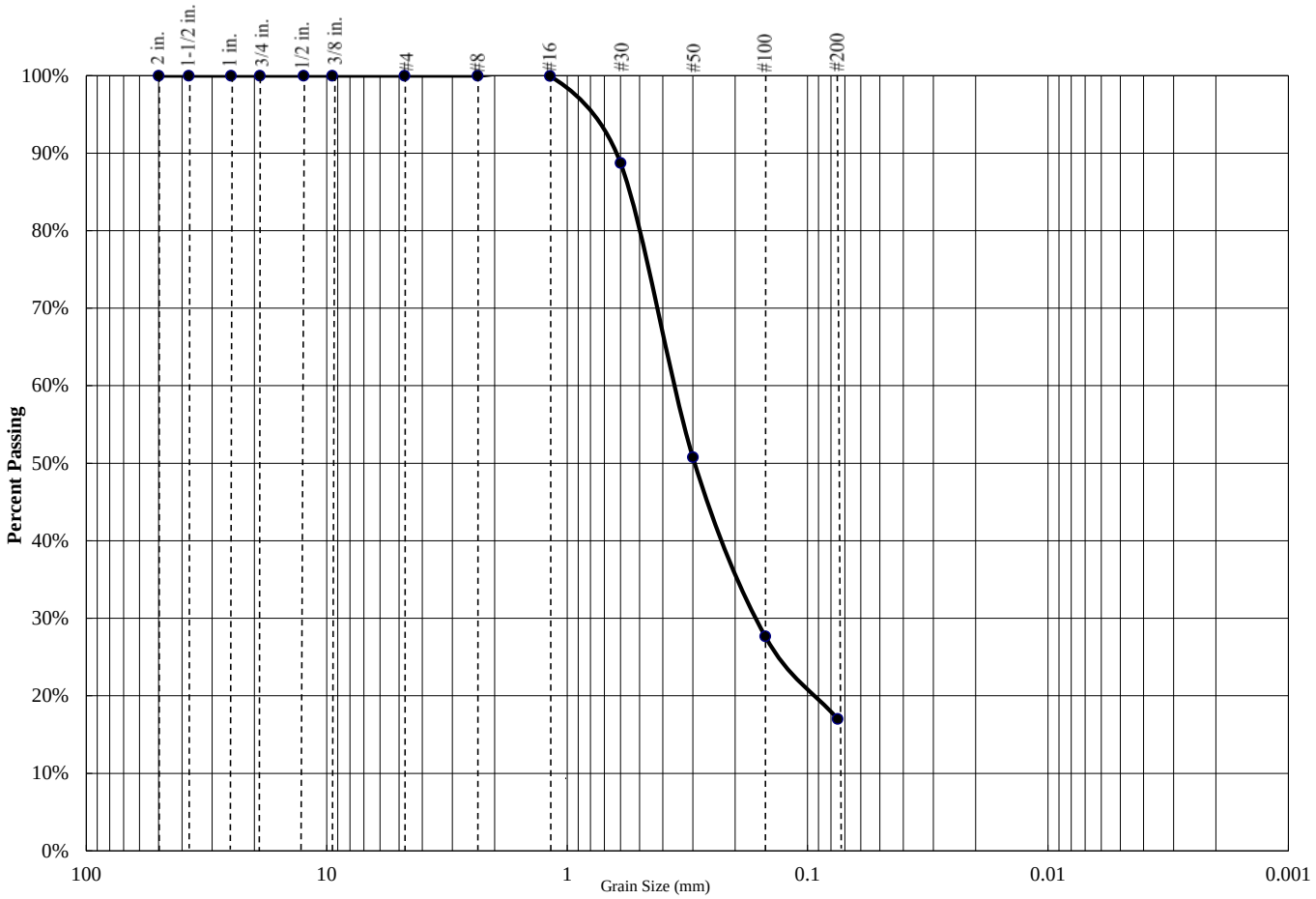
Project Number: 1-222-0679

Boring: B-4 @ 28.5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
0%	83%	17%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	100.0%
#8	100.0%
#16	100.0%
#30	88.8%
#50	50.8%
#100	27.7%
#200	17.0%

Atterberg Limits		
PL=	LL=	PI=

Coefficients					
D_{85}=		D_{60}=		D_{50}=	
D_{30}=		D_{15}=		D_{10}=	
C_u=	N/A	C_c=	N/A		

USCS CLASSIFICATION
Silty SAND (SM)

Project Name: Multi Family Project - Selma, CA

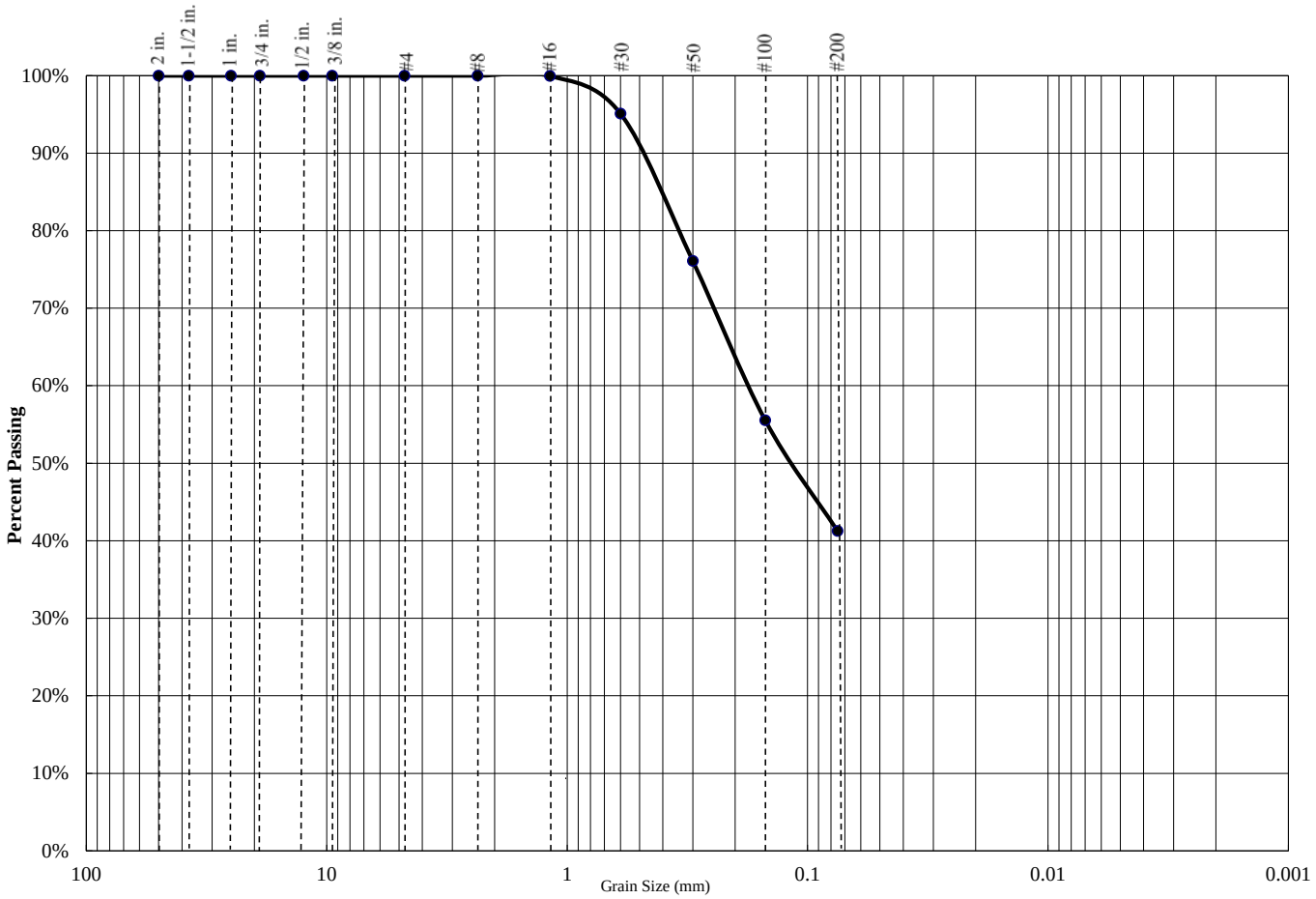
Project Number: 1-222-0679

Boring: B-7 @ 2'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
0%	59%	41%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	100.0%
#8	100.0%
#16	100.0%
#30	95.1%
#50	76.1%
#100	55.5%
#200	41.2%

Atterberg Limits		
PL=	LL=	PI=

Coefficients					
D_{85}=		D_{60}=		D_{50}=	
D_{30}=		D_{15}=		D_{10}=	
C_u=	N/A	C_c=	N/A		

USCS CLASSIFICATION
Sandy SILT (ML)

Project Name: Multi Family Project - Selma, CA

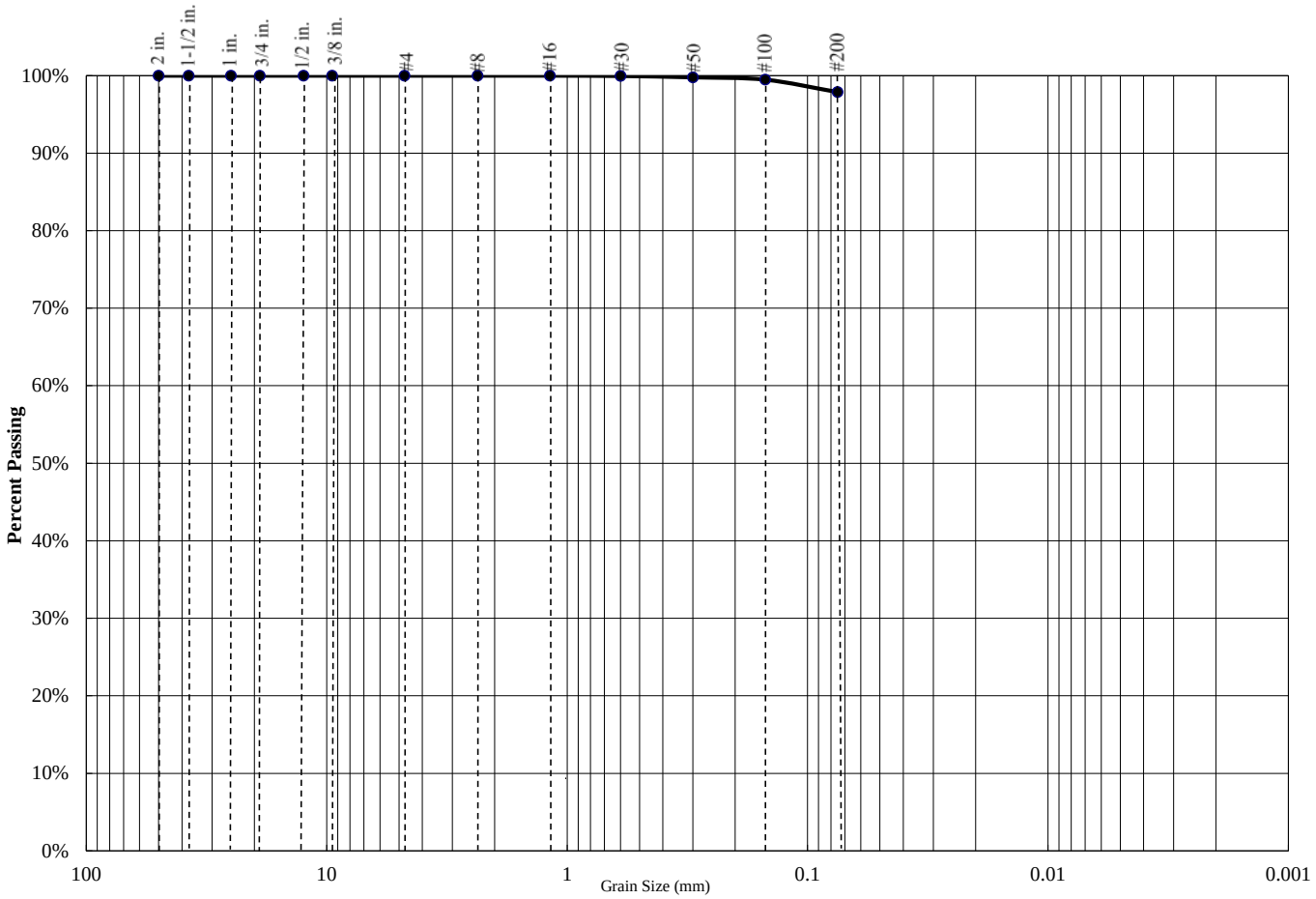
Project Number: 1-222-0679

Boring: B-7 @ 5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
0%	2%	98%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	100.0%
#8	100.0%
#16	100.0%
#30	100.0%
#50	99.8%
#100	99.5%
#200	97.9%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
SILT (ML)

Project Name: Multi Family Project - Selma, CA

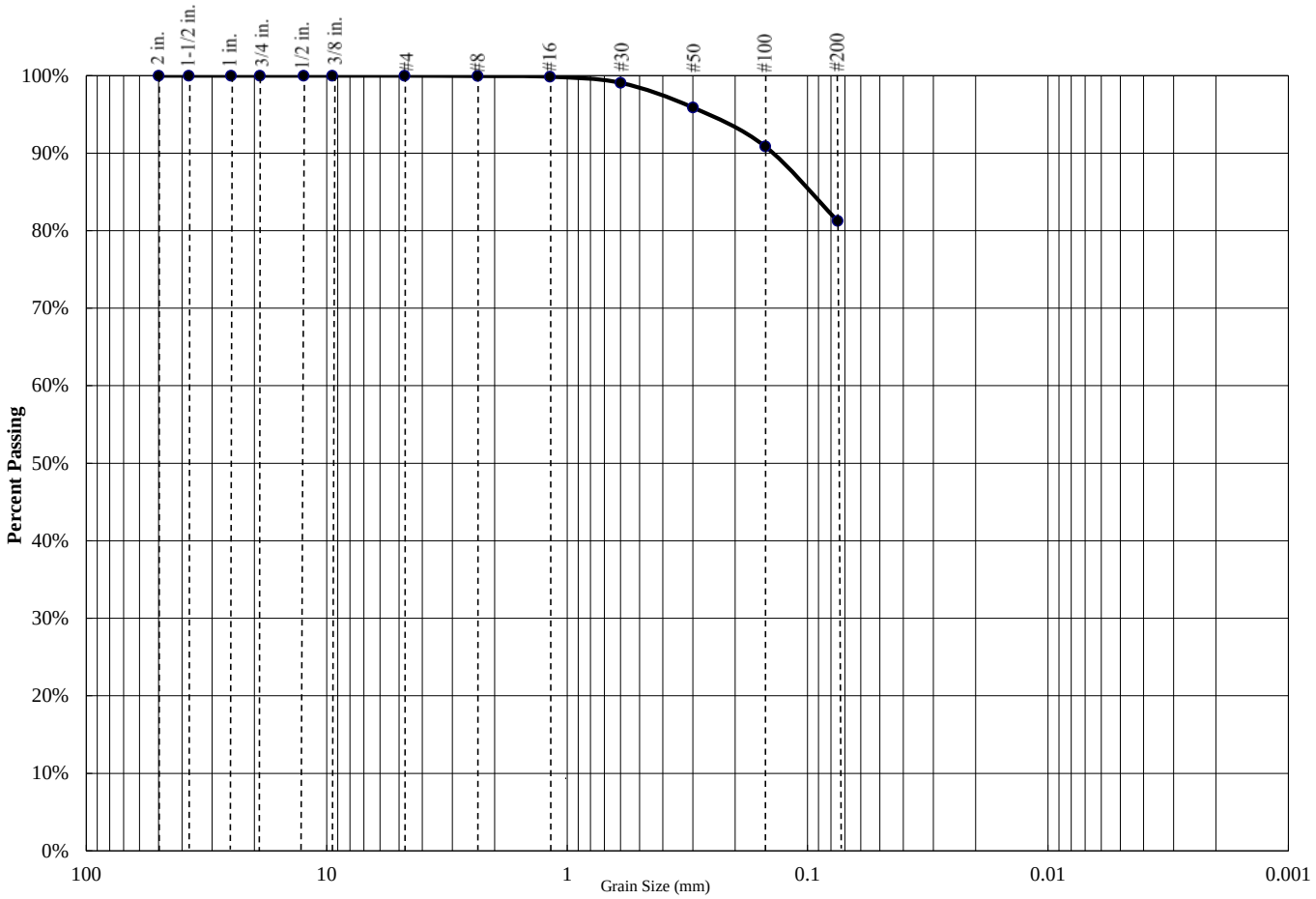
Project Number: 1-222-0679

Boring: B-21 @ 5'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
0%	19%	81%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	100.0%
#8	100.0%
#16	99.9%
#30	99.1%
#50	95.9%
#100	90.9%
#200	81.3%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
SILT with Sand(ML)

Project Name: Multi Family Project - Selma, CA

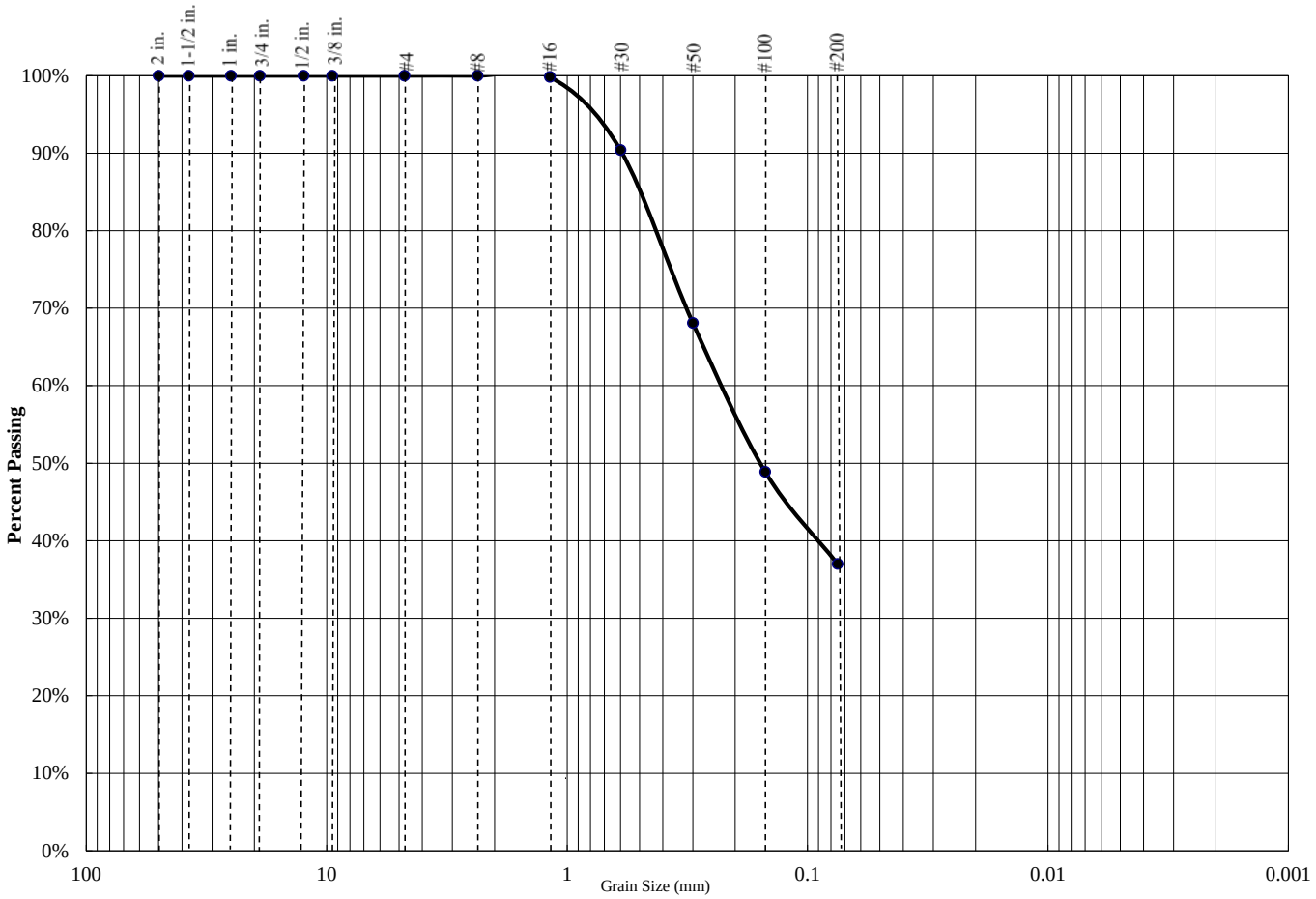
Project Number: 1-222-0679

Boring: B-21 @ 15'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
0%	63%	37%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	100.0%
#8	100.0%
#16	99.8%
#30	90.4%
#50	68.1%
#100	48.9%
#200	37.0%

Atterberg Limits		
PL=	LL=	PI=

Coefficients					
D_{85}=		D_{60}=		D_{50}=	
D_{30}=		D_{15}=		D_{10}=	
C_u=	N/A	C_c=	N/A		

USCS CLASSIFICATION
Silty SAND (SM)

Project Name: Multi Family Project - Selma, CA

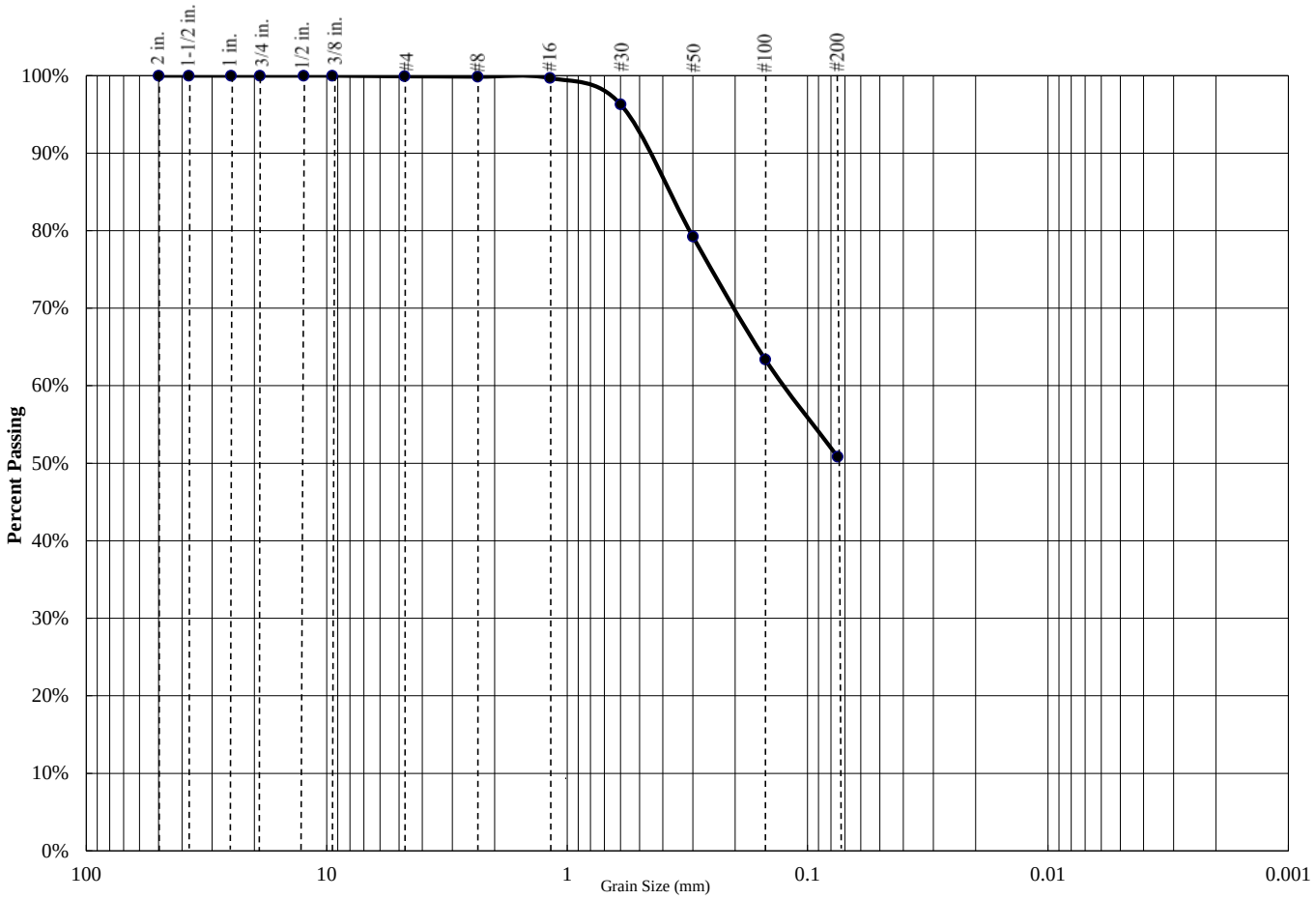
Project Number: 1-222-0679

Boring: B-21 @ 20'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
0%	49%	51%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	99.9%
#8	99.9%
#16	99.7%
#30	96.3%
#50	79.2%
#100	63.4%
#200	50.8%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Sandy SILT (ML)

Project Name: Multi Family Project - Selma, CA

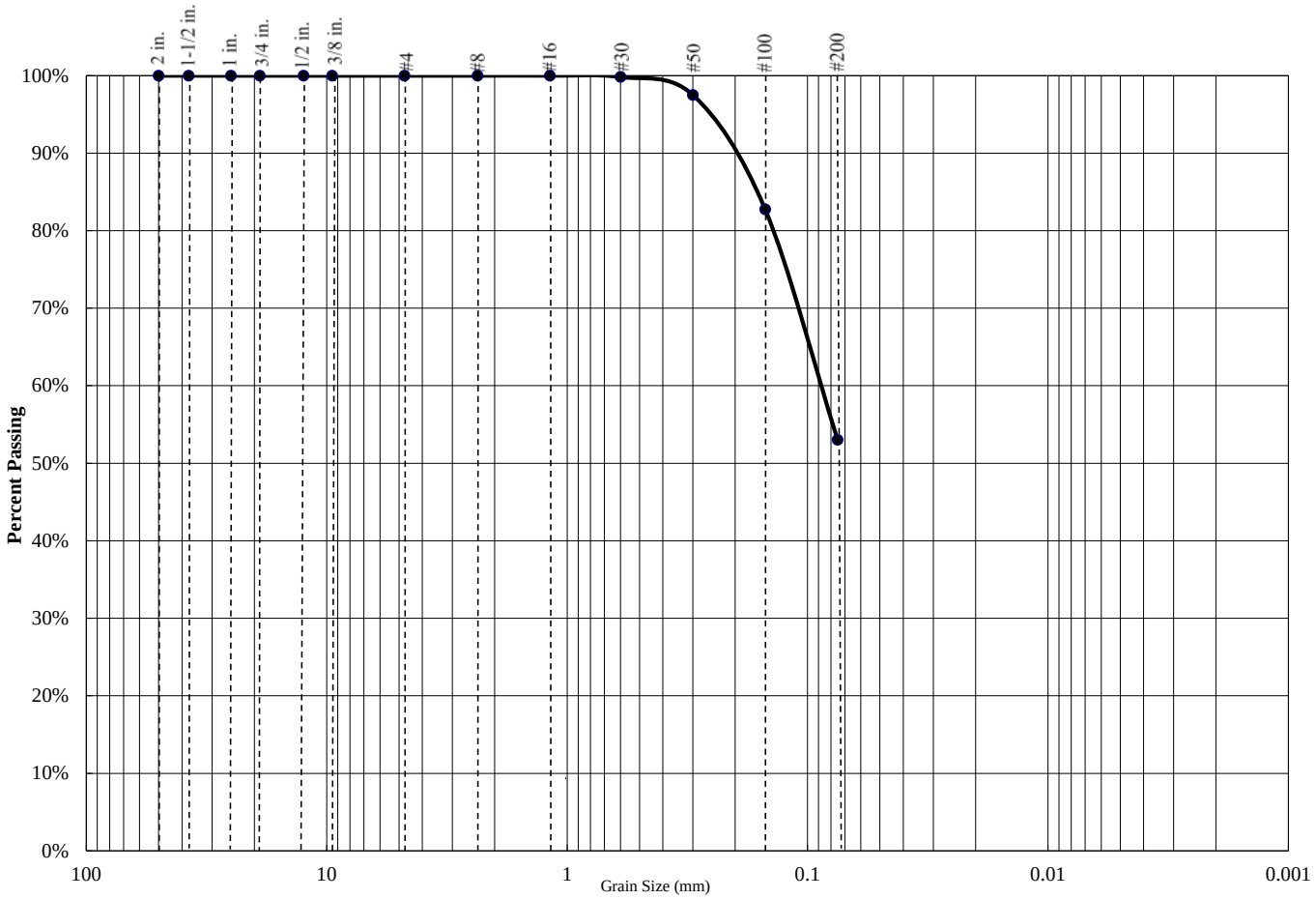
Project Number: 1-222-0679

Boring: B-25 @ 2'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
0%	47%	53%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	100.0%
#8	100.0%
#16	100.0%
#30	99.8%
#50	97.5%
#100	82.7%
#200	53.0%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Sandy SILT (ML)

Project Name: Multi Family Project - Selma, CA

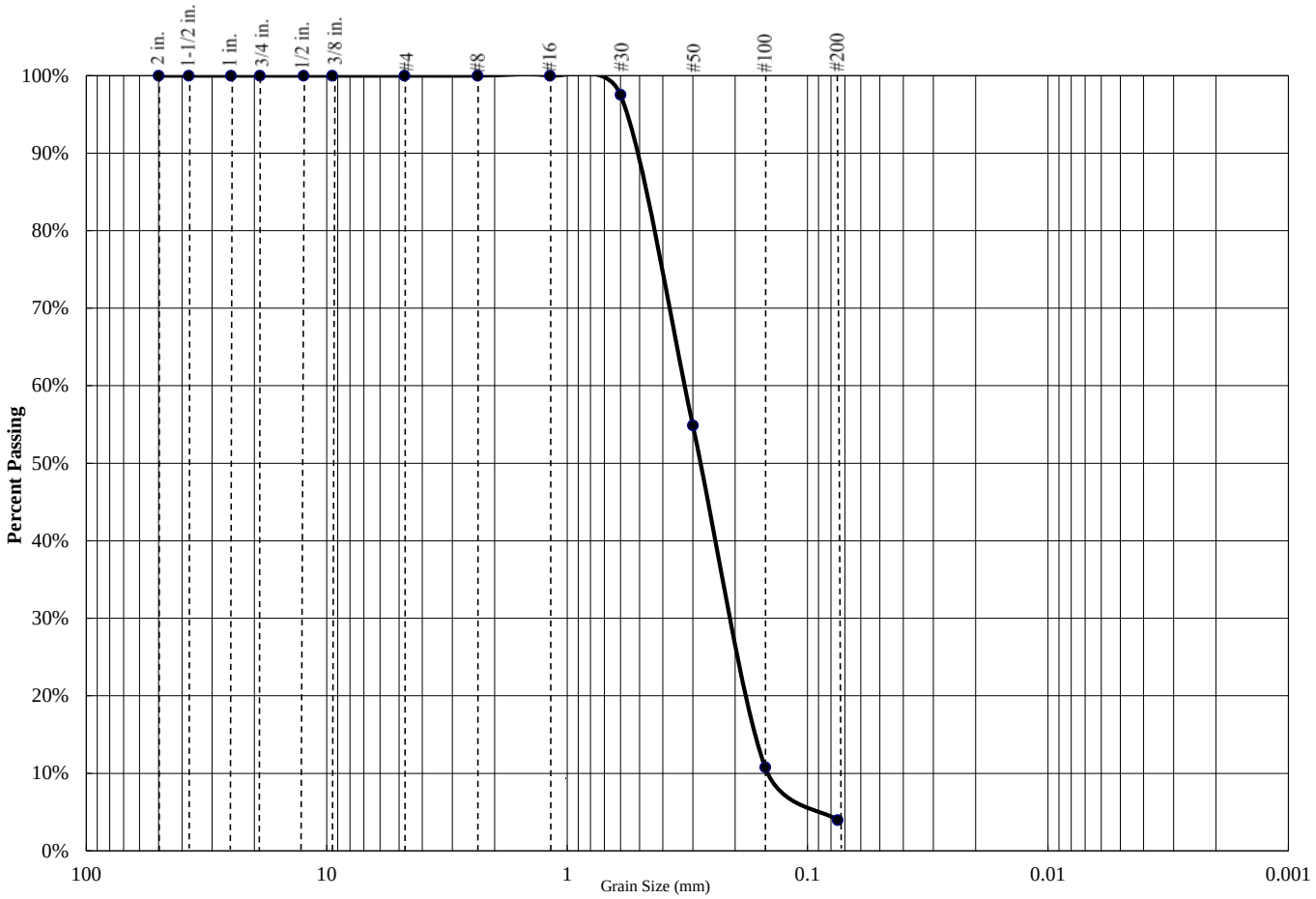
Project Number: 1-222-0679

Boring: B-25 @ 10'

SALEM engineering group, inc.

PARTICLE SIZE DISTRIBUTION DIAGRAM

GRADATION TEST - ASTM C136



Percent Gravel	Percent Sand	Percent Silt/Clay
0%	96%	4%

Sieve Size	Percent Passing
3/4 inch	100.0%
1/2 inch	100.0%
3/8 inch	100.0%
#4	100.0%
#8	100.0%
#16	100.0%
#30	97.5%
#50	54.9%
#100	10.8%
#200	4.0%

Atterberg Limits		
PL=	**LL=**	**PI=**

Coefficients					
D_{85}=		**D_{60}=**		**D_{50}=**	
D_{30}=		**D_{15}=**		**D_{10}=**	
C_u=	N/A	**C_c=**	N/A		

USCS CLASSIFICATION
Poorly Graded SAND (SP)

Project Name: Multi Family Project - Selma, CA

Project Number: 1-222-0679

Boring: B-25 @ 30'

SALEM engineering group, inc.

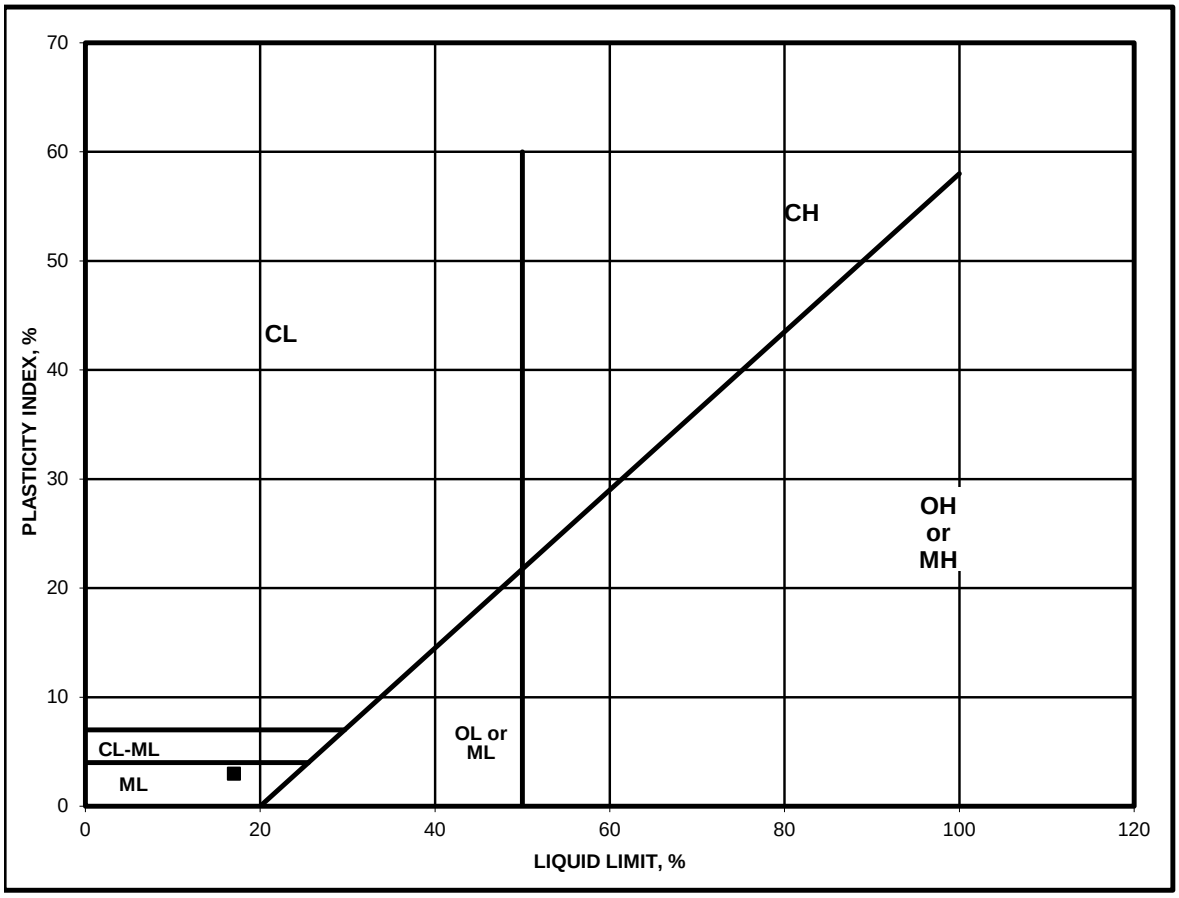
Atterberg Limits Determination
ASTM D4318

Project Name: Multi Family Project - Selma, CA
Project Number: 1-222-0679
Date Sampled: 7/6/22 & 7/7/22 Date Tested: 7/11/22
Sampled By: SEG Tested By: MC
Sample Location: B-7 @ 5'

Run Number	Plastic Limit			Liquid Limit		
	1	2	3	1	2	3
Weight of Wet Soil & Tare	28.63	28.87	29.05	35.09	34.36	36.34
Weight of Dry Soil & Tare	27.65	27.92	28.07	33.12	32.45	34.00
Weight of Water	0.98	0.95	0.98	1.97	1.91	2.34
Weight of Tare	20.73	21.05	21.11	21.07	21.04	20.82
Weight of Dry Soil	6.92	6.87	6.96	12.05	11.41	13.18
Water Content	14.2	13.8	14.1	16.3	16.7	17.8
Number of Blows				32	27	24

Plastic Limit : 14 **Liquid Limit : 17**

Plasticity Index : 3
Unified Soil Classification : ML



SALEM engineering group, inc.

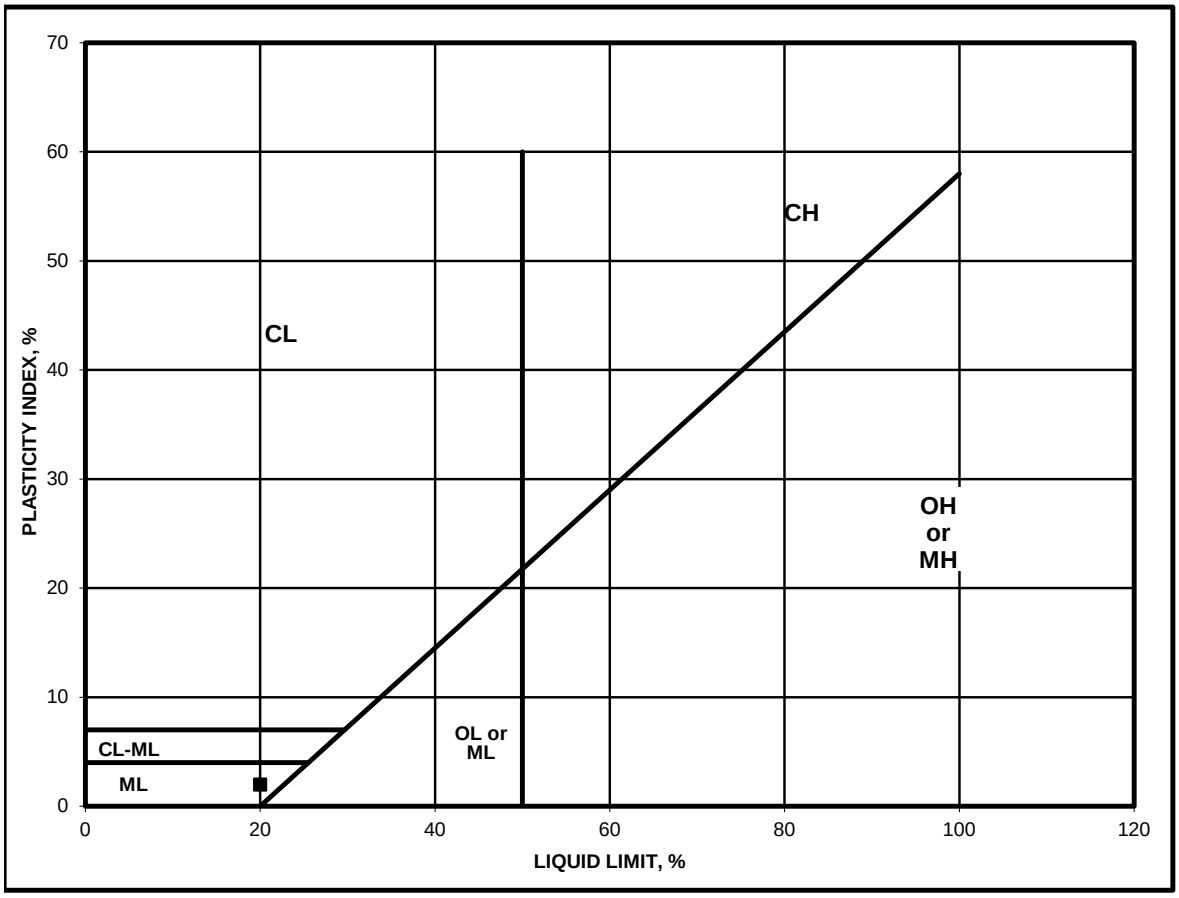
Atterberg Limits Determination
ASTM D4318

Project Name: Multi Family Project - Selma, CA
Project Number: 1-222-0679
Date Sampled: 7/6/22 & 7/7/22 Date Tested: 7/11/22
Sampled By: SEG Tested By: MC
Sample Location: B-21 @ 5'

Run Number	Plastic Limit			Liquid Limit		
	1	2	3	1	2	3
Weight of Wet Soil & Tare	28.74	29.00	29.15	34.41	33.00	34.83
Weight of Dry Soil & Tare	27.57	27.79	27.96	32.15	31.00	32.54
Weight of Water	1.17	1.21	1.19	2.26	2.00	2.29
Weight of Tare	20.86	21.05	21.31	20.19	20.88	21.26
Weight of Dry Soil	6.71	6.74	6.65	11.96	10.12	11.28
Water Content	17.4	18.0	17.9	18.9	19.8	20.3
Number of Blows				33	22	18

Plastic Limit : 18 **Liquid Limit : 20**

Plasticity Index : 2
Unified Soil Classification : ML



SALEM engineering group, inc.

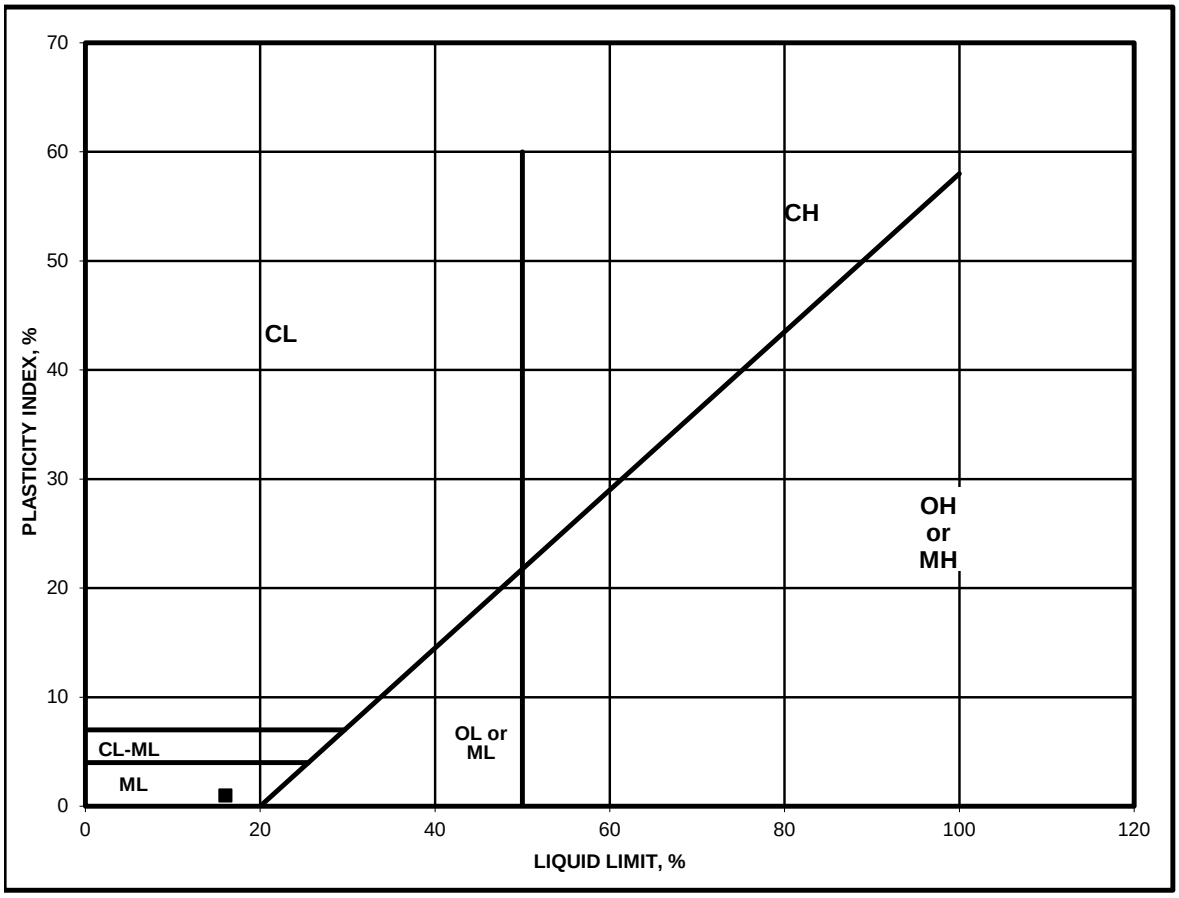
Atterberg Limits Determination
ASTM D4318

Project Name: Multi Family Project - Selma, CA
Project Number: 1-222-0679
Date Sampled: 7/6/22 & 7/7/22 Date Tested: 7/11/22
Sampled By: SEG Tested By: MC
Sample Location: B-25 @ 2'

Run Number	Plastic Limit			Liquid Limit		
	1	2	3	1	2	3
Weight of Wet Soil & Tare	28.73	28.76	28.97	33.40	33.72	36.92
Weight of Dry Soil & Tare	27.67	27.70	27.90	31.65	32.00	34.72
Weight of Water	1.06	1.06	1.07	1.75	1.72	2.20
Weight of Tare	20.77	20.61	20.88	20.54	21.34	21.26
Weight of Dry Soil	6.90	7.09	7.02	11.11	10.66	13.46
Water Content	15.4	15.0	15.2	15.8	16.1	16.3
Number of Blows				29	22	16

Plastic Limit : 15 **Liquid Limit : 16**

Plasticity Index : 1
Unified Soil Classification : ML



SALEM engineering group, inc.

EXPANSION INDEX TEST
ASTM D4829

Project Name: Multi Family Project - Selma, CA
Project Number: 1-222-0679
Date Sampled: 7/6/22 & 7/7/22 Date Tested: 7/11/22
Sampled By: SEG Tested By: MC
Sample Location: B-2 @ 0 - 3'
Soil Description: Silty SAND (SM)

Trial #	1	2	3
Weight of Soil & Mold, g.	597.3		
Weight of Mold, g.	187.8		
Weight of Soil, g.	409.5		
Wet Density, pcf	123.5		
Weight of Moisture Sample (Wet), g.	862.0		
Weight of Moisture Sample (Dry), g.	794.1		
Moisture Content, %	8.6		
Dry Density, pcf	113.8		
Specific Gravity of Soil	2.7		
Degree of Saturation, %	48.0		

Time	Inital	30 min	1 hr	6 hrs	12 hrs	24 hrs
Dial Reading	0	-0.0076	-0.0093	--	--	-0.0099

Expansion Index $_{measured}$ = 0
Expansion Index $_{50}$ = 0.0

Expansion Index = 0

Expansion Potential Table	
Exp. Index	Potential Exp.
0 - 20	Very Low
21 - 50	Low
51 - 90	Medium
91 - 130	High
>130	Very High

SALEM engineering group, inc.

EXPANSION INDEX TEST
ASTM D4829

Project Name: Multi Family Project - Selma, CA
Project Number: 1-222-0679
Date Sampled: 7/6/22 & 7/7/22 Date Tested: 7/11/22
Sampled By: SEG Tested By: MC
Sample Location: B-11 @ 0 - 3'
Soil Description: Silty SAND (SM)

Trial #	1	2	3
Weight of Soil & Mold, g.	610.7		
Weight of Mold, g.	187.8		
Weight of Soil, g.	422.9		
Wet Density, pcf	127.5		
Weight of Moisture Sample (Wet), g.	854.0		
Weight of Moisture Sample (Dry), g.	789.7		
Moisture Content, %	8.1		
Dry Density, pcf	117.9		
Specific Gravity of Soil	2.7		
Degree of Saturation, %	51.3		

Time	Inital	30 min	1 hr	6 hrs	12 hrs	24 hrs
Dial Reading	0	-0.0033	-0.0033	--	--	-0.0035

Expansion Index $_{measured}$ = 0
Expansion Index $_{50}$ = 0.0

Expansion Index = 0

Expansion Potential Table	
Exp. Index	Potential Exp.
0 - 20	Very Low
21 - 50	Low
51 - 90	Medium
91 - 130	High
>130	Very High

SALEM engineering group, inc.

EXPANSION INDEX TEST
ASTM D4829

Project Name: Multi Family Project - Selma, CA
Project Number: 1-222-0679
Date Sampled: 7/6/22 & 7/7/22 Date Tested: 7/12/22
Sampled By: SEG Tested By: MC
Sample Location: B-23 @ 0 - 3'
Soil Description: Silty SAND (SM)

Trial #	1	2	3
Weight of Soil & Mold, g.	597.4		
Weight of Mold, g.	187.8		
Weight of Soil, g.	409.6		
Wet Density, pcf	123.5		
Weight of Moisture Sample (Wet), g.	863.0		
Weight of Moisture Sample (Dry), g.	791.9		
Moisture Content, %	9.0		
Dry Density, pcf	113.4		
Specific Gravity of Soil	2.7		
Degree of Saturation, %	49.8		

Time	Inital	30 min	1 hr	6 hrs	12 hrs	24 hrs
Dial Reading	0	-0.0023	-0.0023	--	--	-0.0029

Expansion Index $_{measured}$ = 0
Expansion Index $_{50}$ = 0.0

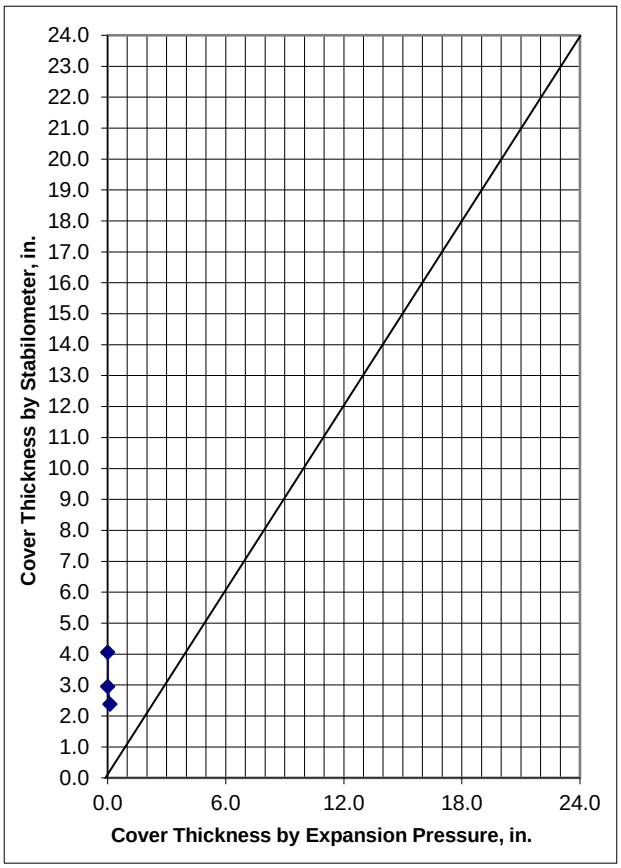
Expansion Index = 0

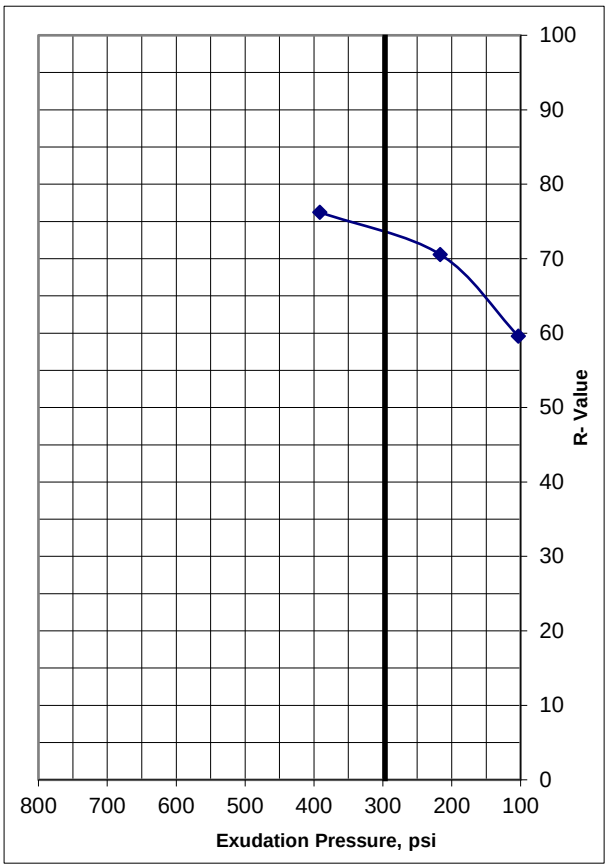
Expansion Potential Table	
Exp. Index	Potential Exp.
0 - 20	Very Low
21 - 50	Low
51 - 90	Medium
91 - 130	High
>130	Very High

SALEM engineering group, inc.

Resistance R-Value
and Expansion Pressure of Compacted Soils
ASTM D2844

Project Name: Multi Family Project - Selma, CA
Project Number: 1-222-0679
Date Sampled: 7/6/22 & 7/7/22 Date Tested: 7/13/22
Sampled By: SEG Tested By: BD
Sample Location: B-15 @ 0 - 3'
Soil Description: Silty SAND (SM)





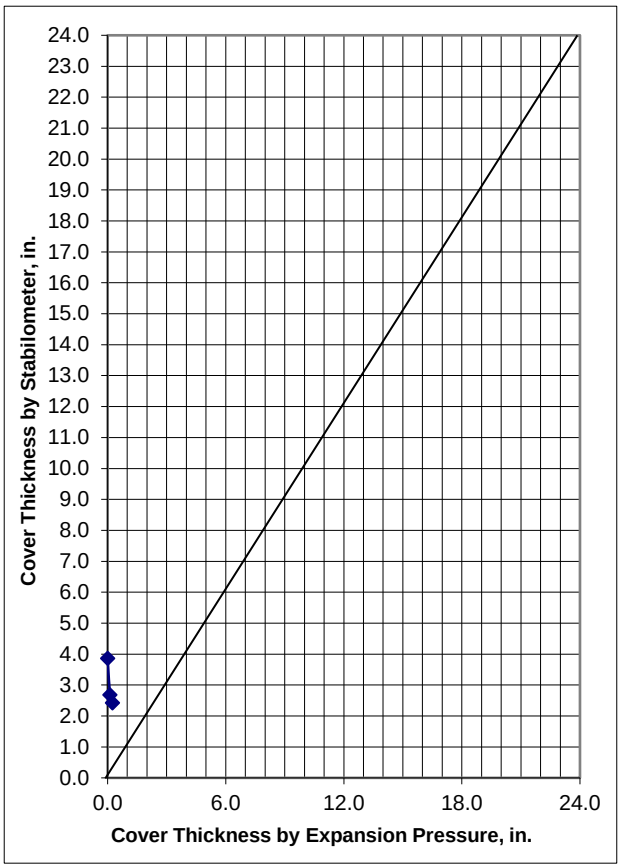
Specimen	1	2	3
Exudation Pressure, psi	391.4	216.8	103.3
Moisture at Test, %	7.8	8.2	9.2
Dry Density, pcf	124.7	124.7	123.6
Expansion Pressure, psf	13	0	0
Thickness by Stabilometer, in.	2.4	3.0	4.1
Thickness by Expansion Pressure, in.	0.1	0.0	0.0
R-Value by Stabilometer	76	71	60
R-Value by Expansion Pressure	N/A		
R-Value at 300 psi Exudation Pressure	73		

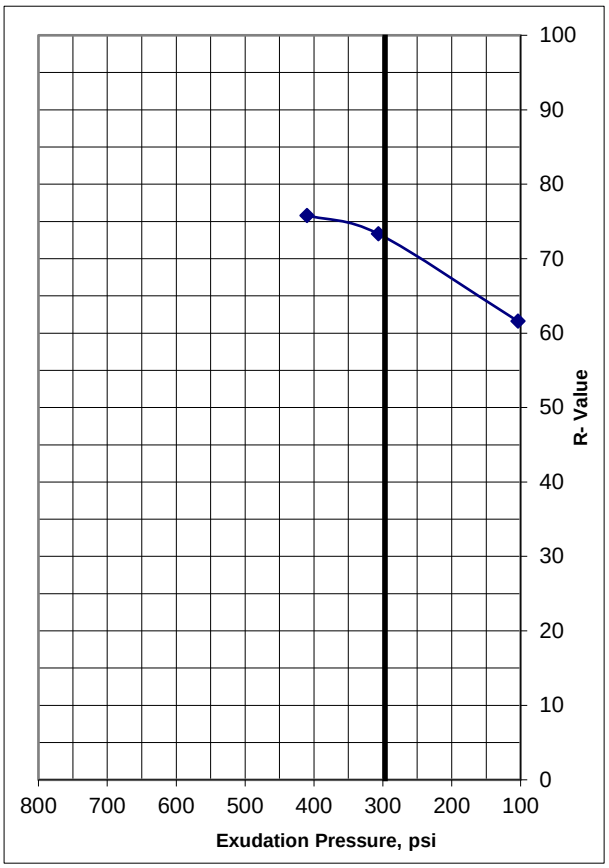
Controlling R-Value	**73**

SALEM engineering group, inc.

Resistance R-Value
and Expansion Pressure of Compacted Soils
ASTM D2844

Project Name: Multi Family Project - Selma, CA
Project Number: 1-222-0679
Date Sampled: 7/6/22 & 7/7/22 | Date Tested: 7/13/22
Sampled By: SEG | Tested By: BD
Sample Location: B-19 @ 0 - 3'
Soil Description: Silty SAND (SM)





Specimen	1	2	3
Exudation Pressure, psi	410.3	306.5	103.8
Moisture at Test, %	7.9	8.2	9.0
Dry Density, pcf	124.8	124.9	124.2
Expansion Pressure, psf	26	13	0
Thickness by Stabilometer, in.	2.4	2.7	3.9
Thickness by Expansion Pressure, in.	0.2	0.1	0.0
R-Value by Stabilometer	76	73	62
R-Value by Expansion Pressure	N/A		
R-Value at 300 psi Exudation Pressure	73		

Controlling R-Value	**73**

SALEM engineering group, inc.

CHEMICAL ANALYSIS

SO_4 - Modified CTM 417 & Cl - Modified CTM 417/422

Project Name: Multi Family Project - Selma, CA
Project Number: 1-222-0679
Date Sampled: 7/6/22 & 7/7/22 Date Tested: 7/11/22
Sampled By: SEG Tested By: MC
Soil Description: Silty SAND (SM)

Sample Number	Sample Location	Soluble Sulfate SO_4-S	Soluble Chloride Cl	pH
1a.	B-2 @ 0 - 3'	< 50 mg/kg	20 mg/kg	7.3
1b.	B-2 @ 0 - 3'	< 50 mg/kg	22 mg/kg	7.3
1c.	B-2 @ 0 - 3'	< 50 mg/kg	21 mg/kg	7.3
Average:		**< 50 mg/kg**	**21 mg/kg**	**7.3**

SALEM engineering group, inc.

CHEMICAL ANALYSIS

SO_4 - Modified CTM 417 & Cl - Modified CTM 417/422

Project Name: Multi Family Project - Selma, CA
Project Number: 1-222-0679
Date Sampled: 7/6/22 & 7/7/22 Date Tested: 7/11/22
Sampled By: SEG Tested By: MC
Soil Description: Silty SAND (SM)

Sample Number	Sample Location	Soluble Sulfate SO_4-S	Soluble Chloride Cl	pH
1a.	B-23 @ 0 - 3'	< 50 mg/kg	17 mg/kg	7.3
1b.	B-23 @ 0 - 3'	< 50 mg/kg	18 mg/kg	7.3
1c.	B-23 @ 0 - 3'	< 50 mg/kg	18 mg/kg	7.3
Average:		**< 50 mg/kg**	**18 mg/kg**	**7.3**

SALEM
engineering group, inc.

SOIL RESISTIVITY
CTM 643

Project Name: Multi Family Project - Selma, CA
Project Number: 1-222-0679
Sample Location: B-2 @ 0 - 3'
Soil Description: Silty SAND (SM)

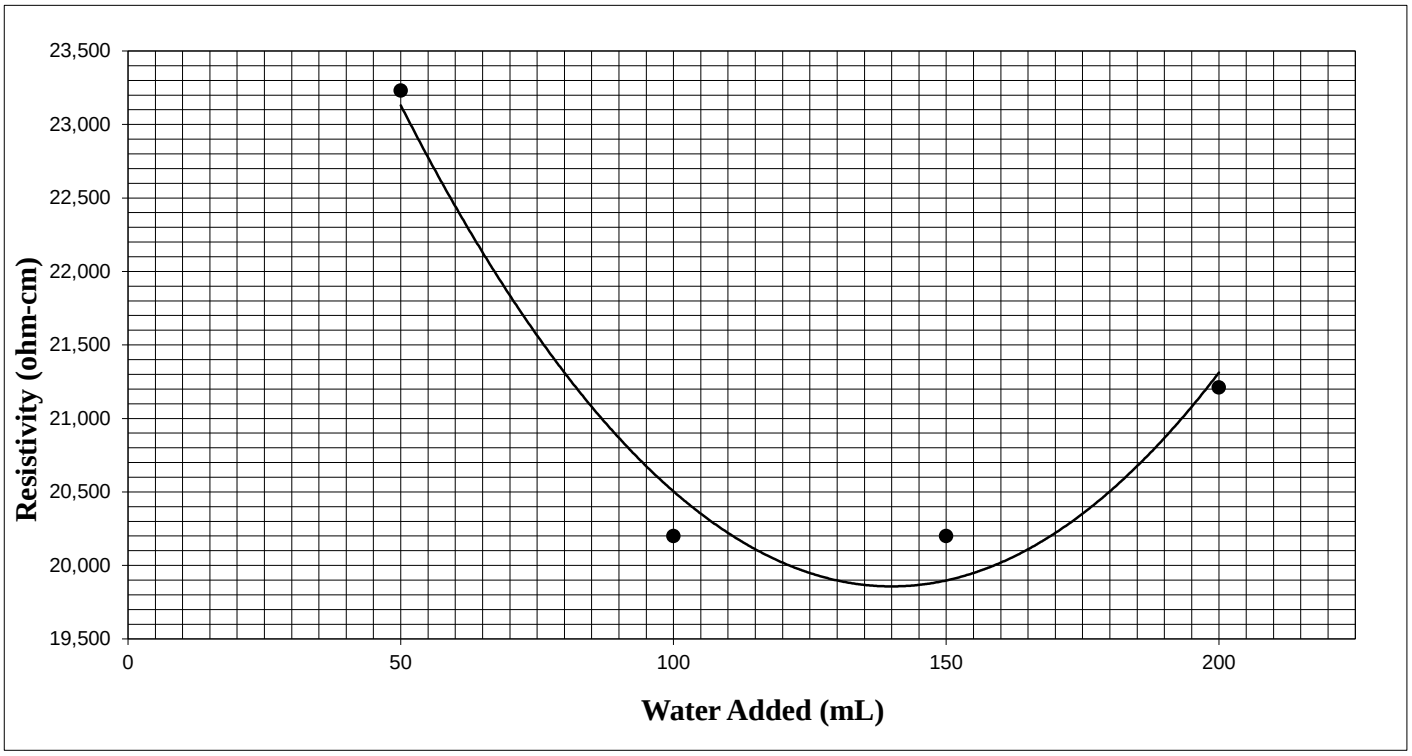
Date Sampled: 7/6/22 & 7/7/22
Sampled By: SEG
Date Tested: 7/12/22
Tested By: MC

Chloride Content: 21 mg/Kg
Sulfate Content: < 50 mg/Kg
Soil pH: 7.3

Initial Sample Weight: 700 gms
Test Box Constant: 1.010 cm

Test Data:

Trial #	Water Added (mL)	Meter Dial Reading	Multiplier Setting	Resistance (ohms)	Resistivity (ohm-cm)
1	50	2.3	10,000	23,000	23,231
2	100	2.0	10,000	20,000	20,201
3	150	2.0	10,000	20,000	20,201
4	200	2.1	10,000	21,000	21,211



Minimum Resistivity:	**19,858** ohm-cm

SALEM engineering group, inc.

SOIL RESISTIVITY
CTM 643

Project Name: Multi Family Project - Selma, CA
Project Number: 1-222-0679
Sample Location: B-23 @ 0 - 3'
Soil Description: Silty SAND (SM)

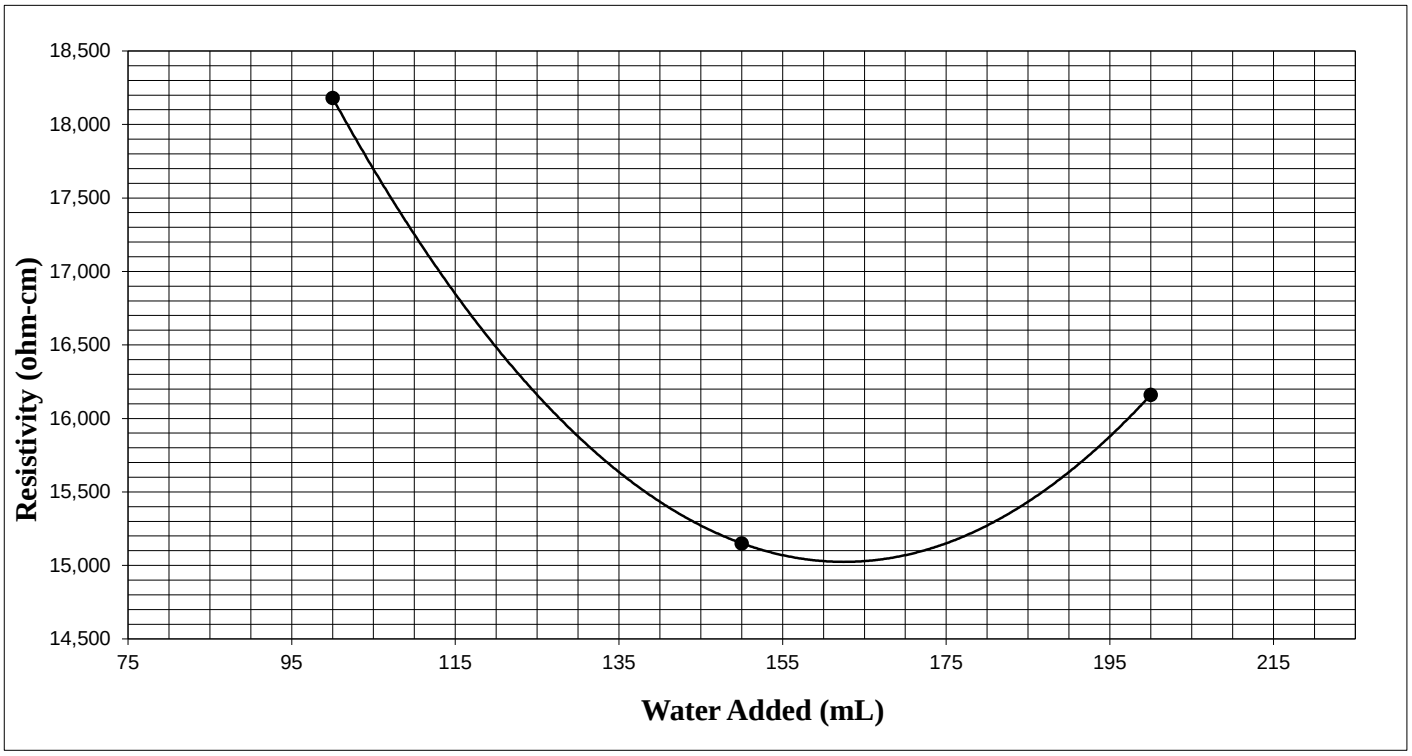
Date Sampled: 7/6/22 & 7/7/22
Sampled By: SEG
Date Tested: 7/12/22
Tested By: MC

Chloride Content: 18 mg/Kg
Sulfate Content: < 50 mg/Kg
Soil pH: 7.3

Initial Sample Weight: 700 gms
Test Box Constant: 1.010 cm

Test Data:

Trial #	Water Added (mL)	Meter Dial Reading	Multiplier Setting	Resistance (ohms)	Resistivity (ohm-cm)
1	100	1.8	10,000	18,000	18,181
2	150	1.5	10,000	15,000	15,151
3	200	1.6	10,000	16,000	16,161



Minimum Resistivity:	**15,023** ohm-cm

SALEM engineering group, inc.

APPENDIX

C

APPENDIX C
GENERAL EARTHWORK AND PAVEMENT SPECIFICATIONS

When the text of the report conflicts with the general specifications in this appendix, the recommendations in the report have precedence.

1.0 SCOPE OF WORK: These specifications and applicable plans pertain to and include all earthwork associated with the site rough grading, including, but not limited to, the furnishing of all labor, tools and equipment necessary for site clearing and grubbing, stripping, preparation of foundation materials for receiving fill, excavation, processing, placement and compaction of fill and backfill materials to the lines and grades shown on the project grading plans and disposal of excess materials.

2.0 PERFORMANCE: The Contractor shall be responsible for the satisfactory completion of all earthwork in accordance with the project plans and specifications. This work shall be inspected and tested by a representative of SALEM Engineering Group, Incorporated, hereinafter referred to as the Soils Engineer and/or Testing Agency. Attainment of design grades, when achieved, shall be certified by the project Civil Engineer. Both the Soils Engineer and the Civil Engineer are the Owner's representatives. If the Contractor should fail to meet the technical or design requirements embodied in this document and on the applicable plans, he shall make the necessary adjustments until all work is deemed satisfactory as determined by both the Soils Engineer and the Civil Engineer. No deviation from these specifications shall be made except upon written approval of the Soils Engineer, Civil Engineer, or project Architect.

No earthwork shall be performed without the physical presence or approval of the Soils Engineer. The Contractor shall notify the Soils Engineer at least 2 working days prior to the commencement of any aspect of the site earthwork.

The Contractor shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the Contractor shall defend, indemnify and hold the Owner and the Engineers harmless from any and all liability, real or alleged, in connection with the performance of work on this project, except for liability arising from the sole negligence of the Owner or the Engineers.

3.0 TECHNICAL REQUIREMENTS: All compacted materials shall be densified to no less that 90 percent of relative compaction (based on ASTM D1557 Test Method (latest edition), or as specified in the technical portion of the Soil Engineer's report. The location and frequency of field density tests shall be determined by the Soils Engineer. The results of these tests and compliance with these specifications shall be the basis upon which satisfactory completion of work will be judged by the Soils Engineer.

4.0 SOILS AND FOUNDATION CONDITIONS: The Contractor is presumed to have visited the site and to have familiarized himself with existing site conditions and the contents of the data presented in the Geotechnical Engineering Report. The Contractor shall make his own interpretation of the data contained in the Geotechnical Engineering Report and the Contractor shall not be relieved of liability for any loss sustained as a result of any variance between conditions indicated by or deduced from said report and the actual conditions encountered during the progress of the work.

5.0 DUST CONTROL: The work includes dust control as required for the alleviation or prevention of any dust nuisance on or about the site or the borrow area, or off-site if caused by the Contractor's operation either during the performance of the earthwork or resulting from the conditions in which the Contractor leaves the site. The Contractor shall assume all liability, including court costs of codefendants, for all claims related to dust or wind-blown materials attributable to his work. Site preparation shall consist of site clearing and grubbing and preparation of foundation materials for receiving fill.

6.0 CLEARING AND GRUBBING: The Contractor shall accept the site in this present condition and shall demolish and/or remove from the area of designated project earthwork all structures, both surface and subsurface, trees, brush, roots, debris, organic matter and all other matter determined by the Soils Engineer to be deleterious. Such materials shall become the property of the Contractor and shall be removed from the site.

Tree root systems in proposed improvement areas should be removed to a minimum depth of 3 feet and to such an extent which would permit removal of all roots greater than 1 inch in diameter. Tree roots removed in parking areas may be limited to the upper 1½ feet of the ground surface. Backfill of tree root excavations is not permitted until all exposed surfaces have been inspected and the Soils Engineer is present for the proper control of backfill placement and compaction. Burning in areas which are to receive fill materials shall not be permitted.

7.0 SUBGRADE PREPARATION: Surfaces to receive Engineered Fill and/or building or slab loads shall be prepared as outlined above, scarified to a minimum of 12 inches, moisture-conditioned as necessary, and compacted to 92 percent relative compaction.

Loose soil areas and/or areas of disturbed soil shall be moisture-conditioned as necessary and compacted to 92 percent relative compaction. All ruts, hummocks, or other uneven surface features shall be removed by surface grading prior to placement of any fill materials. All areas which are to receive fill materials shall be approved by the Soils Engineer prior to the placement of any fill material.

8.0 EXCAVATION: All excavation shall be accomplished to the tolerance normally defined by the Civil Engineer as shown on the project grading plans. All over-excavation below the grades specified shall be backfilled at the Contractor's expense and shall be compacted in accordance with the applicable technical requirements.

9.0 FILL AND BACKFILL MATERIAL: No material shall be moved or compacted without the presence or approval of the Soils Engineer. Material from the required site excavation may be utilized for construction site fills, provided prior approval is given by the Soils Engineer. All materials utilized for constructing site fills shall be free from vegetation or other deleterious matter as determined by the Soils Engineer.

10.0 PLACEMENT, SPREADING AND COMPACTION: The placement and spreading of approved fill materials and the processing and compaction of approved fill and native materials shall be the responsibility of the Contractor. Compaction of fill materials by flooding, ponding, or jetting shall not be permitted unless specifically approved by local code, as well as the Soils Engineer. Both cut and fill shall be surface-compacted to the satisfaction of the Soils Engineer prior to final acceptance.

11.0 SEASONAL LIMITS: No fill material shall be placed, spread, or rolled while it is frozen or thawing, or during unfavorable wet weather conditions. When the work is interrupted by heavy rains, fill

operations shall not be resumed until the Soils Engineer indicates that the moisture content and density of previously placed fill is as specified.

12.0 DEFINITIONS - The term "pavement" shall include asphaltic concrete surfacing, untreated aggregate base, and aggregate subbase. The term "subgrade" is that portion of the area on which surfacing, base, or subbase is to be placed.

The term “Standard Specifications”: hereinafter referred to, is the most recent edition of the Standard Specifications of the State of California, Department of Transportation. The term "relative compaction" refers to the field density expressed as a percentage of the maximum laboratory density as determined by ASTM D1557 Test Method (latest edition).

13.0 PREPARATION OF THE SUBGRADE - The Contractor shall prepare the surface of the various subgrades receiving subsequent pavement courses to the lines, grades, and dimensions given on the plans. The upper 12 inches of the soil subgrade beneath the pavement section shall be compacted to a minimum relative compaction of 95 percent based upon ASTM D1557. The finished subgrades shall be tested and approved by the Soils Engineer prior to the placement of additional pavement courses.

14.0 AGGREGATE BASE - The aggregate base material shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate base material shall conform to the requirements of Section 26 of the Standard Specifications for Class 2 material, ¾-inch or 1½-inches maximum size. The aggregate base material shall be compacted to a minimum relative compaction of 95 percent based upon ASTM D1557. The aggregate base material shall be spread in layers not exceeding 6 inches and each layer of aggregate material course shall be tested and approved by the Soils Engineer prior to the placement of successive layers.

15.0 AGGREGATE SUBBASE - The aggregate subbase shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate subbase material shall conform to the requirements of Section 25 of the Standard Specifications for Class 2 Subbase material. The aggregate subbase material shall be compacted to a minimum relative compaction of 95 percent based on ASTM D1557, and it shall be spread and compacted in accordance with the Standard Specifications. Each layer of aggregate subbase shall be tested and approved by the Soils Engineer prior to the placement of successive layers.

16.0 ASPHALTIC CONCRETE SURFACING - Asphaltic concrete surfacing shall consist of a mixture of mineral aggregate and paving grade asphalt, mixed at a central mixing plant and spread and compacted on a prepared base in conformity with the lines, grades, and dimensions shown on the plans. The viscosity grade of the asphalt shall be PG 64-10, unless otherwise stipulated or local conditions warrant more stringent grade. The mineral aggregate shall be Type A or B, ½ inch maximum size, medium grading, and shall conform to the requirements set forth in Section 39 of the Standard Specifications. The drying, proportioning, and mixing of the materials shall conform to Section 39. The prime coat, spreading and compacting equipment, and spreading and compacting the mixture shall conform to the applicable chapters of Section 39, with the exception that no surface course shall be placed when the atmospheric temperature is below 50 degrees F. The surfacing shall be rolled with a combination steel-wheel and pneumatic rollers, as described in the Standard Specifications. The surface course shall be placed with an approved self-propelled mechanical spreading and finishing machine.

Attachment D
Project Traffic Impact Study and VMT Analysis

Nebraska-Highland Multifamily and Retail Development

Transportation Impact Study
August 14, 2023

Prepared for:
City of Selma

Prepared by:
VRPA Technologies, Inc.
4630 W. Jennifer, Suite 105
Fresno, CA 93722

Nebraska-Highland Multifamily and Retail Development
Transportation Impact Study

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1.0 Introduction

1.1 Description of the Region/Project

This Transportation Impact Study (TIS) has been prepared for the purpose of analyzing traffic conditions of proposed mixed used developments in City of Selma. The Project consist of multifamily residential units along with commercial and retail development and park. The Project is located at east of Highland Avenue and north of Nebraska Avenue in the City of Selma. Figure 1-1 shows the site's regional context. Figure 1-2 shows the Project location within City of Selma. Figure 1-3 shows the site plan of the proposed Project. The Project consist of following developments:

- ✓ Multi-Family Residential Development : 144 d.u.
- ✓ General Commercial/Retail: 32,670 s.f.
- ✓ Park: 0.84 acres

The retail development is on 3.75 acres. For transportation impact analysis purposes, this will be assumed to be 32,670 sq. ft. of retail (assuming a 0.20 floor area ratio).

1.1.1 *Project Access*

The access for the residential portion of the site will be provided as one (1) primary access point along Nebraska Avenue and emergency access point to Fig Street. Access for the retail portion of the site will be provided by a separate access point on Nebraska Avenue and that is to be constructed during future commercial development.

1.1.2 *Study Area*

The following intersections included in this TIS were determined in consultation with City of Selma and Caltrans. They include:

Intersections

- ✓ Rose Avenue/ Highland Avenue
- ✓ Nebraska Avenue/ Project Access
- ✓ Nebraska Avenue/ Highland Avenue
- ✓ Nebraska Avenue/ Mitchell Avenue
- ✓ 2nd Avenue/ SR 99 SB Ramps
- ✓ 2nd Avenue/ SR 99 NB Ramps
- ✓ Floral Avenue/ SR 99 SB Off Ramp
- ✓ Floral Avenue/ SR 99 NB On Ramp
- ✓ Floral Avenue/ Highland Avenue
- ✓ Floral Avenue/ SR 99 NB Off Ramp
- ✓ Nebraska Avenue/ Thompson Avenue

1.1.3 *Study Scenarios*

The study time periods for the traffic analysis will include the weekday AM and PM peak hours determined between 7:00 and 9:00 AM and between 4:00 and 6:00 PM. For traffic analysis purposes, the entire project will be assumed to be built on opening day in 2023, even though it is expected that the residential component will be built first and the commercial portion will be built later. This will allow the entire project to be cleared for development with the intent that if the commercial development increases from what was proposed in the traffic analysis. Level of service analysis for the AM and PM peak hours will be analyzed for the following scenarios:

- ✓ Existing Conditions (2022)- Baseline
- ✓ Existing Plus Project Conditions
- ✓ Opening Year (2023) With Project and Cumulative Development
- ✓ Horizon Year (2046) Without Project Traffic
- ✓ Horizon Year (2046) With Project Traffic

1.2 Methodology

When preparing a TIS, guidelines set by affected agencies are followed. In analyzing street and intersection capacities the level of service (LOS) methodologies from Highway Capacity Manual (HCM) were applied. Transportation agencies quantitatively assess a street and highway system's performance by rating intersections on a scale of LOS "A" through "F". In addition, safety concerns are analyzed to determine the need for appropriate mitigation resulting from increased traffic near sensitive uses.

1.2.1 *Intersection Analysis*

Intersection LOS analysis was conducted using the Synchro 10 software program. Synchro 10 supports the Highway Capacity Manual (HCM) 6th Edition methodologies. It should be noted that out of 11 intersections, four of them are currently signalized and five of them are unsignalized with stop control while one of the intersection is doesn't have any sign control in current scenario.

Tables 1-1 and 1-2 define LOS "A" to "F" by indicating the ranges in the amounts of average delay for a vehicle at signalized and unsignalized intersections for each level of service ranging from LOS "A" to "F".

When an unsignalized intersection does not meet acceptable LOS standards, the investigation of the need for a traffic signal is typical. The California Manual on Uniform traffic Control Devices for Streets and Highways (California MUTCD) introduces standards for determining the need for traffic signals. The California MUTCD indicates that the satisfaction of one or more traffic signal

warrant doesn't in itself require the installation of traffic signal. In addition to warrant analysis, an engineering study of current or expected traffic conditions should be conducted to determine whether the installation of a traffic signal us justified. The California MUTCD Peak Hour Warrant (Warrant 3) was used to determine if a traffic signal is warranted at unsignalized to fall below current LOS standards.

1.3 Policies to Maintain Level of Service

An important goal is to maintain acceptable level of service along the highways, street, and road network. For the purposes of this TIS, LOS D was selected as the design standard for intersection operations for both the City of Selma and Caltrans intersections. Therefore, intersections operating at LOS E or F were considered for improvements.

1.4 VMT Analysis

Senate Bill 743 (SB 743) went into effect throughout California on July 1, 2020. This legislation changed the performance measure for CEQA transportation studies from level of service to vehicle miles traveled (VMT). An assessment of potential VMT impacts associated with the Project is provided Appendix D.

Table 1-1
Signalized Intersections Level of Service Definitions (Highway Capacity Manual)

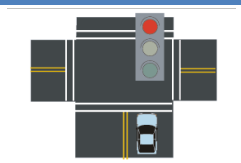
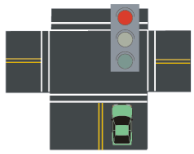
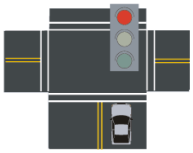
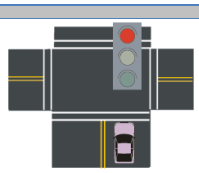
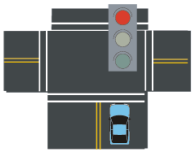
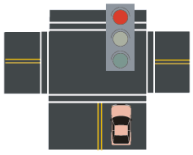
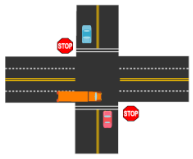
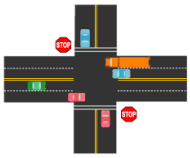
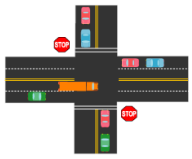
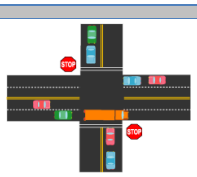
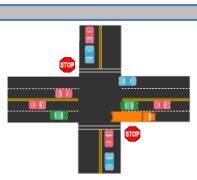
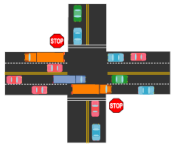
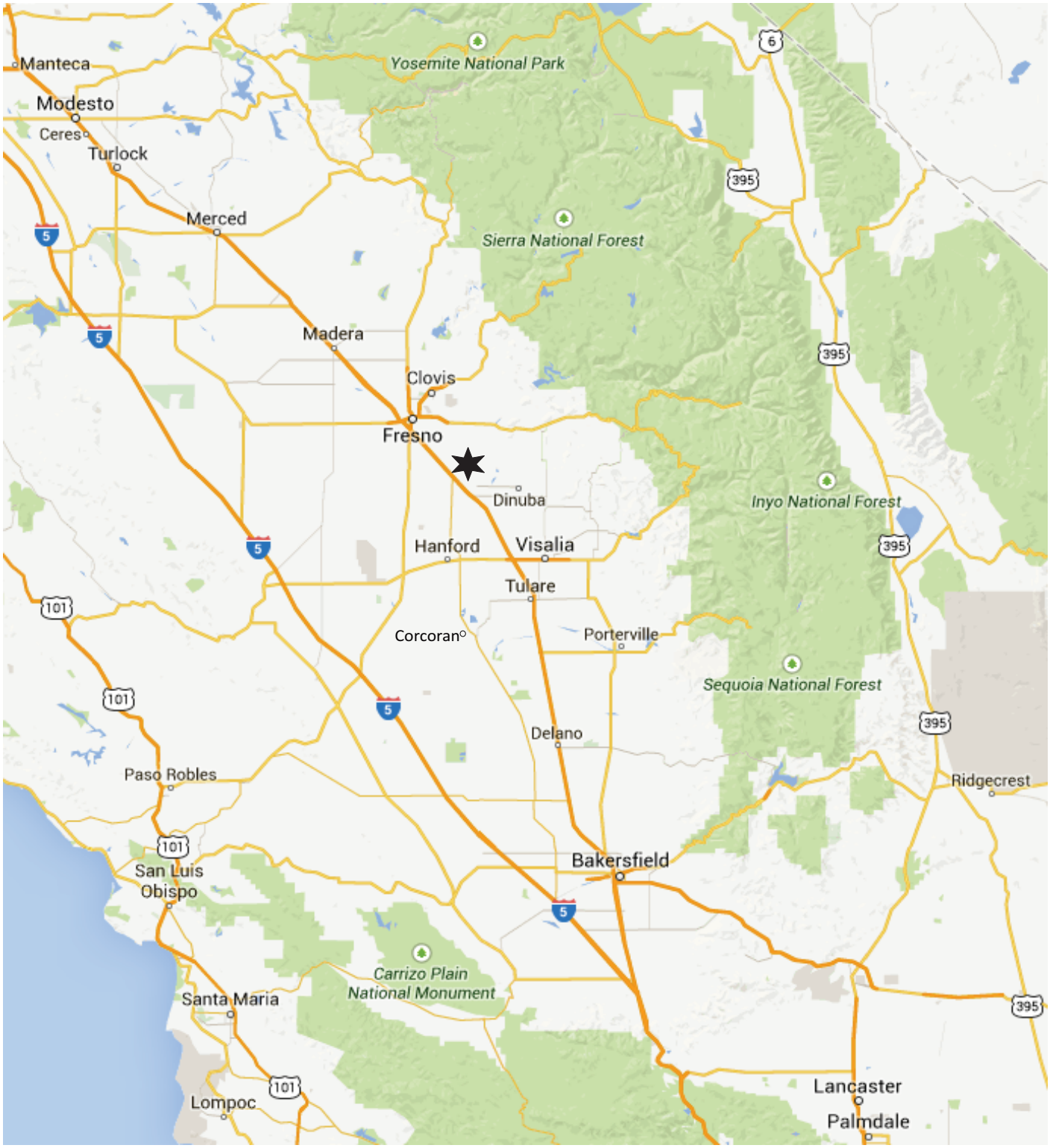
LEVEL OF SERVICE	DEFINITION		AVERAGE TOTAL DELAY (sec/veh)
A	Describes operations with very low delay. This level of service occurs when there is no conflicting traffic for a minor street.		≤ 10.0
B	Describes operations with moderately low delay. This level generally occurs with a small amount of conflicting traffic causing higher levels of average delay.		> 10.0 - 20.0
C	Describes operations with average delays. These higher delays may result from a moderate amount of minor street traffic. Queues begin to get longer.		> 20.0 - 35.0
D	Describes a crowded operation, with below average delays. At level D, the influence of congestion becomes more noticeable. Longer delays may result from shorter gaps on the mainline and an increase of minor street traffic. The queues of vehicles are increasing.		> 35.0 - 55.0
E	Describes operations at or near capacity. This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor gaps for the minor street to cross and large queues.		> 55.0 - 80.0
F	Describes operations that are at the failure point. This level, considered to be unacceptable to most drivers, often occurs with over- saturation, that is, when arrival flow rates exceed the capacity of the intersection. Insufficient gaps of suitable size exist to allow minor traffic to cross the intersection safely.		> 80.0

Table 1-2
Unsignalized Intersections Level of Service Definitions (Highway Capacity Manual)

LEVEL OF SERVICE	DEFINITION		AVERAGE TOTAL DELAY (sec/veh)
A	No delay for stop-controlled approaches.		0 - 10.0
B	Describes operations with minor delay.		> 10.0 - 15.0
C	Describes operations with moderate delays.		> 15.0 - 25.0
D	Describes operations with some delays.		> 25.0 - 35.0
E	Describes operations with high delays and long queues.		> 35.0 - 50.0
F	Describes operations with extreme congestion, with very high delays and long queues unacceptable to most drivers.		> 50.0

Nebraska- Highland Multifamily and Retail Development
Regional Location

Figure 1-1



LEGEND

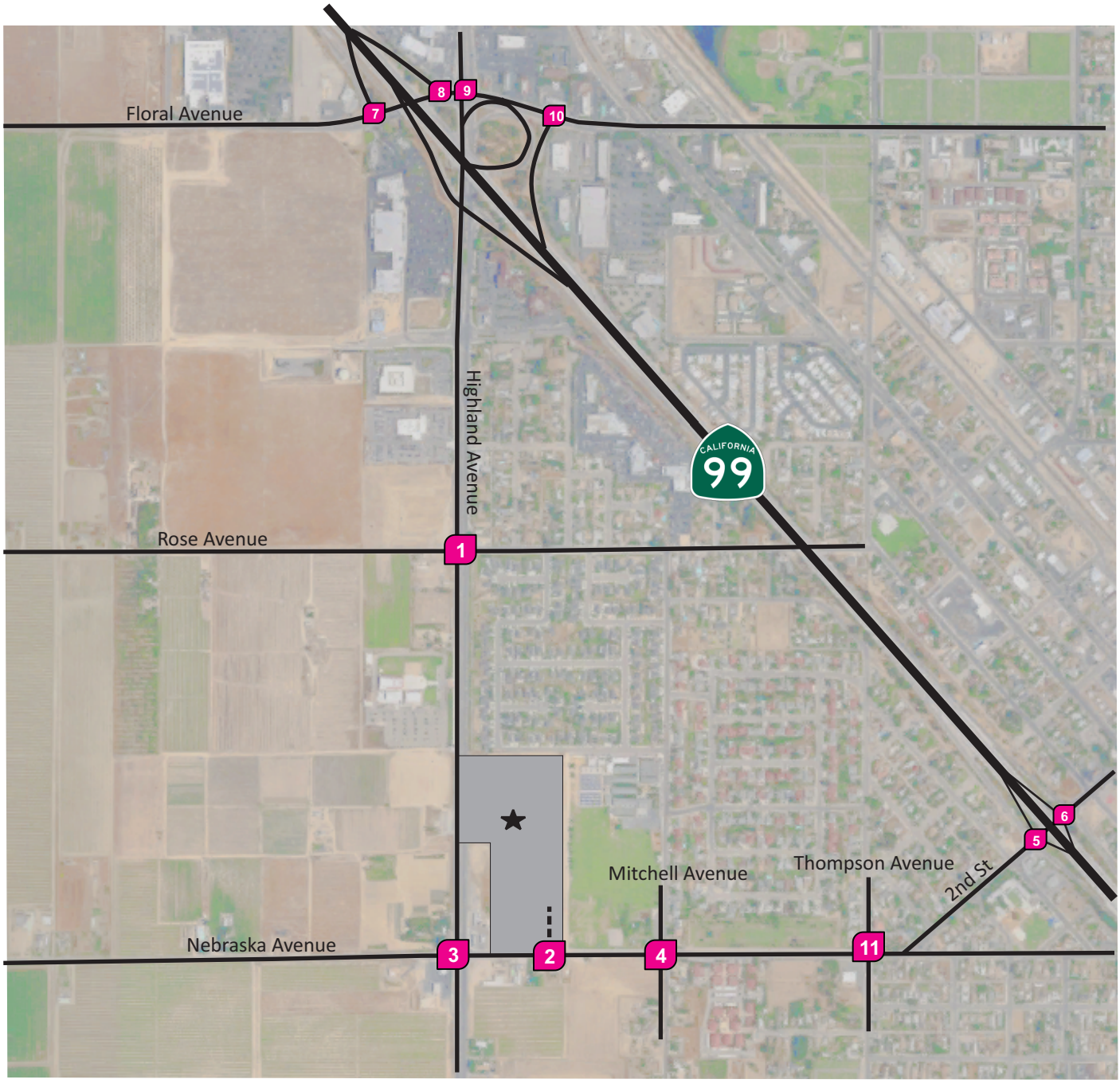
★ Project location

North

VRPA TECHNOLOGIES, INC.

Nebraska- Highland Multifamily and Retail Development
Project Location

Figure 1-2



LEGEND

- ★ Project Site
- Freeway
- Arterial Roadway/Ramp
- X Study Intersections
- xx% Trip Distribution

VRPA TECHNOLOGIES, INC.

SITE PLAN

BEING A DIVISION OF A PORTION OF THE WEST 1/2 OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 6, TOWNSHIP 16 SOUTH, RANGE 22 EAST, MOUNT DIABLO BASE & MERIDIAN IN THE CITY OF SELMA, COUNTY OF FRESNO, STATE OF CALIFORNIA.

SEPTEMBER, 2022

OWNERS: KARAMJIT SINGH NIJJAR
2850 NEBRASKA AVE. (ALSO SITE ADDRESS)
SELMA CA. 93662

ENGINEER: AW ENGINEERING
810 W. ACEQUIA AVE.
VISALIA, CA. 93291

PROJECT INFO:

LOCATION:	NE COR. NEBRASKA & HIGHLAND
TOTAL AREA:	APARTMENT COMPLEX – 10.57 AC. COMMUNITY PARK – 0.95 AC.
EXISTING PROPERTY USE:	VACANT
PROPOSED PROPERTY USE:	RESIDENTAIL/COMMUNITY PARK
A.P.N.:	388–030–260
ZONING:	R–1–7
FLOOD ZONE:	"X"
SEWAGE:	SKF DISTRICT
WATER:	CAL WATER
GAS & ELEC:	PG&E
COMMUNCATION:	XFINITY

APARTMENTS:

BUILDING "A"

1 BEDROOM UNITS	–	12	(PH1 – 4 / PH 2 – 8)
2 BEDROOM UNITS	–	84	(PH1 – 28 / PH2 – 56)

BUILDING "B"

1 BEDROOM UNITS	–	12	(PH1 – 8 /PH2 – 4)
2 BEDROOM UNITS	–	36	(PH1 – 24 / PH2 – 12)
TOTAL UNITS	–	144	

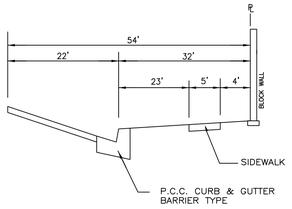
PARKING:

COVERED PARKING – 144

HANDICAP PARKING	–	15
STANDARD PARKING	–	294
TOTAL PARKING	–	309

OPEN SPACE

10.57 AC	TOTAL AREA
– 2.40 AC±	BUILDING AREAS
– 3.28 AC±	PARKING AREA
4.89 AC±	LANDSCAPING/SIDEWALK/ON–SITE PARK
46%	OPEN AREA PERCENTAGE



HIGHLAND AVE – STATE HWY 43

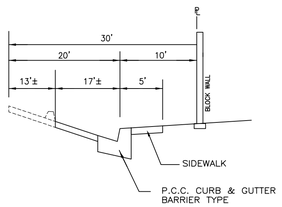
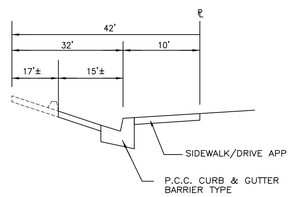
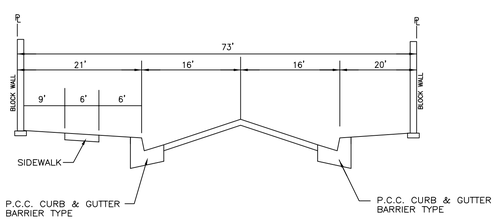


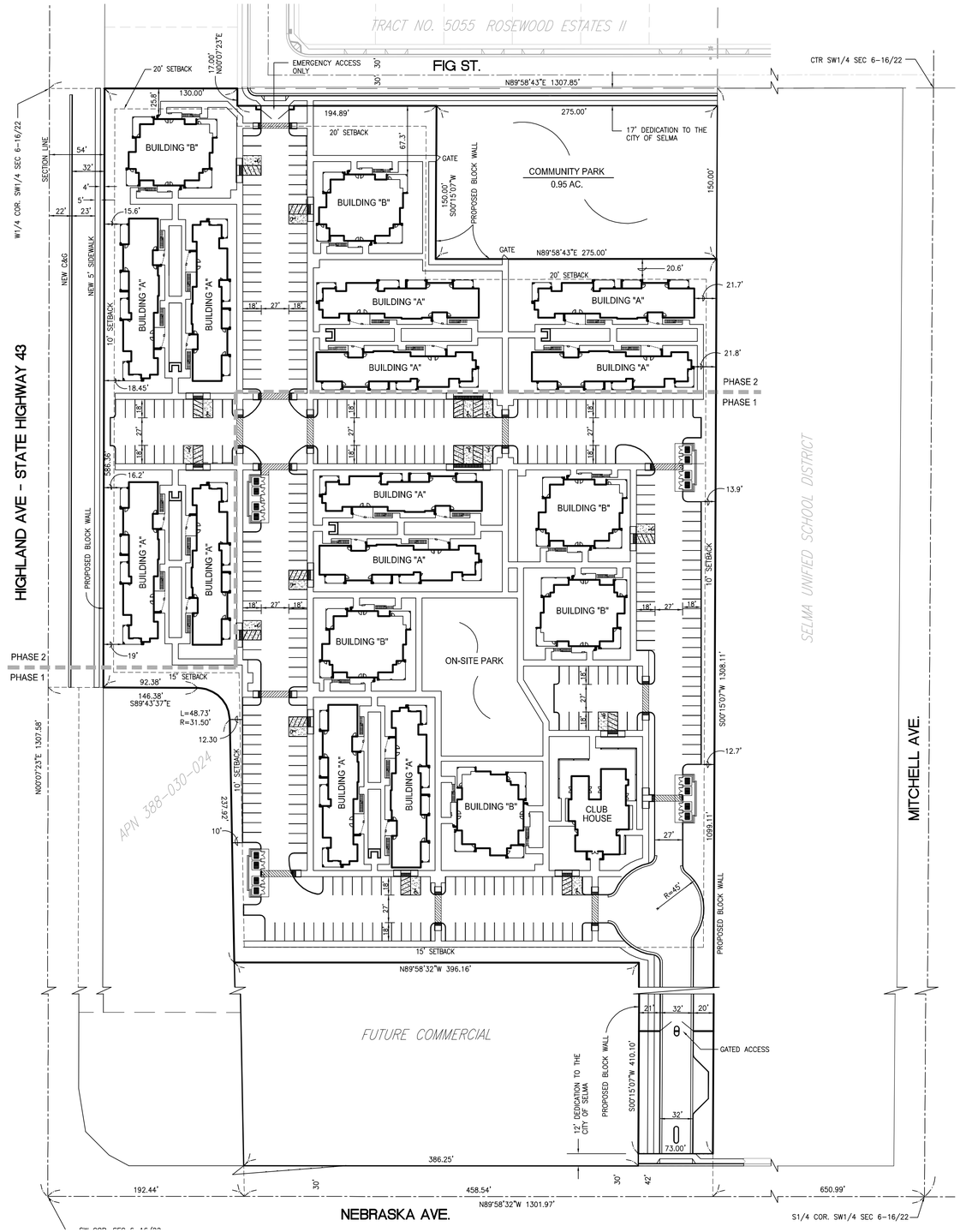
FIG ST.



NEBRASKA AVE

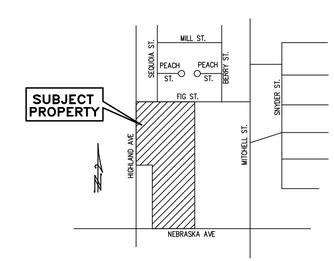


ACCESS DRIVE/ENTRANCE



BASIS OF BEARINGS

THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SEC. 6, T.16S., R.22E., M.D.B.&M. TAKEN AS N89°58'32"W AS PER RECORD OF SURVEY RECORDED IN BOOK 45 OF RECORD OF SURVEYS AT PAGE 4 FCR



Vicinity Map

NO SCALE

SITE PLAN

SCALE: AS NOTED	REV. NO.	REVISIONS	REV. BY / DATE
DATE: 9–28–22			
DRAWN BY: BM			
CHECKED BY:			

APPROVED BY

JESSE ALLEN WILLIAMS R.C.E. 64742

REGISTERED PROFESSIONAL ENGINEER JESSE A. WILLIAMS No. 64742 Exp. 6/30/23 CIVIL STATE OF CALIFORNIA

A.W. ENGINEERING
724 N. BEN MADDOX WAY SUITE A
VISALIA, CA. 93292

FOR

JAY SINGH

HIGHLAND AVE MULTI-FAMILY PROJECT
SELMA, CA.

SCALE: AS NOTED

JOB #: 21019

FLOOD ZONE: X

DRAWN BY: BM

SHEET 1 OF 1 SHEETS

2.0 Existing Conditions

2.1 Existing Traffic Counts and Roadway Geometrics

The first step toward assessing Project traffic impacts is to assess existing traffic conditions. Existing AM and PM peak hour turning movements were collected at each Project intersection by National Data and Surveying Services. Traffic counts were conducted for the peak hour periods of 7:00-9:00 AM and 4:00-6:00 PM for all key intersections in 2022. Based on recent travel trends in the San Joaquin Valley, the 2022 existing counts were considered representative of typical conditions and no adjustments were considered to be needed for the effects of the COVID pandemic.

The existing lane geometry at study area intersections is shown in Figure 2-1. Figures 2-2 and 2-3 shows existing traffic volumes for the AM and PM peak hours in the study area.

Traffic count data worksheets are provided in Appendix A.

2.2 Affected Streets and Highways

Street and highway intersections and segments near and adjacent to the Project site were analyzed to determine levels of service utilizing HCM-based methodologies described previously. The study intersections included in this TIS are listed below.

Intersections

- ✓ Rose Avenue/ Highland Avenue
- ✓ Nebraska Avenue/ Project Access
- ✓ Nebraska Avenue/ Highland Avenue
- ✓ Nebraska Avenue/ Mitchell Avenue
- ✓ 2nd Avenue/ SR 99 SB Ramps
- ✓ 2nd Avenue/ SR 99 NB Ramps
- ✓ Floral Avenue/ SR 99 SB Off Ramp
- ✓ Floral Avenue/ SR 99 NB On Ramp
- ✓ Floral Avenue/ Highland Avenue
- ✓ Floral Avenue/ SR 99 NB Off Ramp
- ✓ Nebraska Avenue/ Thompson Avenue

2.3 Level of Service

2.3.1 *Intersection Capacity Analysis*

All intersection LOS analyses were estimated using Synchro 10 Software. Various roadway

geometrics, traffic volumes, and properties (peak hour factors, storage pocket length, etc.) were input into the Synchro 10 Software program to accurately determine the travel delay and LOS for each Study scenario. The intersection LOS and delays reported represent the 6th Edition HCM outputs. Synchro assumptions, listed below, show the various Synchro inputs and methodologies used in the analysis.

- ✓ **Lane Geometry**
  - Storage lengths for turn lanes for existing intersections were obtained from aerial photos and rounded to the nearest 25 feet.
  - VRPA conducted an aerial/field study of the specified intersections and segments to verify lane geometry and intersection control.

- ✓ **Traffic Conditions**
  - Peak hour factors (PHF) for each intersection approach were obtained from traffic counts in the study area and were utilized for Existing Conditions and Opening Year with and without Project conditions. For all future scenarios, a PHF of 0.92 was applied unless the existing PHF was greater than 0.92, as this was recommended value in HCM.
  - Heavy vehicle percentages were applied as follows and are based on HCM default (3%)
  - Roadway link speed limits were observed in the field and input into the Synchro network to determine roadway link speeds.
  - Traffic Count conducted in the year 2022 were applied growth factor of 2% to determine the traffic counts for future design year 2046.

Table 2-1 shows the intersection LOS for the existing conditions. Results of the analysis show that the study intersections currently operate at LOS D or better except Highland and Rose avenue during PM Peak hour that operates at LOS F. Second Avenue and SR 99 NB Ramps are assumed to have LOS D although it has higher delays as it runs without interruption and signal warrant is not met. Synchro 10 (HCM 6th Edition) Worksheets are provided in Appendix B.

2.3.2 *Queuing Analysis*

Queuing analysis was performed for the signalized and unsignalized intersections and following assumptions were made during analysis:

- 95th feet queue length from synchro was considered for queuing estimates of signalized intersections.
- HCM 95th percentile vehicle was multiplied by 25 ft for stop controlled intersections to determine the Queue in feet.

Table 2-2 provides a queue length summary for all approaches at the study intersection for Existing Conditions.

Table 2-1
Nebraska Highland Multifamily and Retail Development
Existing Intersections Operation

INTERSECTION	CONTROL	TARGET LOS	PEAK HOUR	EXISTING	
				DELAY	LOS
Highland Avenue and Rose Avenue	Two-way Stop	D	AM	32.2	D
			PM	**98.3**	**F**
Nebraska Avenue and Project Access	One way Stop	D	AM	DOESN'T EXIST	
			PM		
Nebraska Avenue and Highland Avenue	Signalized	D	AM	10.3	B
			PM	11.9	B
Nebraska Avenue and Mitchell Avenue	All way Stop	D	AM	8.6	A
			PM	10.0	A
Second Avenue and SR 99 SB Ramps	Two way Stop	D	AM	29.4	D
			PM	**59.0**	**D***
Second Avenue and SR 99 NB Ramps	One way Stop	D	AM	21.4	C
			PM	24.8	C
Floral Avenue and SR 99 SB Off ramps	Signalized	D	AM	12.1	B
			PM	13.8	B
Floral Avenue and SR 99 NB On Ramps	No Sign Control	D	AM	N/A	A
			PM	N/A	A
Floral Avenue and Highland Avenue	Signalized	D	AM	15.9	B
			PM	18.0	B
Floral Avenue and SR 99 NB Off Ramps	Signlaized	D	AM	13.1	B
			PM	11.9	B
Nebraska Avenue and Thompson Avenue	All way Stop	D	AM	10.4	B
			PM	10.4	B

DELAY is measured in seconds

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

For signalized intersections, delay results show the average for the entire intersection. For two-way and All way stop controlled intersections, delay results show the delay for the worst movement.

HCM 6th doesn't support the speed limit of 65mph, so 55mph is considered for the analysis purpose.

D*- LOS D is assumed as the traffic runs without interruption and doesn't need improvements

Table 2-2
Nebraska Highland Multifamily and Retail Development
Existing Queuing Operation

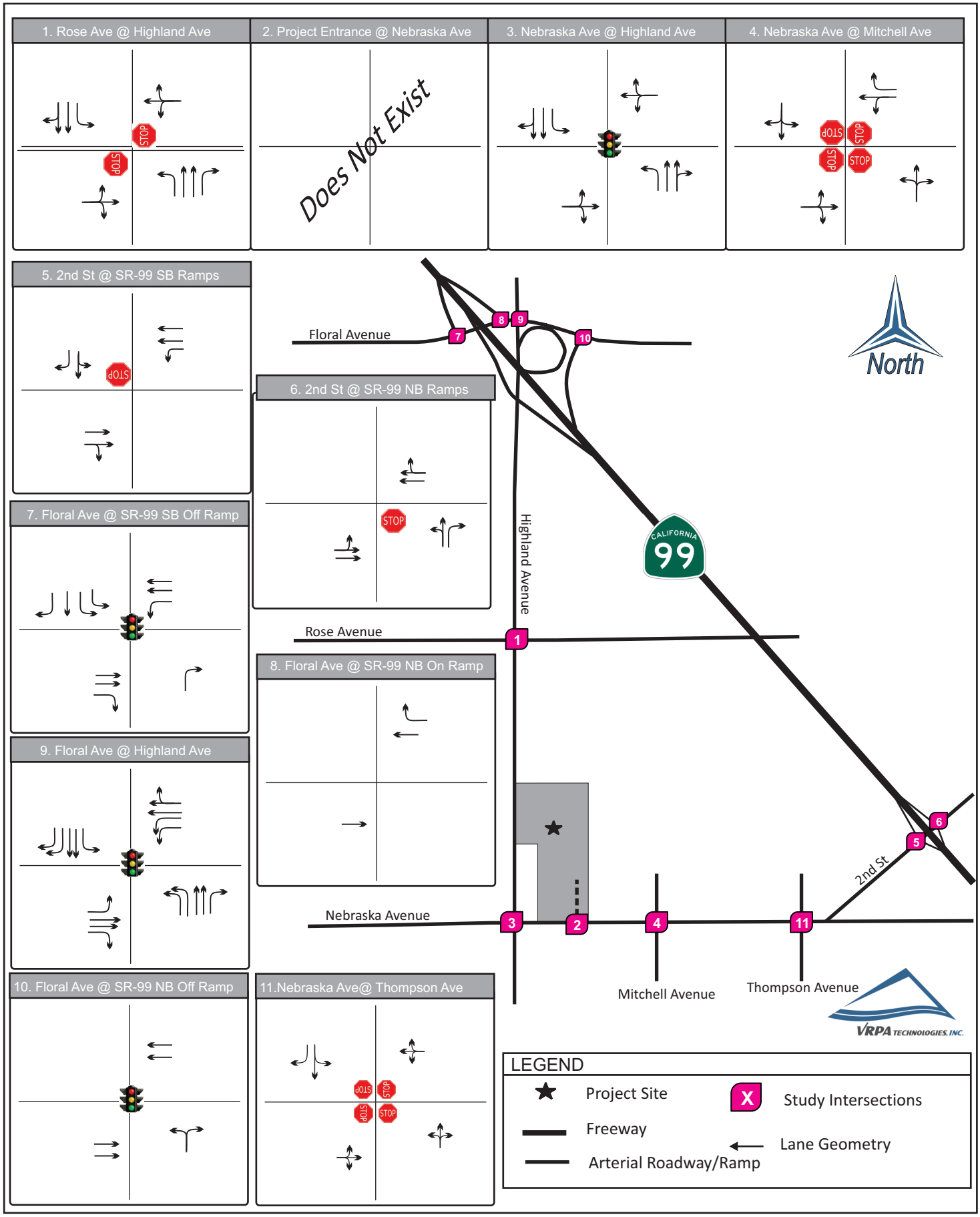
INTERSECTION	INTERSECTION APPROACH	AVAILABLE STORAGE	EXISTING CONDITIONS	
			AM QUEUE	PM QUEUE
Highland Avenue and Rose Avenue	WB Left	N/A	40.0	95.0
	SB Left	50.0	7.5	22.5
Nebraska Avenue and Highland Avenue	NB Left	200.0	25.0	21.0
	SB Left	125.0	29.0	88.0
Second Avenue and SR 99 SB Ramps	SB Left	200.0	67.5	135.0
	WB Left	175.0	7.5	10.0
Second Avenue and SR 99 NB Ramps	EB left	N/A	7.5	7.5
	NB left	325.0	15.0	20.0
Floral Avenue and SR 99 SB Off ramps	EB Right	100.0	0.0	11.0
	WB Left	175.0	56.0	119.0
	SB Left	400.0	49.0	74.0
	SB Right	400.0	3.0	24.0
Highland Avenue & Floral Avenue	EB Left	100.0	73.0	150.0
	EB Right	125.0	18.0	46.0
	WB Left	150.0	7.0	6.0
	NB Left	175.0	42.0	59.0
	NB Right	75.0	33.0	45.0
	SB Left	125.0	32.0	75.0
	SB Right	100.0	29.0	35.0
SR 99 NB Off Ramps and Floral Ave	NB Left	35.0	142.0	129.0
	NB Right	35.0	31.0	25.0

QUEUE is measured in feet

Nebraska- Highland Multifamily and Retail Development

Existing Lane Geometry

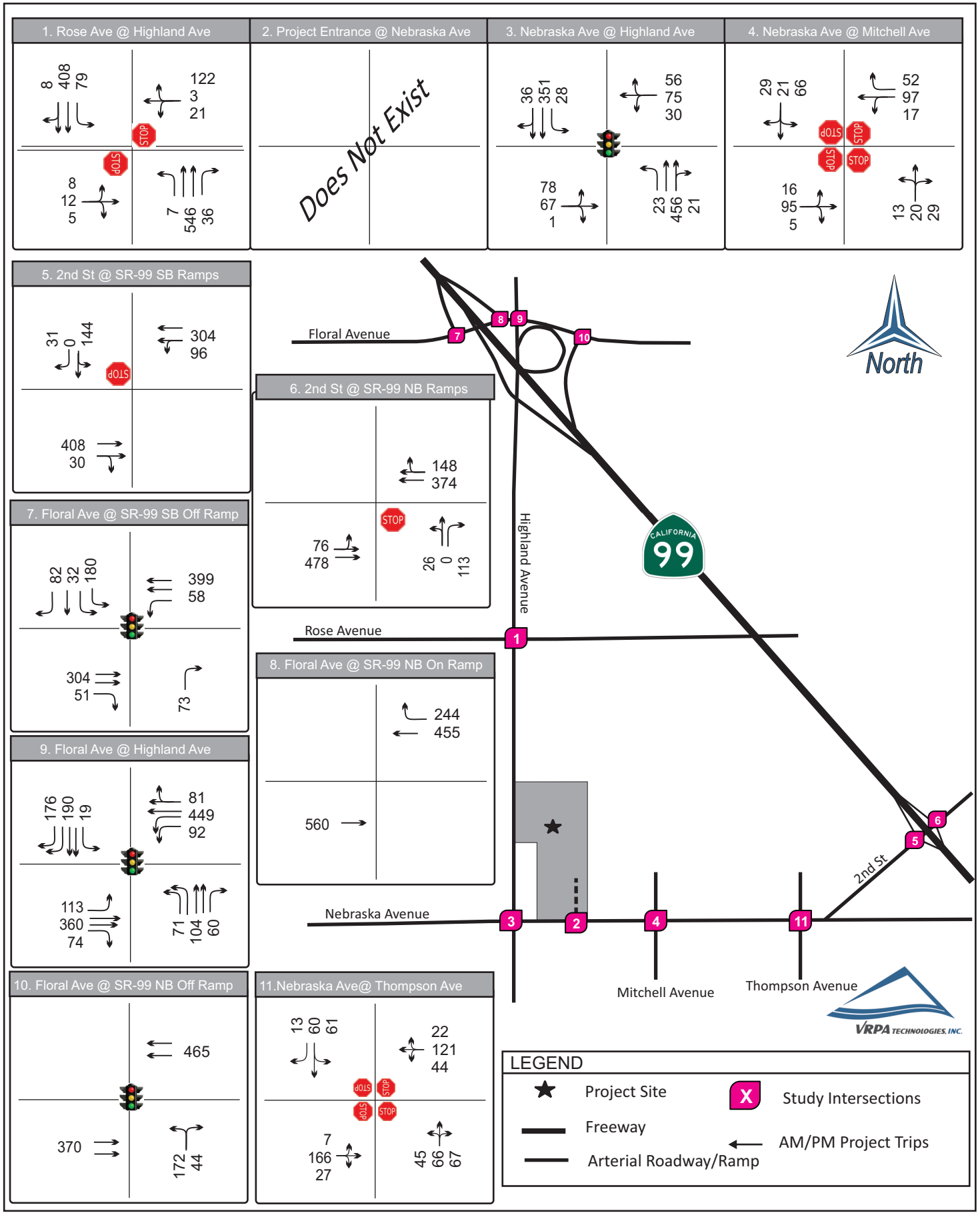
Figure 2-1



Nebraska- Highland Multifamily and Retail Development

Existing Conditions AM Peak Hour Traffic

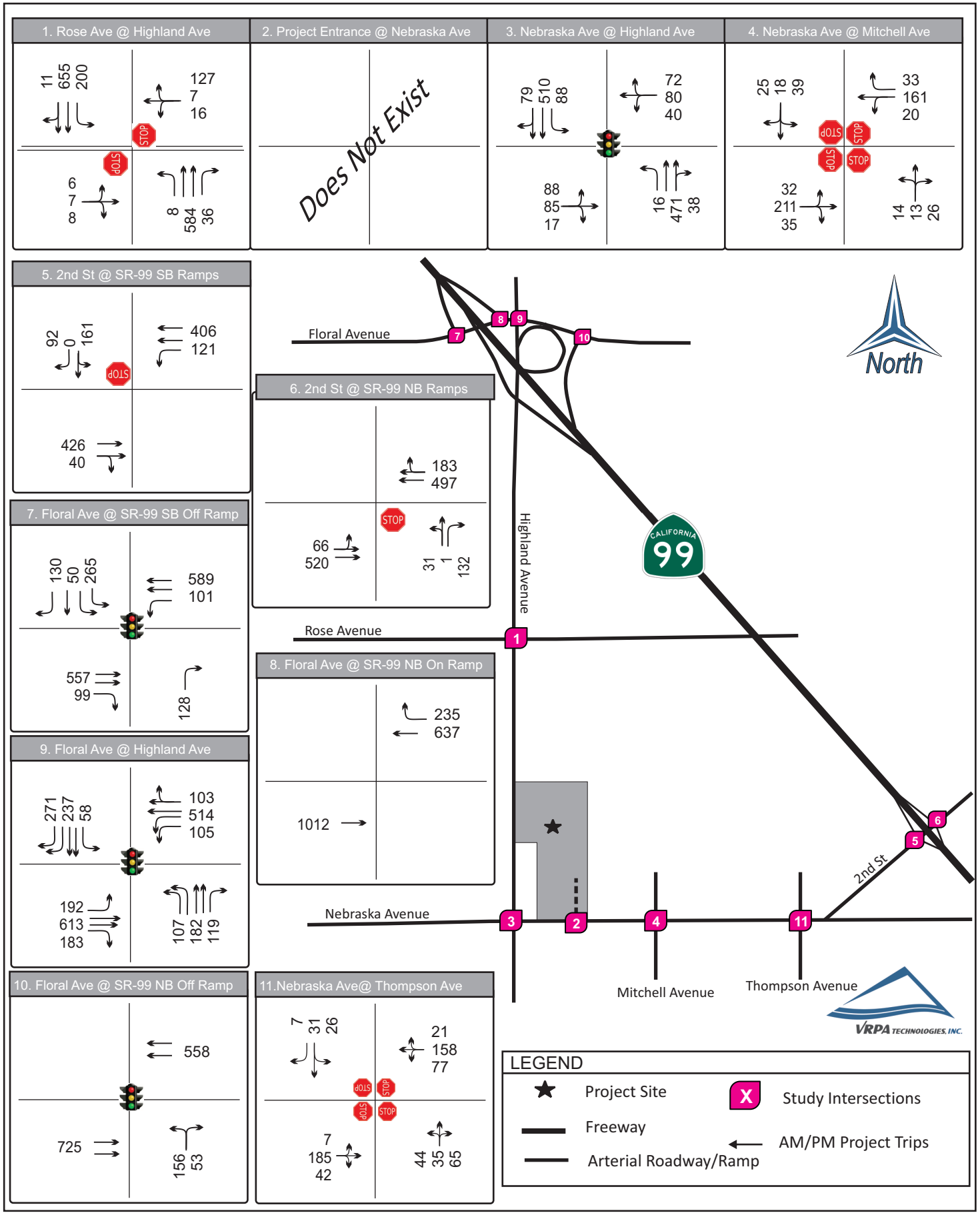
Figure 2-2



Nebraska- Highland Multifamily and Retail Development

Existing Conditions PM Peak Hour Traffic

Figure 2-3



3.0 Traffic Impacts

This chapter provides an assessment of the traffic the Project is expected to generate and the impact of that traffic on the surrounding street system.

3.1 Trip Generation

To assess the impacts that the Project may have on the surrounding roadway network, the first step is to determine Project trip generation. Project trip generation was determined using trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition). The considerations described above led to the recommended trip generation for weekday AM (7:00-9:00am) and PM (4:00-6:00pm) peak hours shown in Table 3-1.

3.2 Trip Distribution

Since the Project consists of retail and residential development in the same parcel, trip distribution percentages are different for both developments, Project trip distribution percentages for residential and retail development is shown in Figure 3-1a and 3-1b. These percentages are based upon knowledge of the study area, engineering judgement, prevailing traffic patterns in the study area, major routes, population centers, and other existing development.

Vehicular access to the site would be provided by driveway along Nebraska Avenue. The driveways would be constructed to City standards and would be dedicated as public right of way.

3.3 Project Traffic

Project traffic as shown in Table 3-1 was distributed to the roadway system using the trip distribution percentages shown in Figures 3-1a and 3-1b. A graphical representation of the resulting AM and PM peak hour Project trips for residential development is shown in Figures 3-2, 3-3, retail development is shown in Figures 3-4 and 3-5. And the total AM and PM Peak hour Project trips are shown in Figures 3-6 and 3-7.

3.4 Existing Plus Project Traffic Conditions

An Existing Plus Project Scenario was analyzed to include existing traffic plus traffic generated by the Project. The resulting traffic is shown in Figures 3-8 and 3-9.

3.5 Approved/Pending Project Traffic

Traffic impact analyses typically require the analysis of approved or pending developments that have not yet been built in the vicinity of the Project. There are several development projects in the Project's vicinity that will add new trips to the intersections and roadway segments being evaluated in this TIS. The approved and pending developments that are included in the TIS are listed below.

- ✓ Casa De Villa – 40 multi-family units and future 3,000 square foot commercial development
- ✓ Phase 3 of Tract 5217 Canales Estates – 51 single-family units
- ✓ Josan Development – 193 multi-family units, 20.8 acres of commercial use
- ✓ Hinseley Development - 120 single-family units

The cumulative developments are shown in figure 3-10.

3.6 Opening Year (2023) With Project and Cumulative Developments

The impacts of the Project were analyzed considering Near term traffic conditions, approximately on the assumed opening day of the Project, or in this case the year 2023. There were altogether four cumulative developments within a mile of Project location that might impact the study intersection in this scenario. The resulting traffic with cumulative effect is shown in Figures 3-11 and 3-12.

3.7 Horizon Year (2046) Without Project Traffic Conditions

For the Horizon Year (2046) scenario, traffic growth was estimated by adding a growth factor of 2% per year to existing traffic to analyze the traffic impacts on approximately twenty-three (23) years after assumed opening day. The results are shown in Figure 3-13 and 3-14.

3.8 Horizon Year (2046) With Project Traffic Conditions

The addition of Project trips, which were distributed to the roadway system using the trip distribution percentages shown in Figure 3-1 (Section 3.3), were added to Horizon Year 2046 Without Project Traffic Volumes.

Traffic conditions resulting from this scenario are shown in Figure 3-15 and 3-16.

3.9 Impacts

3.9.1 *Intersection Capacity Analysis*

Table 3-2 provides the intersection level of service analysis for the study intersections considering the study scenarios discussed above. Potential mitigation measures are discussed in Chapter 4 of this report. Results of the analysis show that the three of the intersections operate at unacceptable LOS standard in future scenarios.

The result is further discussed in chapter 4.

3.9.2 *Queuing Analysis*

Table 3-3 provides a queue length summary for traffic movements at study intersections. The queue lengths presented in Table 3-3 represent the 95 percentile queue lengths for the respective lane movements based on the Synchro traffic signal timing program.

Table 3-1

Nebraska and Highland MultiFamily and Retail Development

Project Trip Generation - Trip Distribution Calculation

LAND USE (ITE LAND USE CODE)	QUANTITY (DWELLING UNITS OR 1,000 SQUARE FEET)	DAILY TRIP ENDS	(ADT)	WEEKDAY AM PEAK HOUR					WEEKDAY PM PEAK HOUR				
		RATE	VOLUME	RATE	IN:OUT SPLIT	VOLUME			RATE	IN:OUT SPLIT	VOLUME		
						IN	OUT	TOTAL			IN	OUT	TOTAL
220-Multifamily Housing (Low-Rise)	144	6.93	998	0.465	24:76	16	51	67	0.569	62:38	51	31	82
Strip Retail Plaza (822)	32.67	49.22	1,608	1.920	60:40	38	25	63	5.500	50:50	90	90	180
SUBTOTAL TRIP GENERATION			**2,606**			**54**	**76**	**130**			**141**	**121**	**261**
Internal Vehicle Trips (5%)			**130**			**3**	**4**	**6**			**7**	**6**	**14**
Pass By Trips/Retail Only (30%)			**482**			**11**	**8**	**19**			**27**	**27**	**54**
RESIDENTIAL TRIPS TO BE DISTRIBUTED			**998**			**16**	**51**				**51**	**31**	
RETAIL TRIPS TO BE DISTRIBUTED			**995**			**24**	**14**				**56**	**57**	

Table 3-2
Nebraska-Highland Multifamily and Retail Development
Future Intersections Operation

INTERSECTION	CONTROL	TARGET LOS	PEAK HOUR	EXISTING PLUS PROJECT		CUMULATIVE OPENING YEAR 2023 WITH PROJECT		FUTURE YEAR 2046 WITHOUT PROJECT		FUTURE YEAR 2046 WITH PROJECT	
				DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
Highland Avenue and Rose Avebue	Two-way Stop	D	AM	34.2	D	43.1	D*	**>100**	**F**	**>100**	**F**
			PM	**>100**	**F**	**>100**	**F**	**>100**	**F**	**>100**	**F**
Nebraska Avenue and Project Access	One way Stop	D	AM	10.5	B	11.7	B	DOESN'T EXIST		14.5	B
			PM	13	B	15.9	C			17.1	C
Nebraska Avenue and Highland Avenue	Signalized	D	AM	11.2	B	14.2	B	13.6	B	14.5	B
			PM	14.4	B	22.8	C	21.0	C	28.9	C
Nebraska Avenue and Mitchell Avenue	All way Stop	D	AM	8.9	A	9.9	A	10.4	B	10.9	B
			PM	11	B	14.6	B	16.4	C	21.1	C
Second Avenue and SR 99 SB Ramps	Two way Stop	D	AM	29.9	D	39	E	**>100**	**F**	**>100**	**F**
			PM	**70.4**	**D***	**>100**	**F**	**>100**	**F**	**>100**	**F**
Second Avenue and SR 99 NB Ramps	One way Stop	D	AM	23.3	C	36.1	E	**>100**	**F**	**>100**	**F**
			PM	30.1	D	**87.8**	**F**	**>100**	**F**	**>100**	**F**
Floral Avenue and SR 99 SB Off ramps	Signalized	D	AM	12.1	B	12.1	B	13.1	B	13.1	B
			PM	13.8	B	13.9	B	20.8	C	20.9	C
Floral Avenue and SR 99 NB On Ramps	No Sign Control	D	AM	N/A	A	N/A	A	N/A	A	N/A	A
			PM	N/A	A	N/A	A	N/A	A	N/A	A
Floral Avenue and Highland Avenue	Signalized	D	AM	16.3	B	17.1	B	17.7	B	17.9	B
			PM	18.2	B	18.8	B	21.4	C	21.7	C
Floral Avenue and SR 99 NB Off Ramps	Signlaized	D	AM	13.1	B	13.1	B	14.8	B	14.8	B
			PM	11.2	B	11.3	B	13.7	B	13.7	B
Nebraska Avenue and Thompson Avenue	All way Stop	D	AM	13.2	B	17.7	C	**56.8**	**D***	**71.9**	**D***
			PM	11.7	B	16.8	C	21.0	C	30.6	D

DELAY is measured in seconds

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

For signalized intersections, delay results show the average for the entire intersection. For two-way and All way stop controlled intersections, delay results show the delay for the worst movement.

HCM 6th doesn't support the speed limit of 65mph, so 55mph is considered for the analysis purpose.

D*- LOS D is assumed as the traffic runs without interruption and doesn't need improvements

Table 3-3
Nebraska Highland Multifamily and Retail Development
Future Queuing Operation

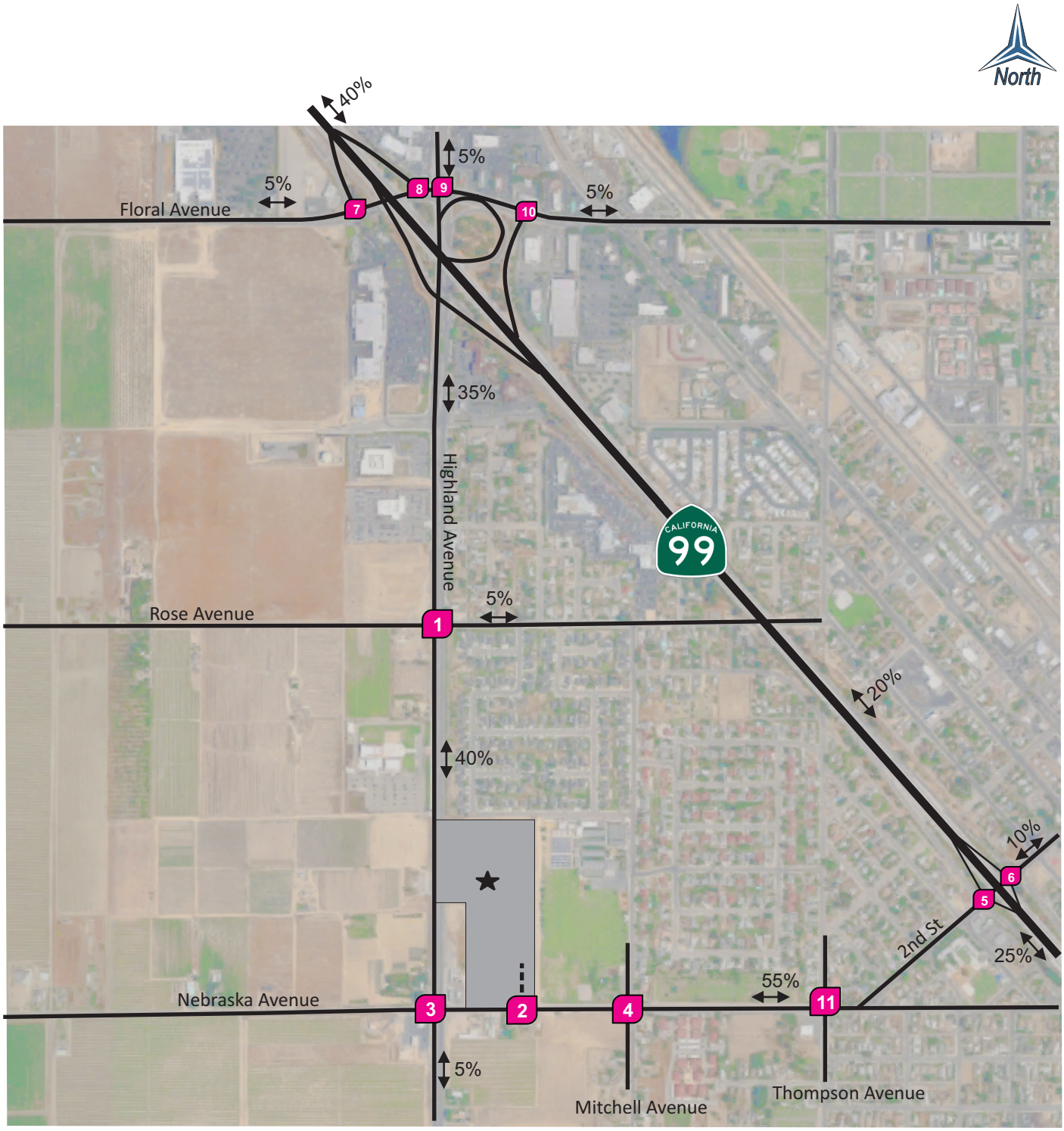
INTERSECTION	INTERSECTION APPROACH	AVAILABLE STORAGE	EXISITNG PLUS PROJECT		OPENING YEAR 2023		HORIZON YEAR 2046 WITHOUT PROJECT		HORIZON YEAR 2046 WITH PROJECT	
			AM QUEUE	PM QUEUE	AM QUEUE	PM QUEUE	AM QUEUE	PM QUEUE	AM QUEUE	PM QUEUE
Highland Avenue and Rose Avenue	WB Left	N/A	45.0	150.0	**72.5**	**>200.0**	**>200.0**	**>200.0**	**>200.0**	**>200.0**
	SB Left	50.0	7.5	25.0	10.0	27.5	20.0	85.0	20.0	90.0
Nebraska Avenue and Highland Avenue	NB Left	200.0	25.0	21.0	31.0	35.0	37.0	28.0	37.0	28.0
	SB Left	125.0	40.0	136.0	48.0	165.0	42.0	191.0	53.0	191.0
Second Avenue and SR 99 SB Ramps	SB Left	200.0	72.5	152.5	92.5	**>200.0**	**>200.0**	**>200.0**	**>200.0**	**>200.0**
	WB Left	175.0	7.5	10.0	10.0	12.5	17.5	25.0	20.0	30.0
Second Avenue and SR 99 NB Ramps	EB left	N/A	7.5	7.5	12.5	12.5	17.5	17.5	17.5	22.5
	NB left	325.0	15.0	25.0	35.0	130.0	72.5	110.0	80.0	170.0
Floral Avenue and SR 99 SB Off ramps	SB Left	400.0	51.0	77.0	57.0	97.0	80.0	120.0	81.0	120.0
	SB Right	400.0	2.0	24.0	4.0	26.0	25.0	44.0	25.0	44.0
Highland Avenue & Floral Avenue	EB Left	100.0	73.0	150.0	75.0	157.0	**>200.0**	**>200.0**	**>200.0**	**>200.0**
	EB Right	125.0	19.0	49.0	21.0	63.0	33.0	107.0	34.0	107.0
	WB Left	150.0	8.0	6.0	8.0	7.0	17.0	15.0	17.0	15.0
	NB Left	175.0	48.0	64.0	78.0	88.0	64.0	103.0	71.0	103.0
	NB Right	75.0	34.0	46.0	38.0	48.0	41.0	126.0	42.0	126.0
	SB Left	125.0	32.0	75.0	32.0	75.0	46.0	117.0	46.0	117.0
	SB Right	100.0	29.0	35.0	30.0	35.0	35.0	113.0	35.0	113.0
SR 99 NB Off Ramps and Floral Ave	NB Left	35.0	142.0	129.0	144.0	132.0	**>200.0**	138.0	**>200.0**	**>200.0**
	NB Right	35.0	23.0	25.0	23.0	25.0	28.0	27.0	28.0	60.0

QUEUE is measured in feet

Nebraska- Highland Multifamily and Retail Development

Trip Distribution and Study Area - Residential Development

Figure 3-1a



LEGEND

- ★ Project Site
- Freeway
- Arterial Roadway/Ramp
- X Study Intersections
- xx% Trip Distribution

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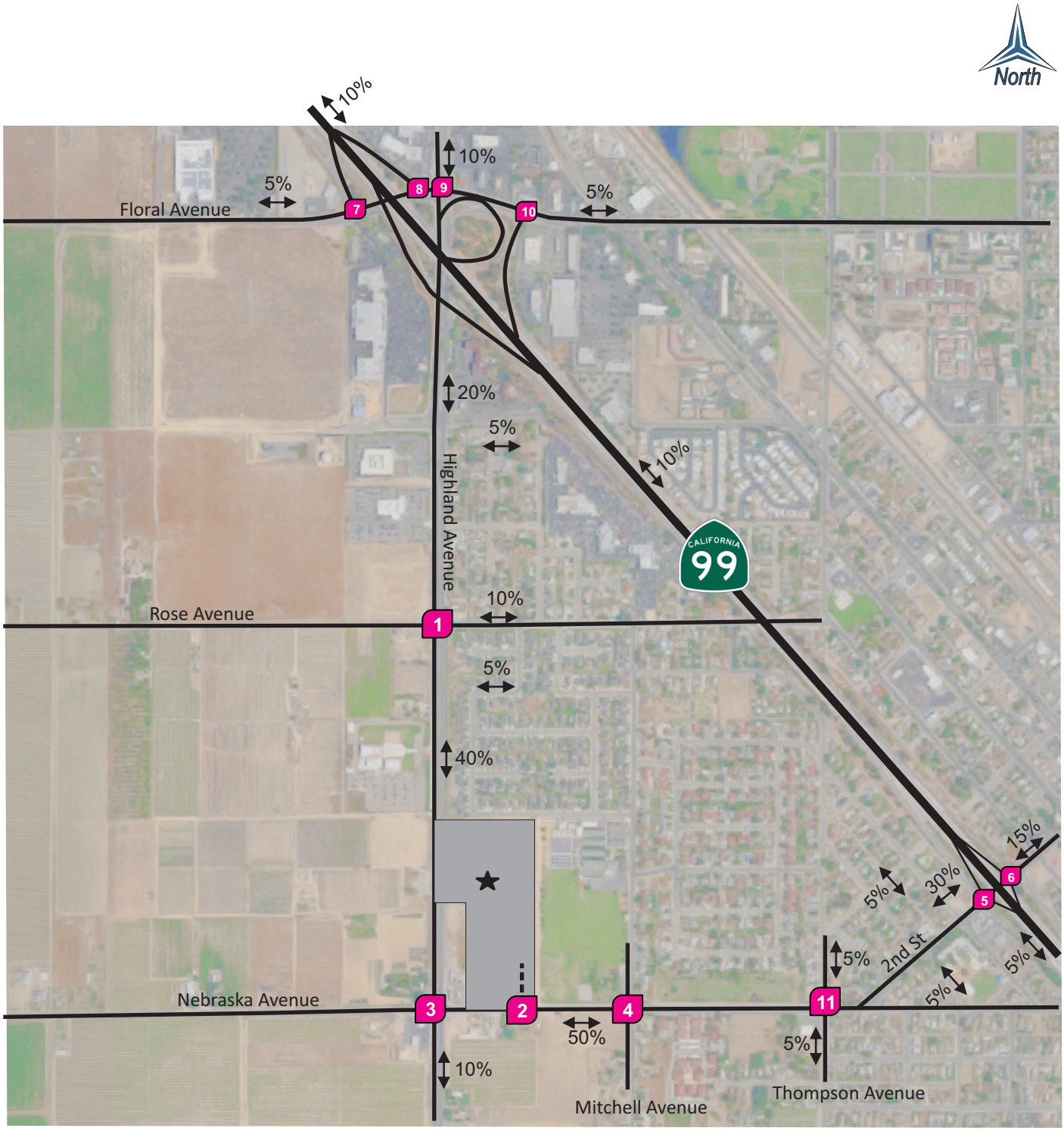
Nebraska- Highland Multifamily and Retail Development

Trip Distribution and Study Area - Retail Development

Figure 3-1b



LEGEND

★	Project Site	X	Study Intersections
▬	Freeway	xx%	Trip Distribution
▬	Arterial Roadway/Ramp		

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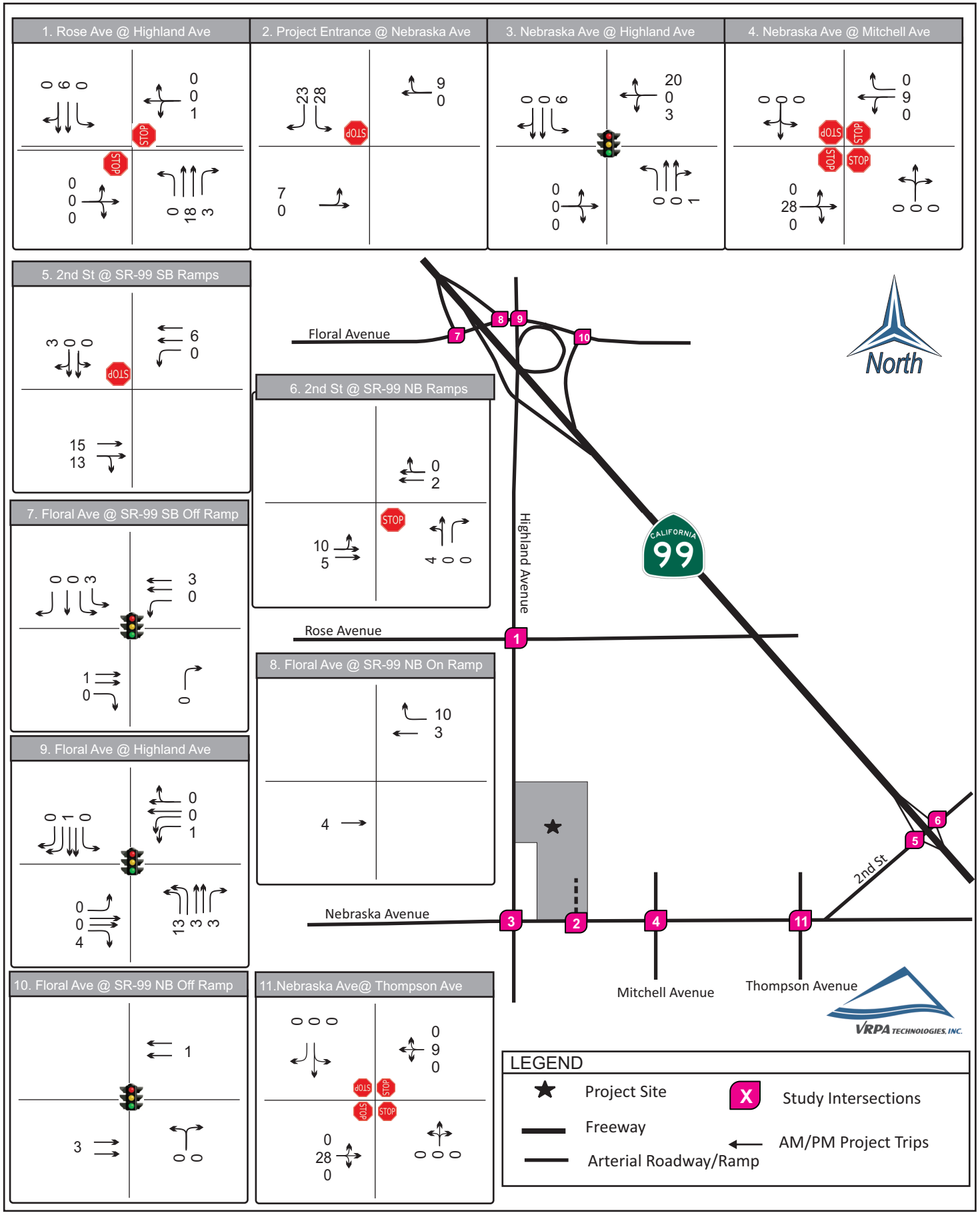
Nebraska- Highland Multifamily and Retail Development

Project Trips - Residential Development AM Peak Hour

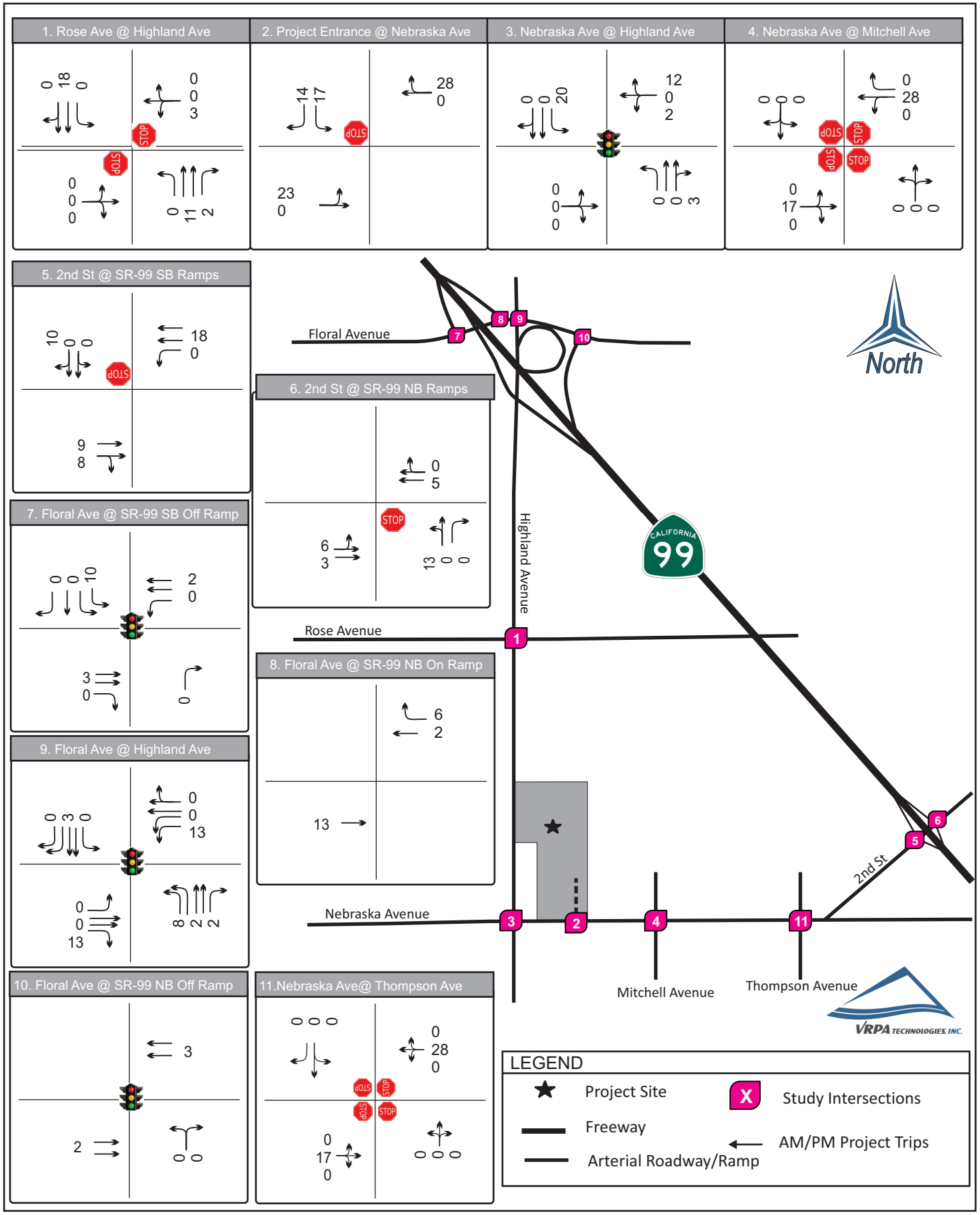
Figure 3-2



Nebraska- Highland Multifamily and Retail Development

Project Trips - Residential Development PM Peak Hour

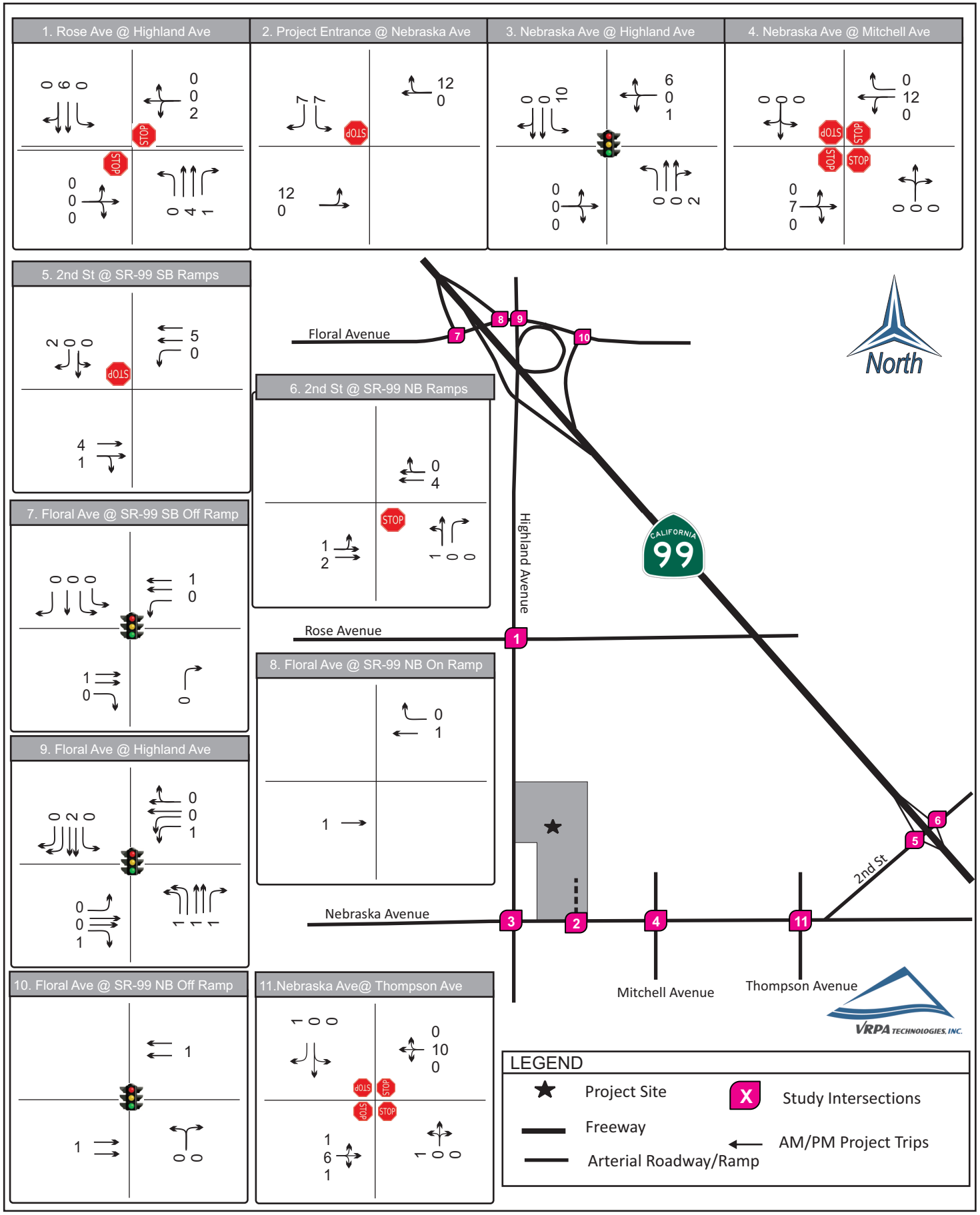
Figure 3-3



Nebraska- Highland Multifamily and Retail Development

Project Trips - Retail Development AM Peak Hour

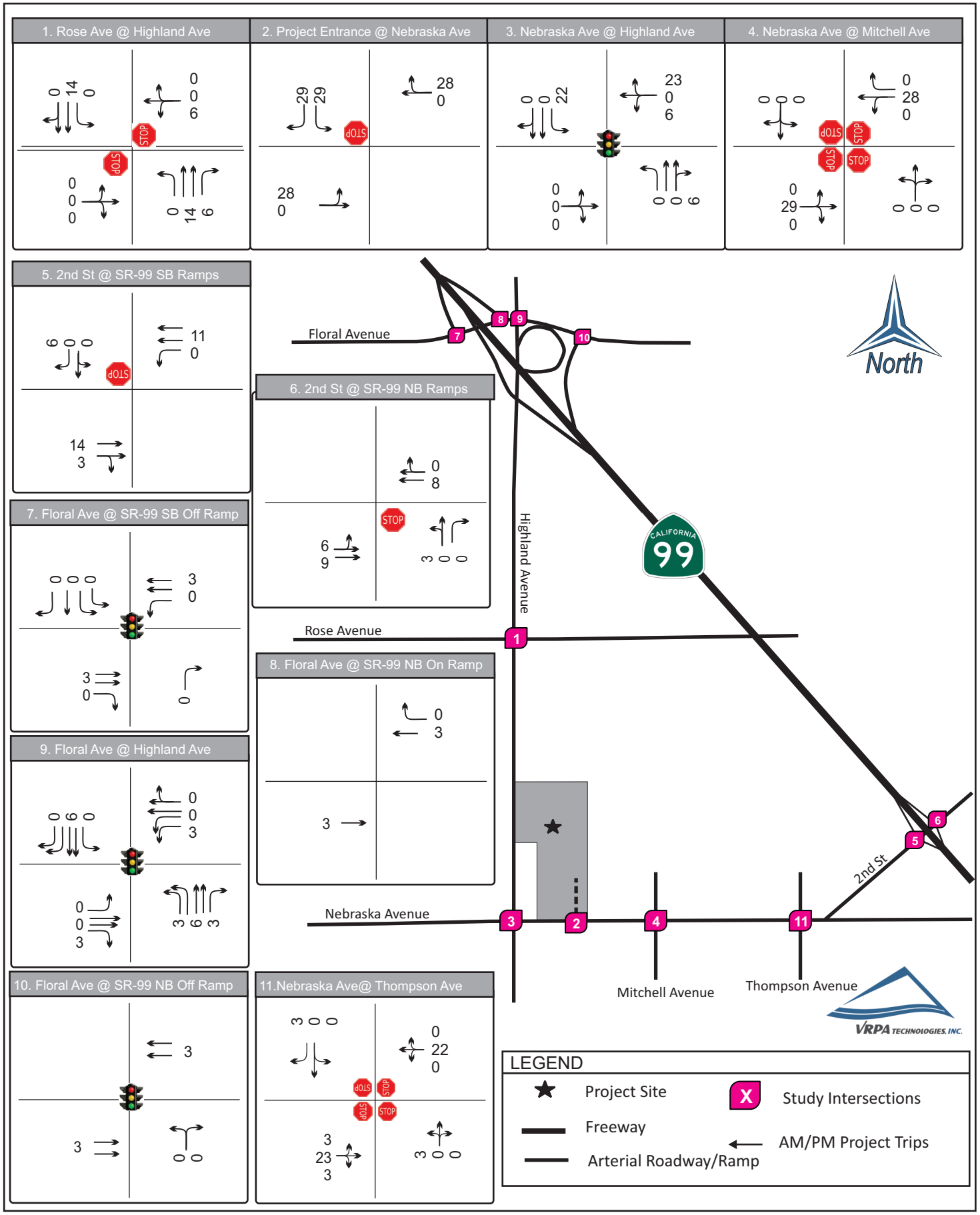
Figure 3-4



Nebraska- Highland Multifamily and Retail Development

Project Trips - Retail Development PM Peak Hour

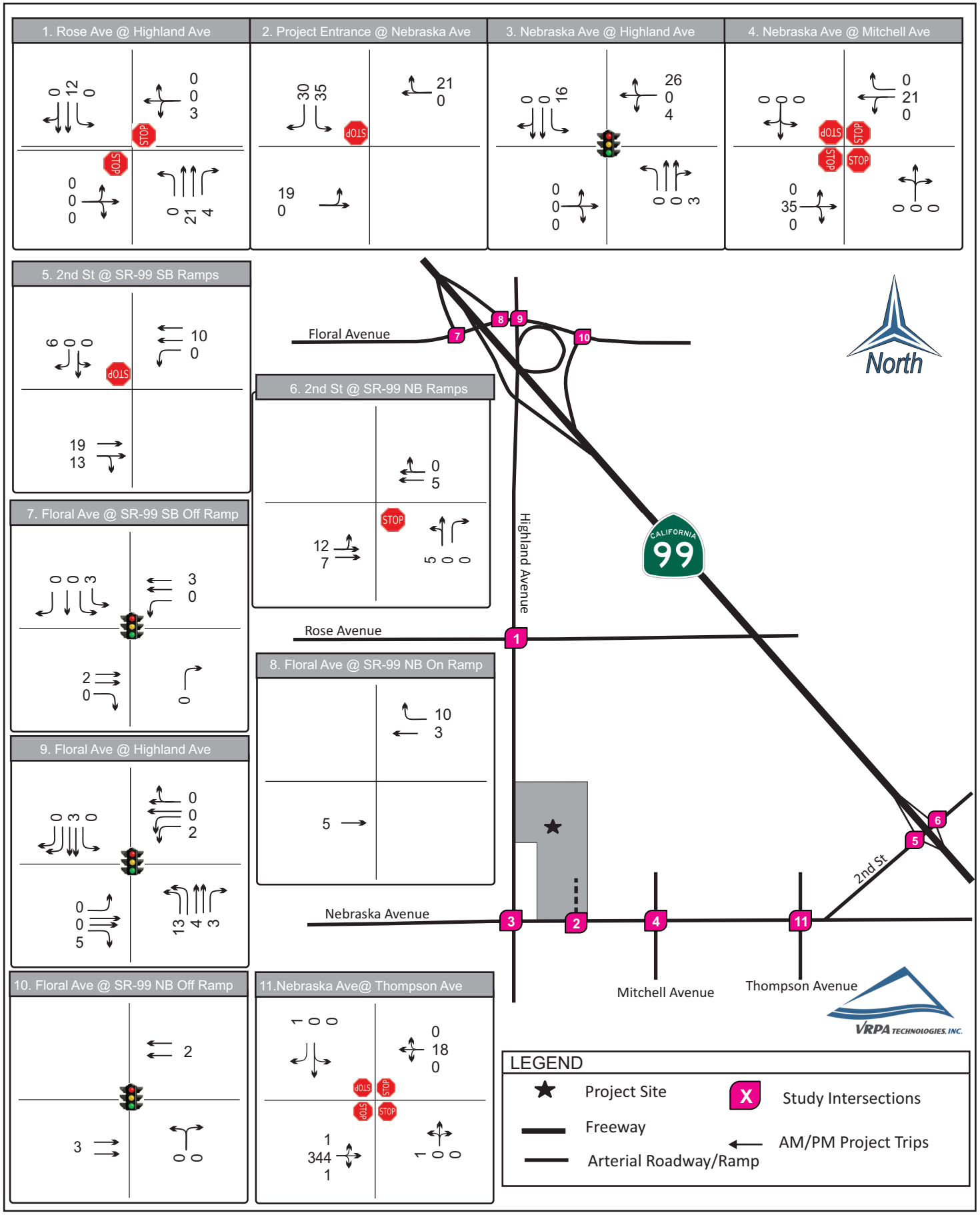
Figure 3-5



Nebraska- Highland Multifamily and Retail Development

Project Trips - Residential+Retail (Total) Development AM Peak Hour

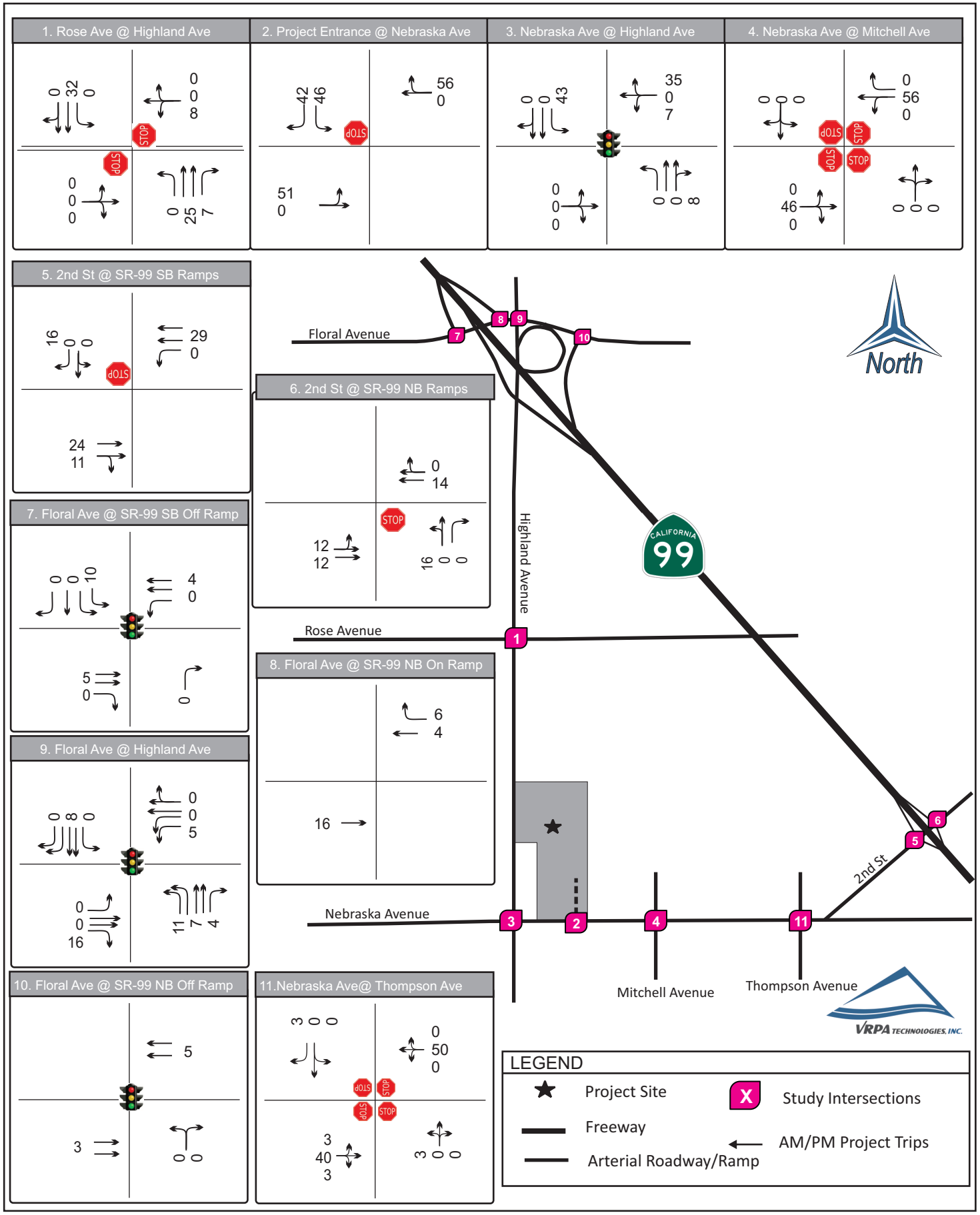
Figure 3-6



Nebraska- Highland Multifamily and Retail Development

Project Trips - Residential+Retail (Total) Development PM Peak Hour

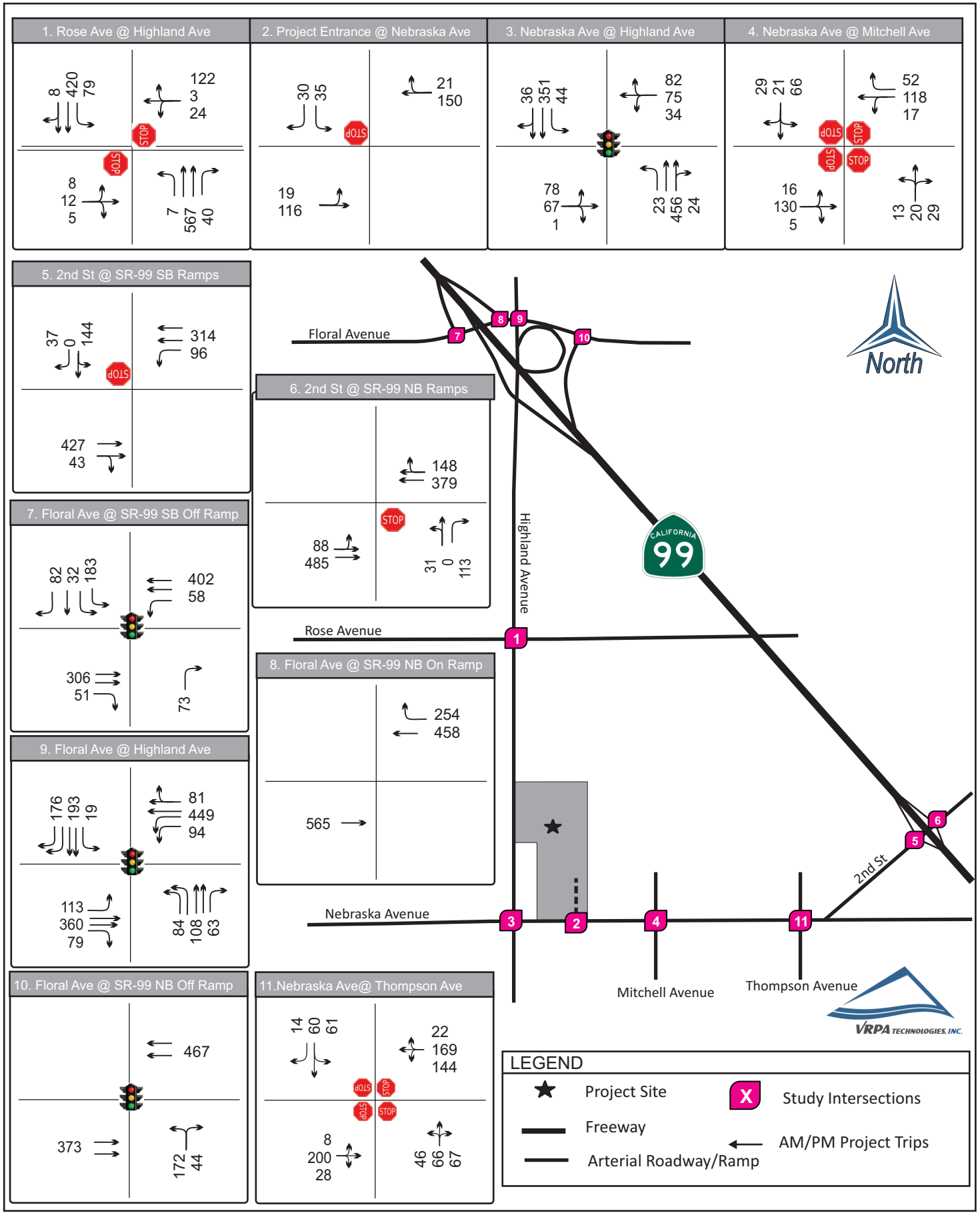
Figure 3-7



Nebraska- Highland Multifamily and Retail Development

Existing Plus Total Project AM Peak Hour Trips

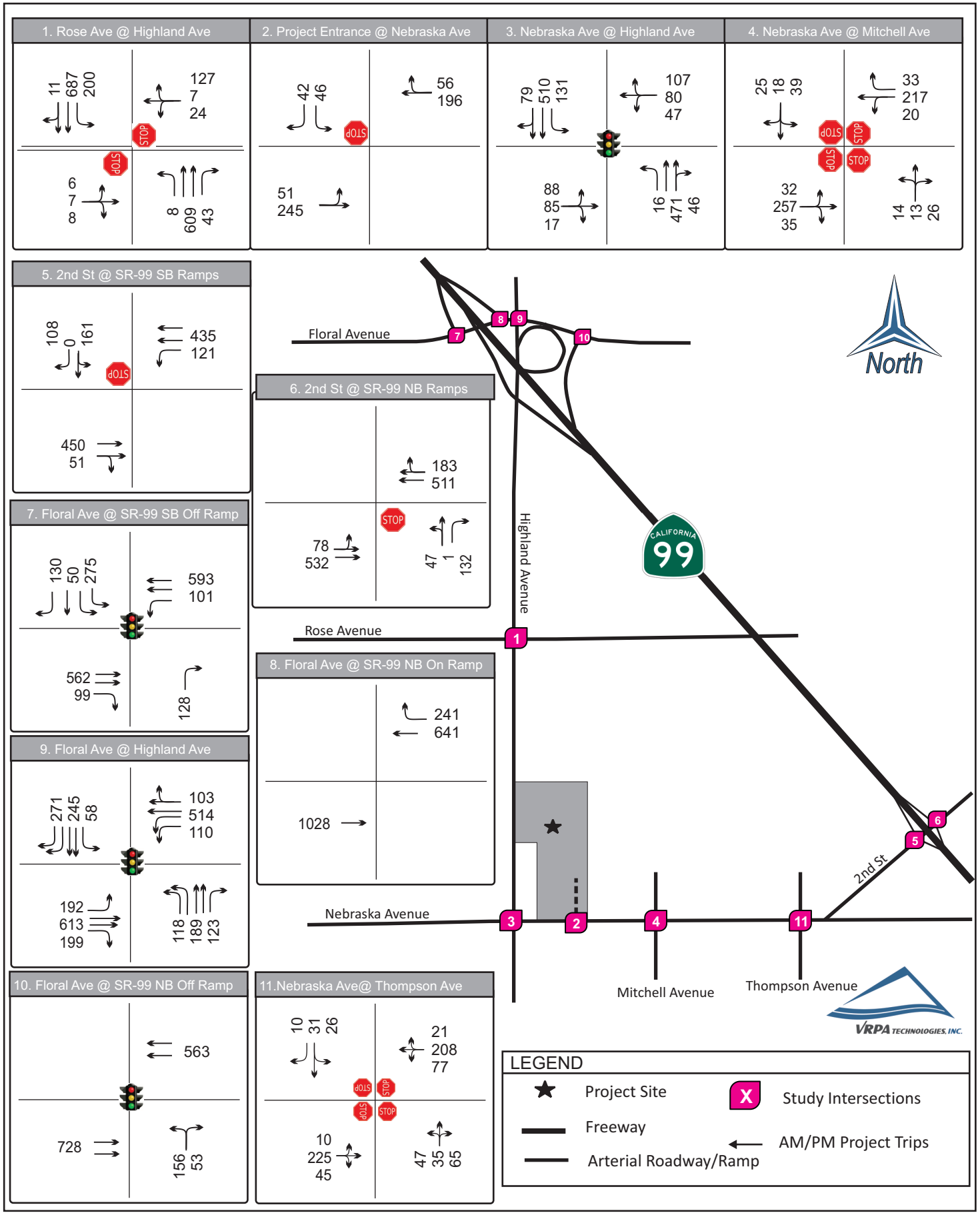
Figure 3-8



Nebraska- Highland Multifamily and Retail Development

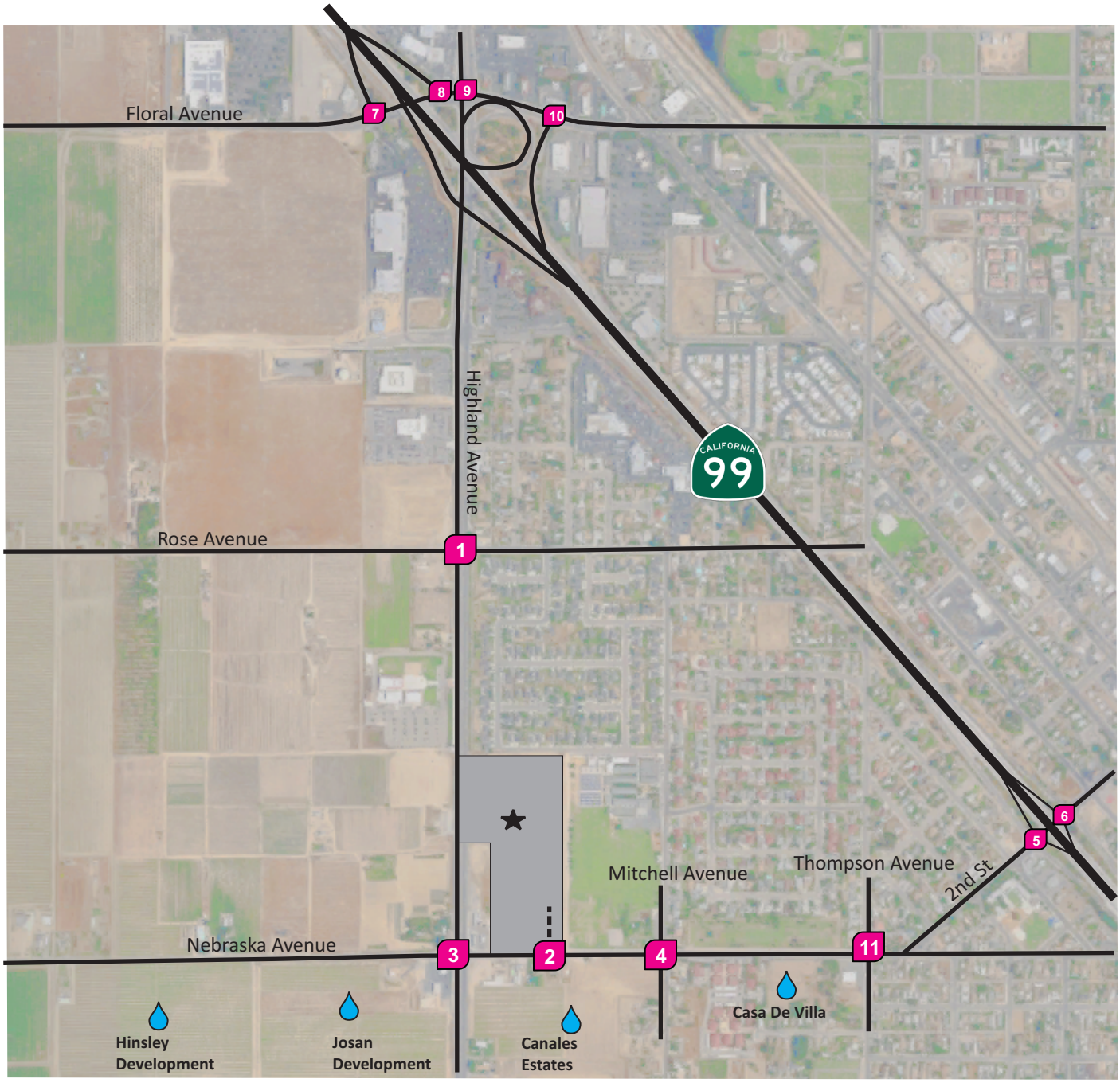
Existing Plus Total Project PM Peak Hour Trips

Figure 3-9



Nebraska- Highland Multifamily and Retail Development
Cumulative Developments

Figure 3-10



LEGEND

- ★ Project Site
- Freeway
- Arterial Roadway/Ramp
- X Study Intersections
- xx% Trip Distribution
- Cumulative Projects

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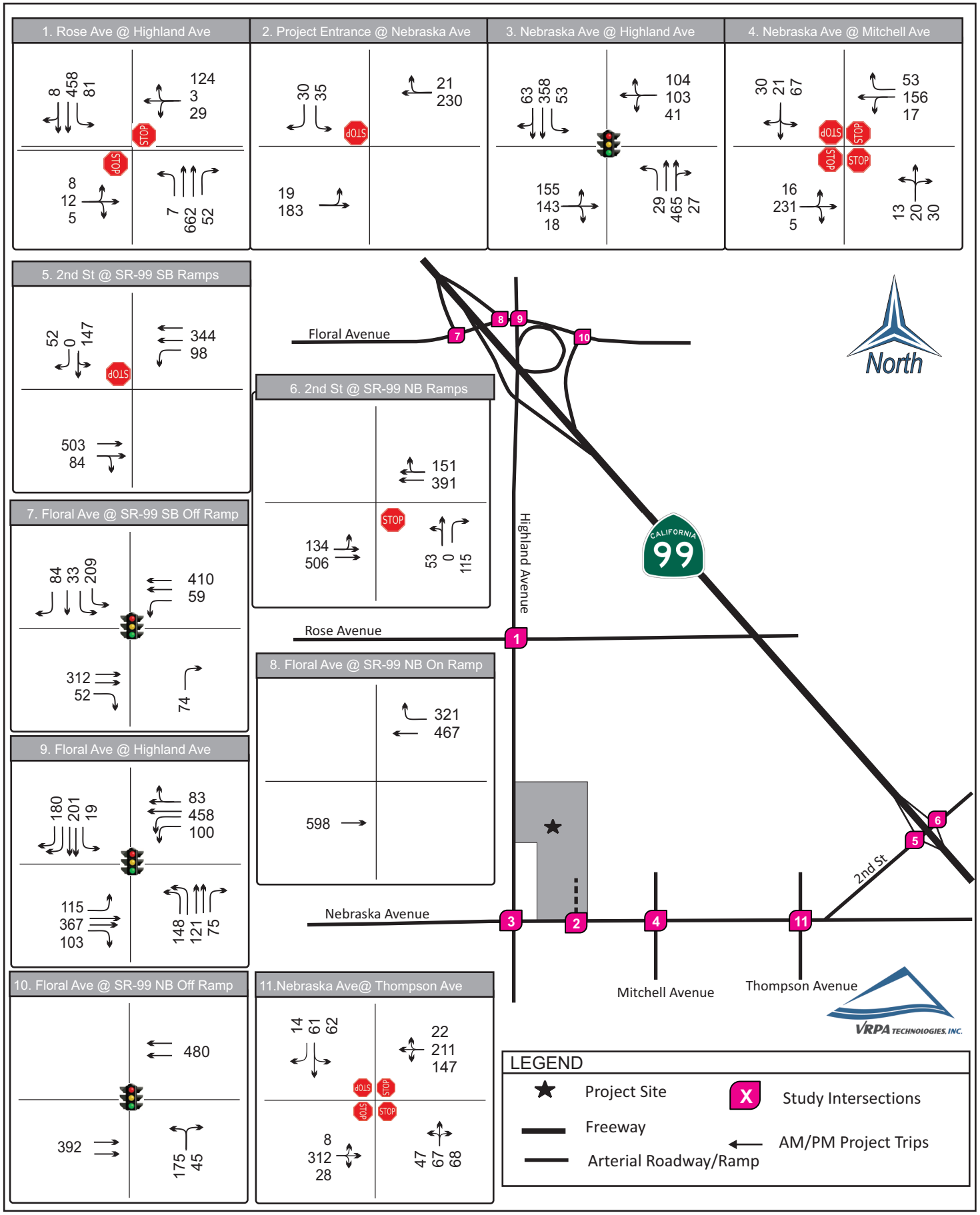
Nebraska- Highland Multifamily and Retail Development

Cumulative Opening Year(2023) With Project AM Peak Hour

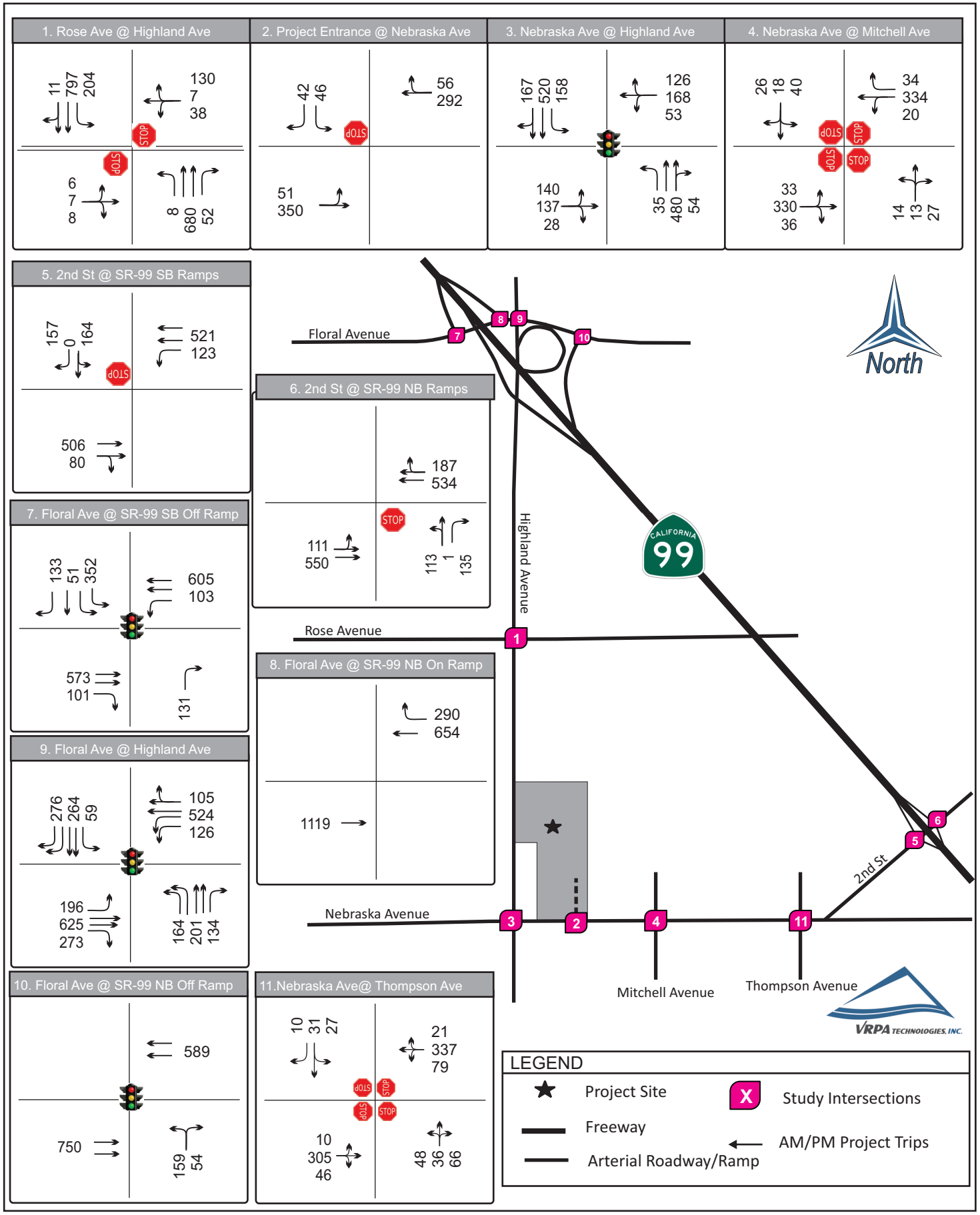
Figure 3-11



Nebraska- Highland Multifamily and Retail Development

Cumulative Opening Year(2023) With Project PM Peak Hour

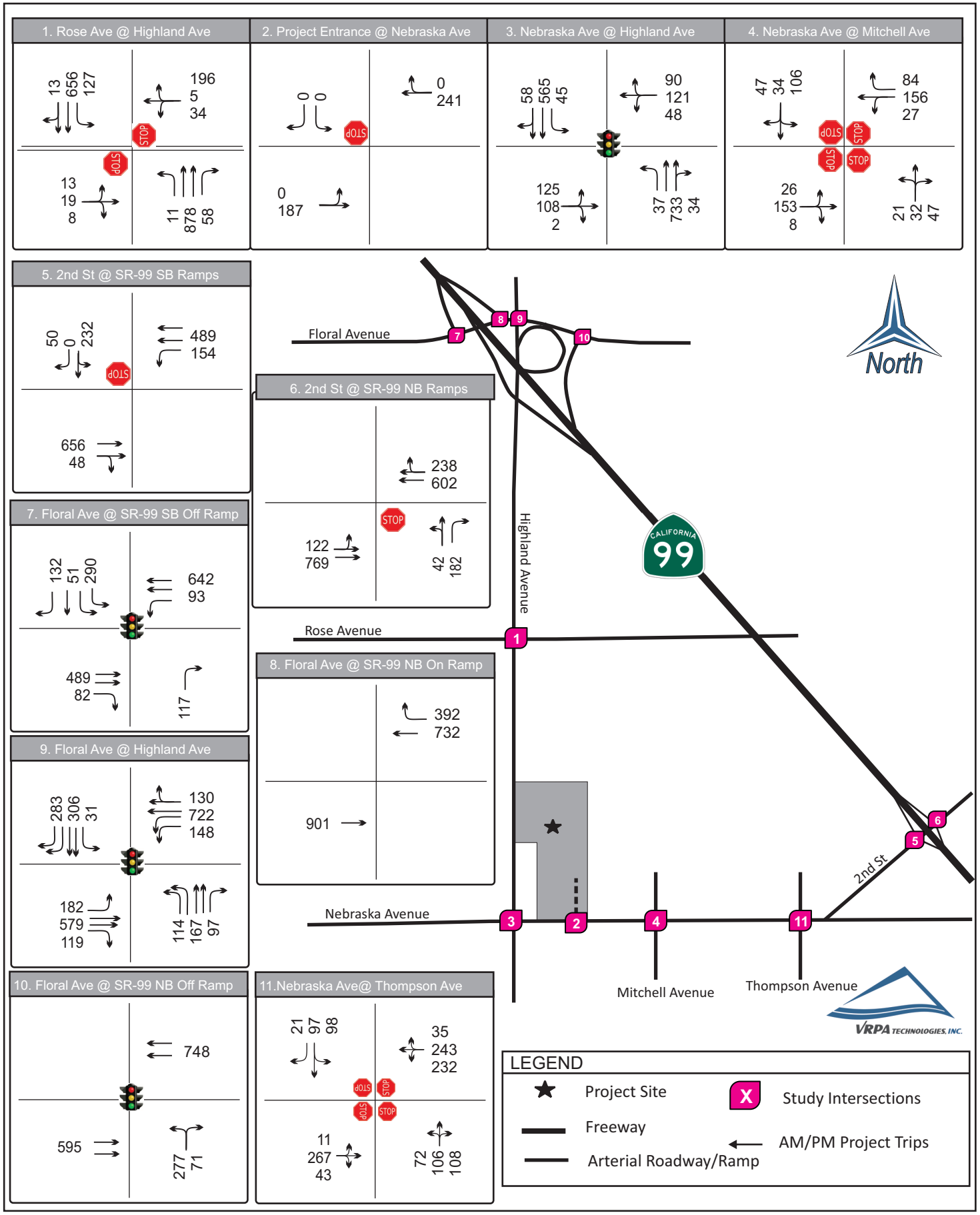
Figure 3-12



Nebraska- Highland Multifamily and Retail Development

Horizon Year 2046 Without Project Traffic AM Peak Hour Trips

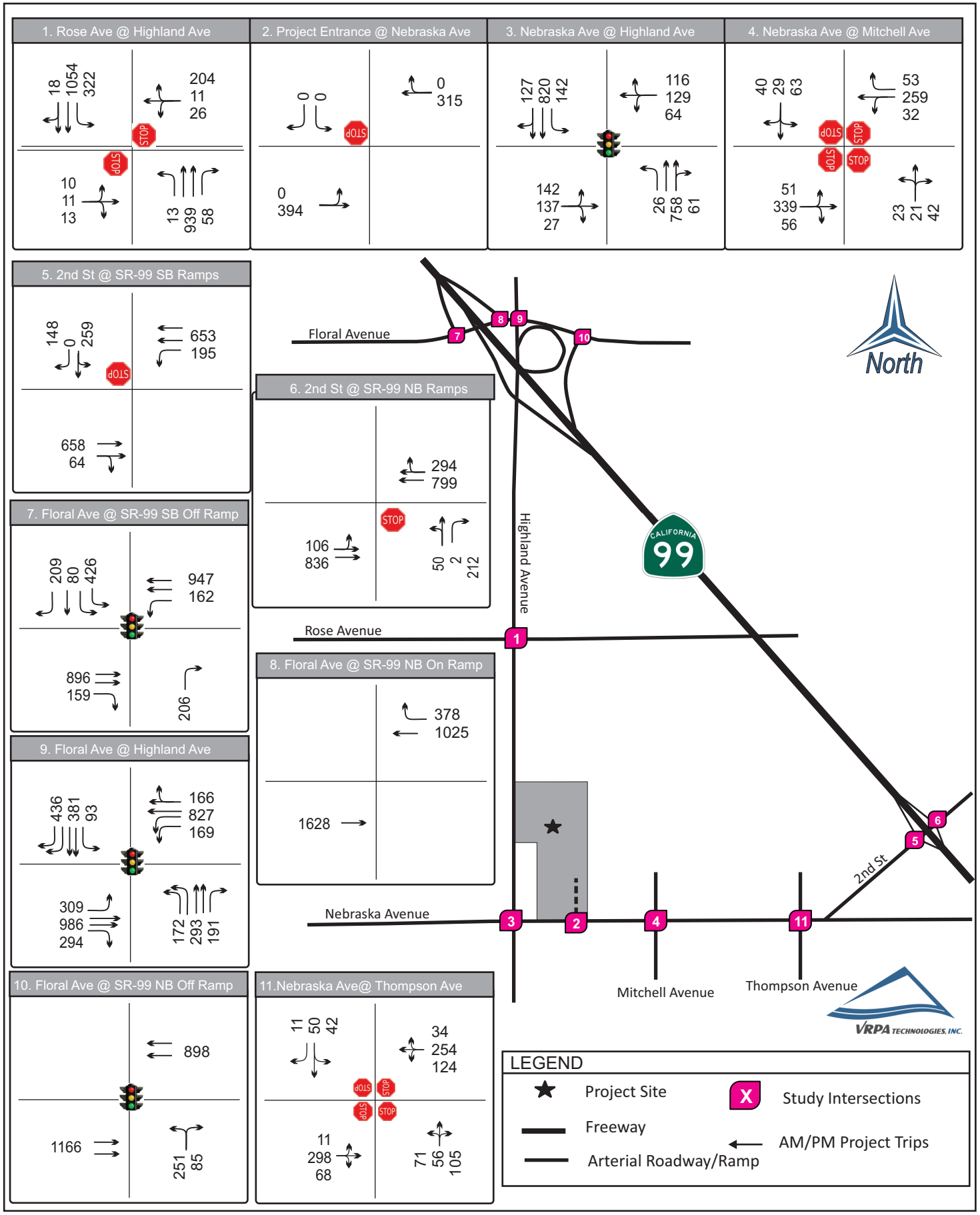
Figure 3-13



Nebraska- Highland Multifamily and Retail Development

Horizon Year 2046 Without Project Traffic PM Peak Hour Trips

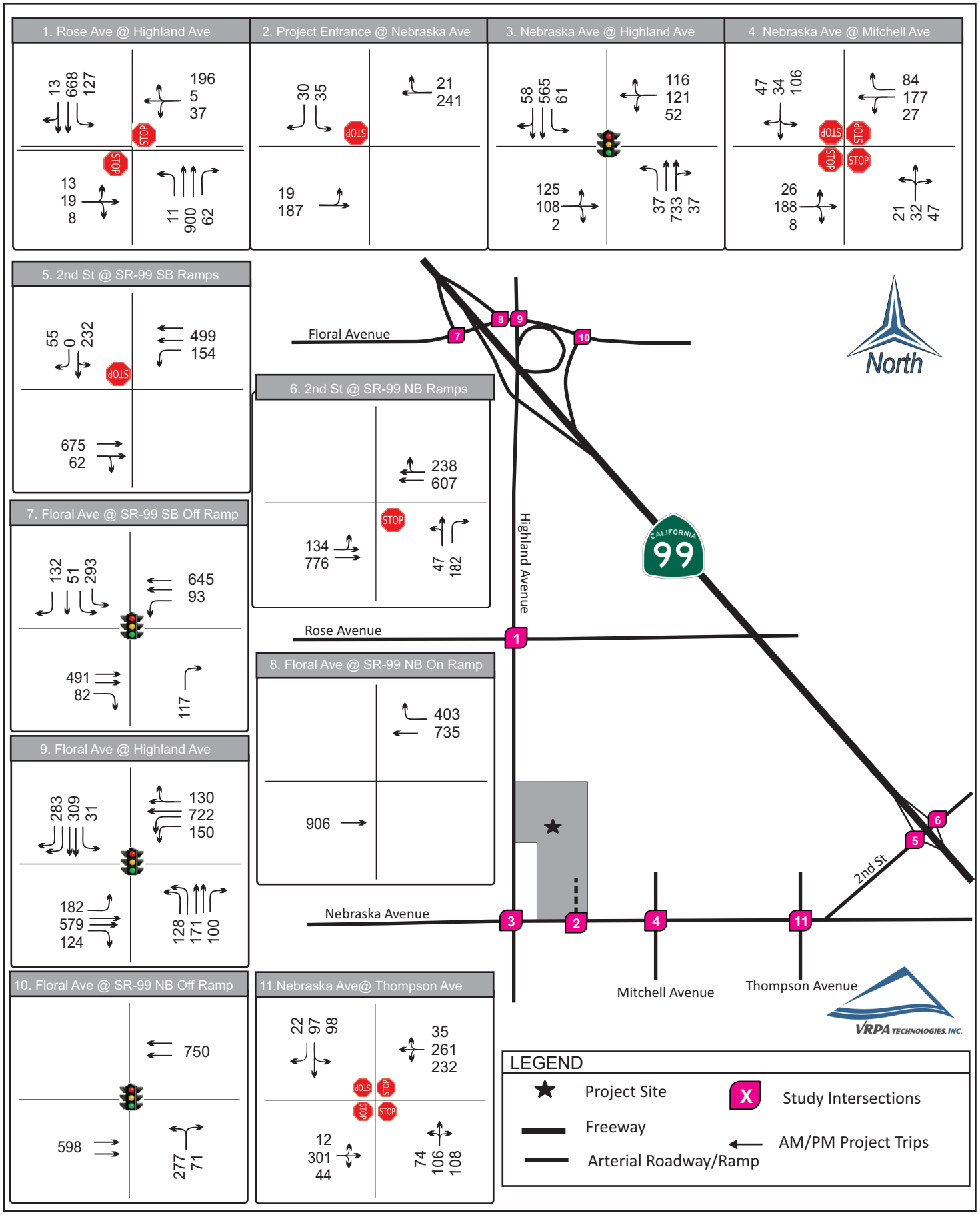
Figure 3-14



Nebraska- Highland Multifamily and Retail Development

Horizon Year 2046 With Project Traffic AM Peak Hour Trips

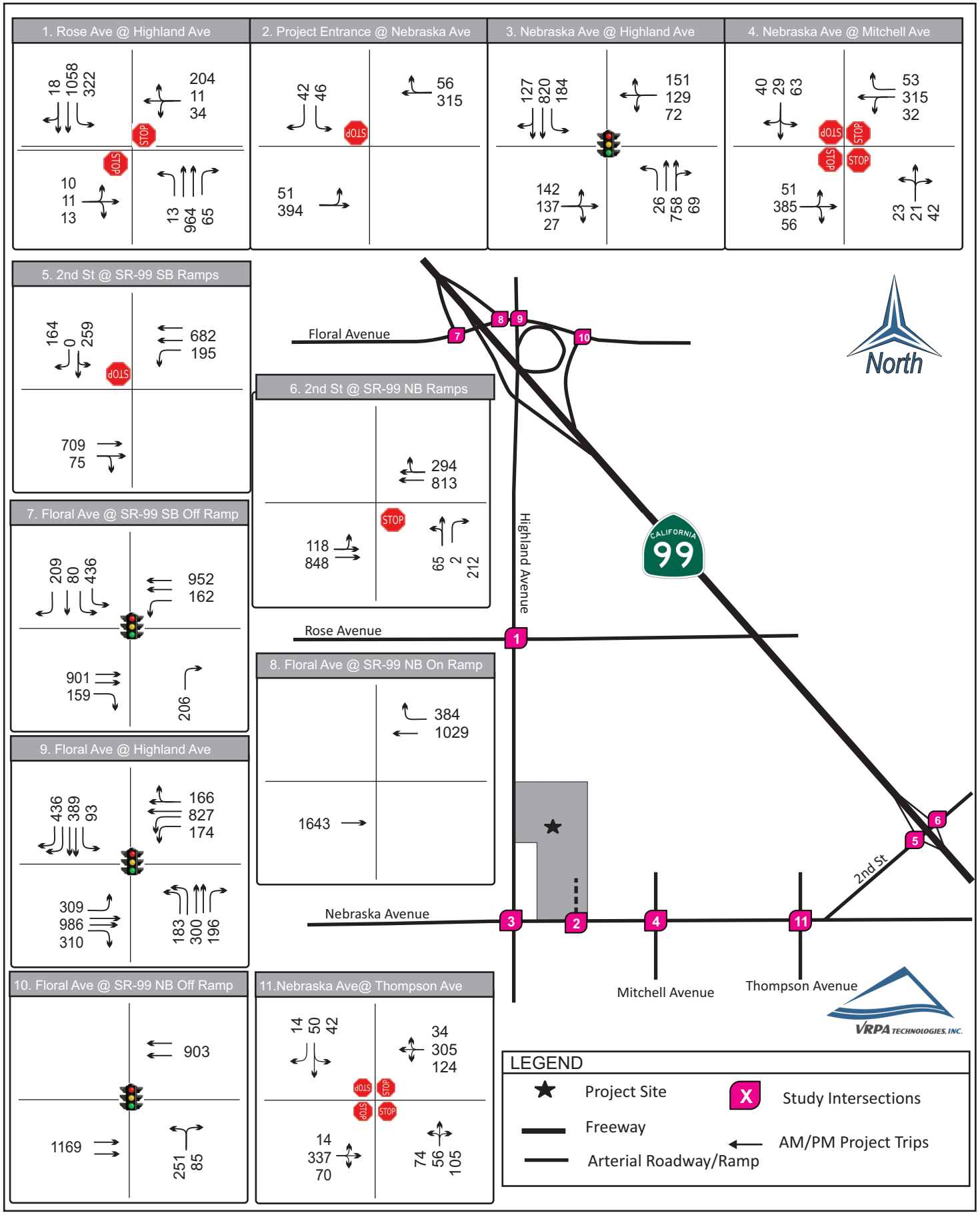
Figure 3-15



Nebraska- Highland Multifamily and Retail Development

Horizon Year 2046 With Project Traffic PM Peak Hour Trips

Figure 3-16



4.0 Roadway Improvements

This chapter provides an assessment of transportation improvements needed to support development of the Project.

4.1 Roadway Improvements

Intersections

The analysis described in Chapters 1 through 3 indicates that roadway improvements may be desirable to support the implementation of the project as well as to accommodate other traffic increases expected in the study area.

Following is a summary of the recommended mitigations for intersections where improvements may be desirable in each of the future scenarios analyzed.

✓ <u>Highland Avenue and Rose Avenue</u>

To achieve acceptable levels of service installing a Traffic Signal in following scenarios is recommended:

- Existing Plus Project Condition
  - Install a Traffic Signal
- Cumulative Opening Year 2023 With Project Scenario
  - Install a Traffic Signal
- Horizon Year 2046 Without Project scenario
  - Install a Traffic Signal
- Horizon Year 2046 With Project scenario
  - Install a Traffic Signal

✓ <u>Second Street and SR 99 NB Ramps</u>

To achieve acceptable levels of service installing a Traffic Signal in following scenarios is recommended:

- Cumulative Opening year 2023 With Project Scenario
- Horizon Year 2046 Without Project scenario
- Horizon Year 2046 With Project scenario

✓ <u>Second Street and SR 99 SB Ramps</u>

To achieve acceptable levels of service installing a Traffic Signal in following scenarios is recommended:

- Cumulative Opening year 2023 With Project Scenario

- Horizon Year 2046 Without Project scenario
- Horizon Year 2046 With Project scenario

Post-Mitigation Level of Service

The level of service resulting from the potential improvements identified above is shown in Table 4-1 for study area intersections. The resulting Horizon Year 2046 lane geometry is shown in Figure 4-1.

Post-Mitigation Queuing Analysis

The resulting Queuing operation after mitigation is shown in table 4-2.

4.2 Equitable Share Responsibility

For each location where mitigation is identified above for the Horizon Year 2046 scenario, this section of the report provides information on the proportion of future traffic is expected to be caused by the Project, also known as equitable share responsibility. The formula used to calculate the equitable share responsibility to roadway facilities is as follows:

Project Percentage of Future Traffic = (Project Trips)/(20-Year Horizon Plus Project Traffic – Existing Traffic)

Table 4-3 shows the Project's equitable fair share responsibility on a percentage basis for improvements to roadway facilities as described above.

Table 4-1
Nebraska-Highland Multifamily and Retail Development
Post Mitigation Intersections Operation

INTERSECTION	CONTROL	TARGET LOS	PEAK HOUR	EXISTING PLUS PROJECT		CUMULATIVE OPENING YEAR 2023 WITH PROJECT		FUTURE YEAR 2046 WITHOUT PROJECT		FUTURE YEAR 2046 WITH PROJECT	
				DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
Highland Avenue and Rose Avenue	Signalized	D	AM	10.9	B	11.2	B	15.6	B	15.8	B
			PM	14.2	B	14.7	B	22.8	C	23.9	C
Second Avenue and SR 99 SB Ramps	Signalized	D	AM	N/A		18.7	B	23.8	C	23.9	C
			PM			17.9	B	36.0	D	36.6	D
Second Avenue and SR 99 NB Ramps	Signalized	D	AM	N/A		12.1	B	21.9	C	26	C
			PM			12.7	B	12.9	B	13	B

DELAY is measured in seconds

LOS = Level of Service / **BOLD** denotes LOS standard has been exceeded

For signalized intersections, delay results show the average for the entire intersection.

Table 4-2
Nebraska Highland Multifamily and Retail Development
Post Mitigation Queuing Operation

INTERSECTION	INTERSECTION APPROACH	AVAILABLE STORAGE	EXISITNG PLUS PROJECT		OPENING YEAR 2023		HORIZON YEAR 2046 WITHOUT PROJECT		HORIZON YEAR 2046 WITH PROJECT	
			AM QUEUE	PM QUEUE	AM QUEUE	PM QUEUE	AM QUEUE	PM QUEUE	AM QUEUE	PM QUEUE
Highland Avenue and Rose Avenue	NB Left	N/A	12.0	14.0	12.0	14.0	17.0	24.0	17.0	24.0
	SB Left	50.0	56.0	120.0	57.0	126.0	90.0	292.0	90.0	292.0
Second Avenue and SR 99 SB Ramps	SB Right	200.0	N/A		6.0	33.0	4.0	51.0	6.0	51.0
	WB Left	175.0			95.0	122.0	158.0	>200.0	158.0	>200.0
Second Avenue and SR 99 NB Ramps	EB Right	N/A	N/A		22.0	27.0	54.0	86.0	54.0	86.0
	NB left	325.0			-	-	-		-	

QUEUE is measured in feet

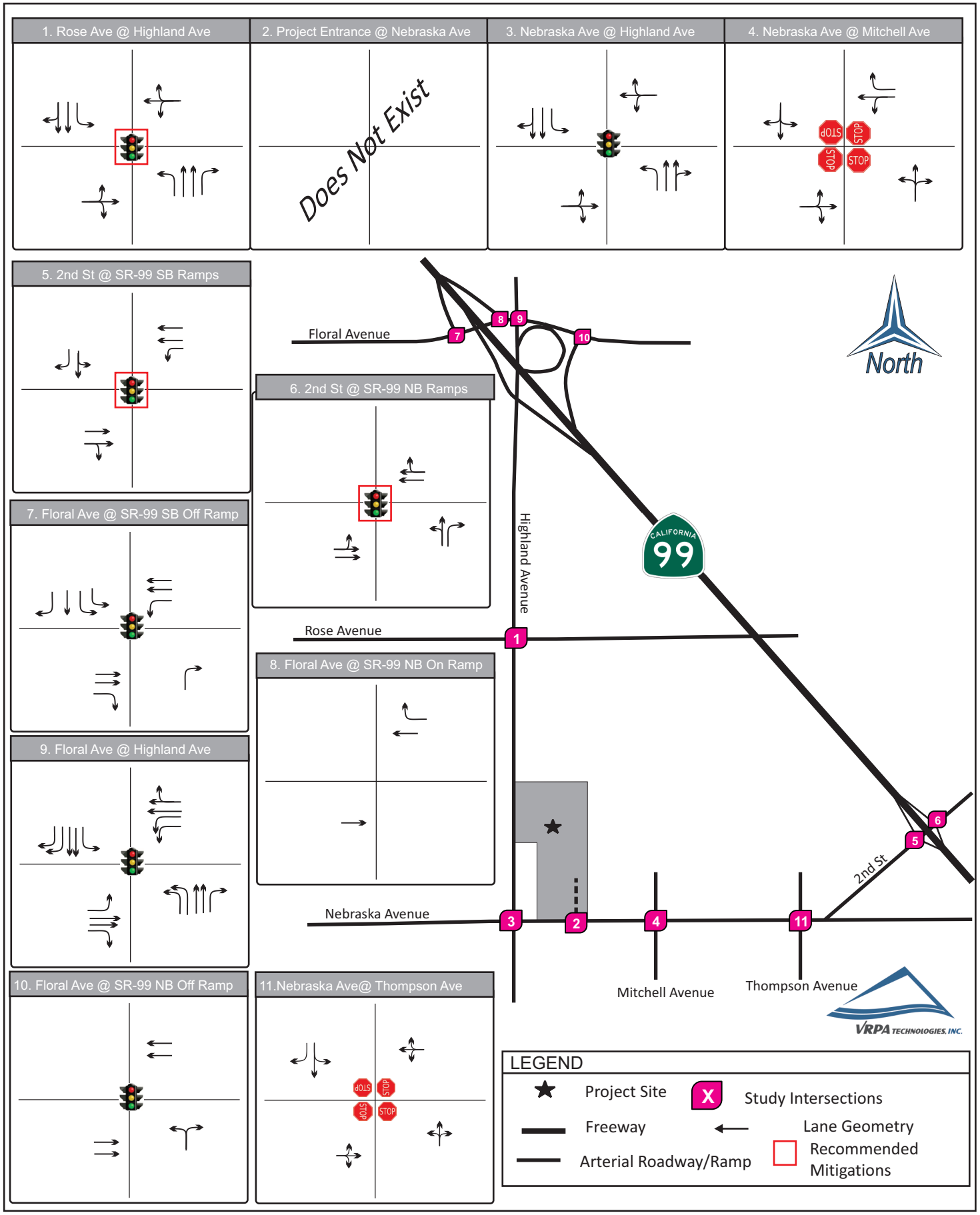
Table 4-3
Nebraska-Highland Multifamily and Retail Development
Horizon Year 2046 Equitable Share Responsibility

INTERSECTION	PEAK HOUR	EXISTING	PROJECT TRIPS	HORIZON YEAR 2046 WITH PROJECT	PROJECT EQUITABLE SHARE PERCENTAGE
Highland Avenue and Rose Avenue	AM	1,255	40	2,059	5.0%
	PM	1,665	72	2,723	6.8%
Second Avenue and SR 99 SB Ramps	AM	1,013	48	1,677	7.2%
	PM	1,246	80	2,084	9.5%
Second Avenue and SR 99 NB Ramps	AM	1,215	29	1,984	3.8%
	PM	1,430	54	2,352	5.9%

Nebraska- Highland Multifamily and Retail Development

Mitigated Lane Geometry

Figure 4-1



Appendices

Appendix-A
Traffic Counts

Prepared by National Data & Surveying Services

SR 43/Highland Ave & Rose Ave

Peak Hour Turning Movement Count

ID: 21-090126-001
City: Selma

Day: Tuesday
Date: 11/9/2021

PEAK HOURS		COUNT PERIODS
AM	07:15 AM - 08:15 AM	7:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:45 PM - 05:45 PM	4:00 PM - 06:00 PM

SR 43/Highland Ave — SOUTHBOUND

	Right	Thru	Left	U-Turn	Departing
AM	8	408	79	0	676
NOON	0	0	0	0	0
PM	11	655	200	0	717
	0	2	1	0	

Rose Ave — EASTBOUND

	AM	NOON	PM	
Departing	18	0	26	
U-Turn	0	0	0	0
Left	8	0	6	0
Thru	12	0	7	0.5
Right	5	0	8	0.5

Rose Ave — WESTBOUND

		PM	NOON	AM
Left	0	127	0	122
Thru	1	7	0	3
Right	0	16	0	21
U-Turn	0	1	0	0
Departing		244	0	127

SR 43/Highland Ave — NORTHBOUND

	Departing	U-Turn	Left	Thru	Right
		0	1	2	0
PM	679	0	8	584	36
NOON	0	0	0	0	0
AM	434	0	7	546	36

CONTROL

2-Way Stop(EB/WB)

	AM	NOON	PM
TEV	1255	0	1666
PHF	0.95		0.96

Totals (AM)

Approach	Left	Thru	Right
Southbound	79	408	8
Eastbound	8	12	5
Westbound	122	3	21
Northbound	7	546	36

Totals (NOON)

Approach	Left	Thru	Right
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0

Totals (PM)

Approach	Left	Thru	Right
Southbound	200	655	11
Eastbound	6	7	8
Westbound	127	7	16
Northbound	8	584	36

Total Bikes (AM)

Approach	Left	Thru	Right
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	1	0
Northbound	0	0	0

Total Bikes (NOON)

Approach	Left	Thru	Right
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0

Total Bikes (PM)

Approach	Left	Thru	Right
Southbound	1	0	0
Eastbound	0	0	0
Westbound	1	0	0
Northbound	0	0	1

Pedestrians (Crosswalks)

Crosswalk	AM	NOON	PM
North leg (eastbound direction)	0	0	0
North leg (westbound direction)	0	0	0
South leg (eastbound direction)	0	0	0
South leg (westbound direction)	0	0	0
West leg (northbound direction)	0	0	0
West leg (southbound direction)	0	0	0
East leg (northbound direction)	0	0	0
East leg (southbound direction)	0	0	0
NW corner (diagonal)	0	0	0
NE corner (diagonal)	0	0	0
SW corner (diagonal)	0	0	0
SE corner (diagonal)	0	0	0

Prepared by National Data & Surveying Services

SR 43/Highland Ave & Nebraska Ave

Peak Hour Turning Movement Count

ID: 21-090126-002
City: Selma

Day: Tuesday
Date: 11/9/2021

PEAK HOURS		COUNT PERIODS
07:15 AM - 08:15 AM		7:00 AM - 09:00 AM
NONE		NONE
04:45 PM - 05:45 PM		4:00 PM - 06:00 PM

SOUTHBOUND (SR 43/Highland Ave)

AM	36	351	28	0	590	AM
NOON	0	0	0	0	0	NOON
PM	79	510	88	1	632	PM
	0	2	1	0		

EASTBOUND (Nebraska Ave)

AM	NOON	PM	
134	0	175	
0	0	0	0
78	0	88	0
67	0	85	1
1	0	17	0

WESTBOUND (Nebraska Ave)

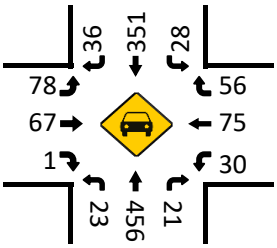
PM	NOON	AM	
72	0	56	0
80	0	75	1
40	0	30	0
0	0	0	0
211	0	116	

NORTHBOUND (SR 43/Highland Ave)

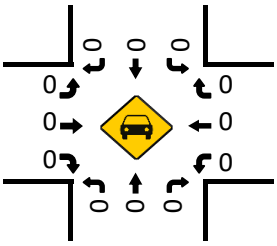
PM	567	0	16	471	38	PM
NOON	0	0	0	0	0	NOON
AM	384	2	23	456	21	AM
		0	1	2	0	

CONTROL			
Signalized			
TEV	1224	0	1585
	AM	NOON	PM
PHF	0.97		0.92

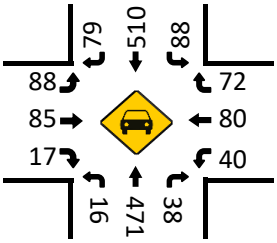
Totals (AM)



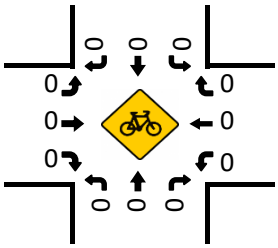
Totals (NOON)



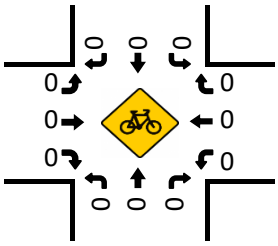
Totals (PM)



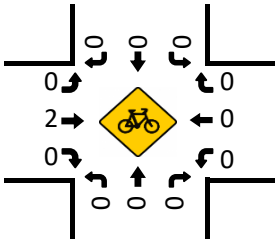
Total Bikes (AM)



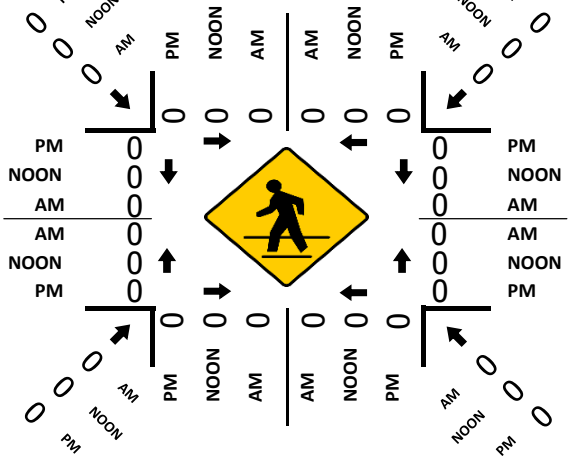
Total Bikes (NOON)



Total Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Mitchell Ave & Nebraska Ave

Peak Hour Turning Movement Count

ID: 22-090009-001
City: Selma

Day: Thursday
Date: 1/13/2022

	PEAK HOURS	COUNT PERIODS
AM	07:30 AM - 08:30 AM	7:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:30 PM - 05:30 PM	4:00 PM - 06:00 PM

SOUTHBOUND — Mitchell Ave

	Right	Thru	Left	U-Turn	Departing
AM	29	21	66	0	88
NOON	0	0	0	0	0
PM	25	18	39	0	78
Lanes	0	1	0	0	

EASTBOUND — Nebraska Ave

	AM	NOON	PM	Lanes
Departing	139	0	200	
U-Turn	0	0	0	0
Left	16	0	32	0
Thru	95	0	211	1
Right	5	0	35	0

WESTBOUND — Nebraska Ave

	Lanes	PM	NOON	AM
Right	1	33	0	52
Thru	1	161	0	97
Left	0	20	0	17
U-Turn	0	0	0	0
Departing		276	0	190

NORTHBOUND — Mitchell Ave

	Departing	U-Turn	Left	Thru	Right
Lanes		0	0	1	0
PM	73	0	14	13	26
NOON	0	0	0	0	0
AM	43	0	13	20	29

CONTROL

4-Way Stop

	AM	NOON	PM
TEV	460	0	627
PHF	0.91		0.88

Totals (AM)

Approach	U-Turn	Left	Thru	Right
Southbound		66	21	29
Eastbound		16	95	5
Westbound		17	97	52
Northbound		13	20	29

Totals (NOON)

Approach	Left	Thru	Right
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0

Totals (PM)

Approach	Left	Thru	Right
Southbound	39	18	25
Eastbound	32	211	35
Westbound	20	161	33
Northbound	14	13	26

Total Bikes (AM)

Approach	Left	Thru	Right
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0

Total Bikes (NOON)

Approach	Left	Thru	Right
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0

Total Bikes (PM)

Approach	Left	Thru	Right
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North leg	Eastbound	8	0	7
North leg	Westbound	18	0	2
West leg	Southbound	0	0	0
West leg	Northbound	0	0	0
East leg	Southbound	12	0	7
East leg	Northbound	43	0	3
South leg	Eastbound	0	0	0
South leg	Westbound	0	0	0
NW diagonal		0	0	0
NE diagonal		0	0	0
SW diagonal		0	0	0
SE diagonal		0	0	0

Prepared by National Data & Surveying Services

SR 99 NB Ramps & 2nd St

Peak Hour Turning Movement Count

ID: 22-090012-001
City: Selma

Day: Tuesday
Date: 1/25/2022

PEAK HOURS		COUNT PERIODS
07:30 AM - 08:30 AM		7:00 AM - 09:00 AM
NONE		NONE
04:15 PM - 05:15 PM		4:00 PM - 06:00 PM

SOUTHBOUND (SR 99 NB Ramps)

AM	0	0	0	0	224	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	250	PM
	0	0	0	0		

EASTBOUND (2nd St)

AM	NOON	PM		
400	0	528		
0	0	0	0	
76	0	66	0.5	
478	0	520	1.5	
0	0	0	0	

WESTBOUND (2nd St)

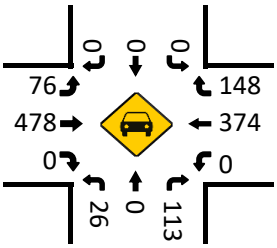
PM	NOON	AM	
183	0	148	0
497	0	374	2
0	0	0	0
0	0	0	0
652	0	591	

NORTHBOUND (SR 99 NB Ramps)

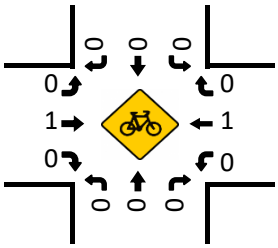
	0	0	1	1	
PM	0	0	31	1	132	PM
NOON	0	0	0	0	0	NOON
AM	0	0	26	0	113	AM

CONTROL			
1-Way Stop(NB)			
TEV	1215	0	1430
	AM	NOON	PM
PHF	0.84		0.98

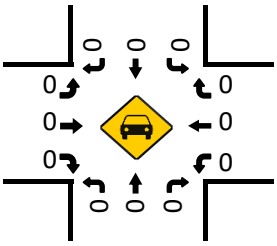
Totals (AM)



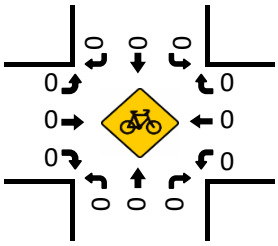
Total Bikes (AM)



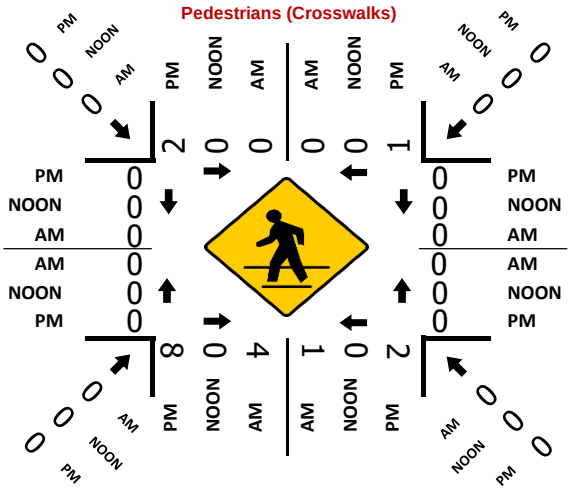
Totals (NOON)



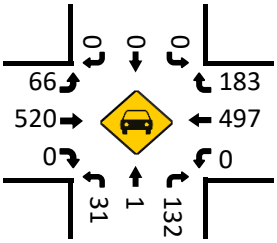
Total Bikes (NOON)



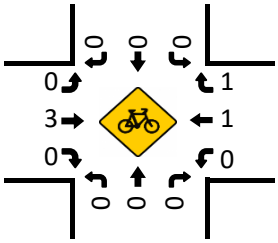
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

SR 99 SB Ramps & 2nd St

Peak Hour Turning Movement Count

ID: 22-090012-002
City: Selma

Day: Tuesday
Date: 1/25/2022

PEAK HOURS		COUNT PERIODS
07:30 AM - 08:30 AM		7:00 AM - 09:00 AM
NONE		NONE
04:15 PM - 05:15 PM		4:00 PM - 06:00 PM

SOUTHBOUND (SR 99 SB Ramps)

AM	31	0	144	0	0	AM
NOON	0	0	0	0	0	NOON
PM	92	0	161	0	0	PM
	0	2	0	0		

EASTBOUND (2nd St)

AM	NOON	PM	
335	0	498	
0	0	0	0
0	0	0	0
408	0	426	2
30	0	40	0

WESTBOUND (2nd St)

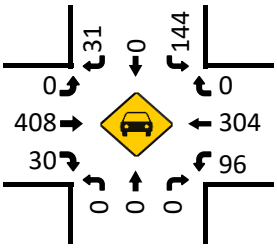
PM	NOON	AM	
0	0	0	0
406	0	304	2
121	0	96	1
0	0	0	0
587	0	552	

NORTHBOUND (SR 99 SB Ramps)

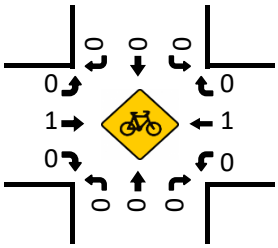
PM	161	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	126	0	0	0	0	AM
		0	0	0	0	

CONTROL			
1-Way Stop(SB)			
TEV	1013	0	1246
	AM	NOON	PM
PHF	0.80		0.94

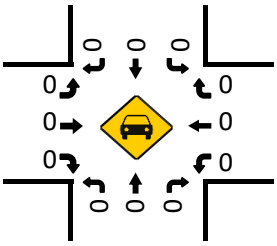
Totals (AM)



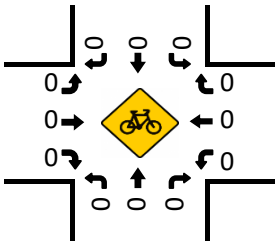
Total Bikes (AM)



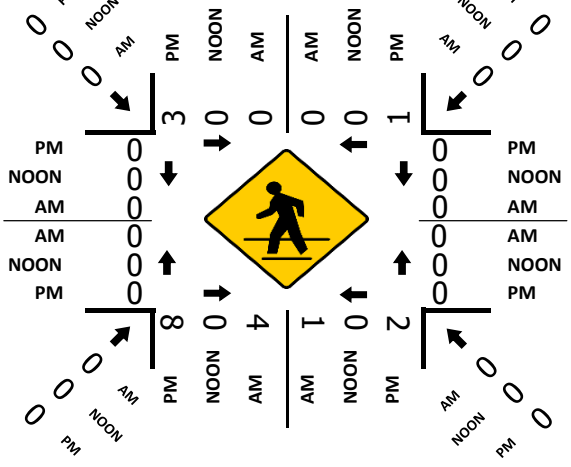
Totals (NOON)



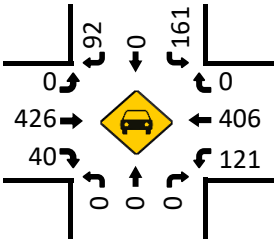
Total Bikes (NOON)



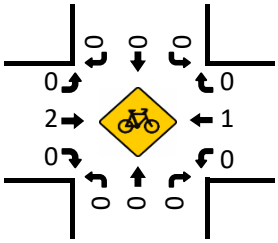
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

Golden State Hwy/SR 99 SB Ramp Off & E Floral Ave

Peak Hour Turning Movement Count

ID: 22-090123-001
City: Selma

Day: Tuesday
Date: 10/25/2022

PEAK HOURS	COUNT PERIODS
08:00 AM - 09:00 AM	7:00 AM - 09:00 AM
NONE	NONE
04:00 PM - 05:00 PM	4:00 PM - 06:00 PM

SOUTHBOUND — Golden State Hwy/SR 99 SB Ramp Off

AM	82	32	180	0	0	AM
NOON	0	0	0	0	0	NOON
PM	130	50	265	0	0	PM
	1	1	2	0		

EASTBOUND — E Floral Ave

AM	NOON	PM	
482	0	720	⇦
1	0	1	↶ 0
0	0	0	↱ 0
304	0	557	→ 2
51	0	99	↴ 1

WESTBOUND — E Floral Ave

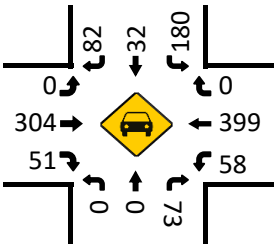
	PM	NOON	AM
0 ↰	0	0	0
2 ←	589	0	399
1 ↰	101	0	58
0 ↶	0	0	0
⇨	950	0	557

NORTHBOUND — Golden State Hwy/SR 99 SB Ramp Off

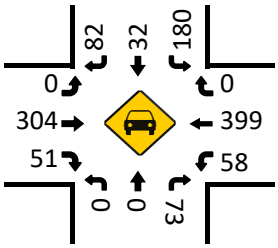
PM	250	0	0	0	128	PM
NOON	0	0	0	0	0	NOON
AM	141	0	0	0	73	AM
		0	0	0	1	

CONTROL			
Signalized			
TEV	1180 AM	0 NOON	1920 PM
PHF	0.92		0.95

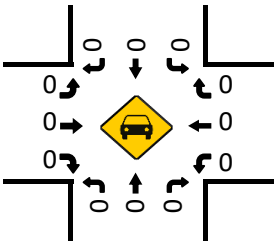
Totals (AM)



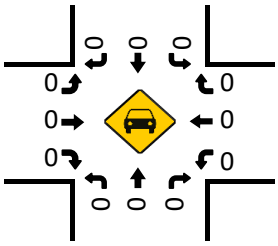
Totals (AM)



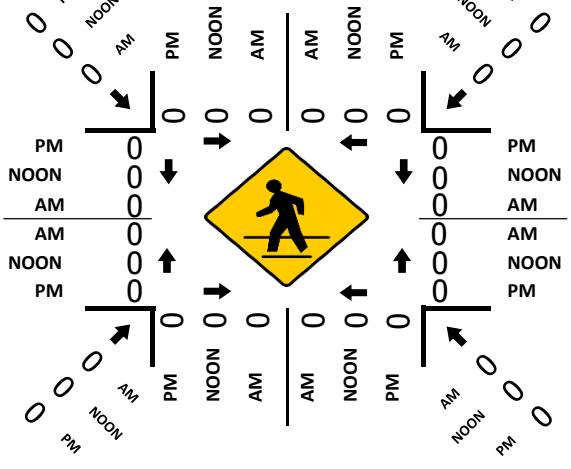
Totals (NOON)



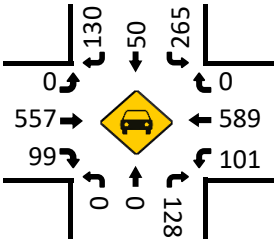
Totals (NOON)



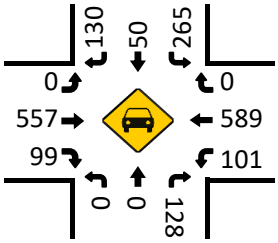
Pedestrians (Crosswalks)



Totals (PM)



Totals (PM)



Prepared by National Data & Surveying Services

Golden State Hwy/SR 99 NB Ramp On Ramp & E Floral Ave

Peak Hour Turning Movement Count

ID: 22-090123-002
City: Selma

Day: Tuesday
Date: 10/25/2022

PEAK HOURS	
	08:00 AM - 09:00 AM
	NONE
	04:45 PM - 05:45 PM

COUNT PERIODS	
	7:00 AM - 09:00 AM
	NONE
	4:00 PM - 06:00 PM

SOUTHBOUND — Golden State Hwy/SR 99 NB Ramp On Ramp

AM	0	0	0	0	244	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	235	PM

EASTBOUND — E Floral Ave

AM	NOON	PM		
455	0	637	⇦	
0	0	0	↶	0
0	0	0	↱	0
560	0	1012	→	2
0	0	0	↳	0
AM	NOON	PM		

WESTBOUND — E Floral Ave

PM	NOON	AM		
			⇧	
235	0	244	↰	1
637	0	455	←	2
0	0	0	↲	0
0	0	0	↰	0
1012	0	560	⇨	
PM	NOON	AM		

NORTHBOUND — Golden State Hwy/SR 99 NB Ramp On Ramp

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

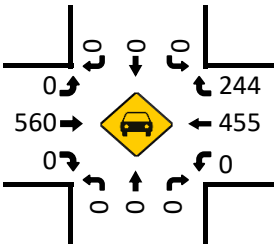
⇩	↶	↰	↑	↱
	0	0	0	0

CONTROL

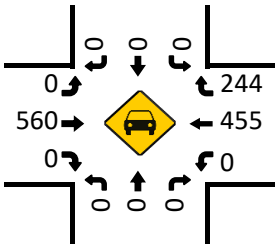
No Control

	AM	NOON	PM
TEV	1259	0	1884
PHF	0.92		0.97

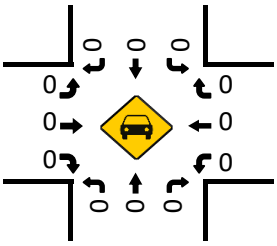
Totals (AM)



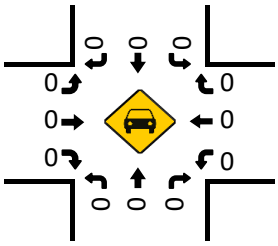
Totals (AM)



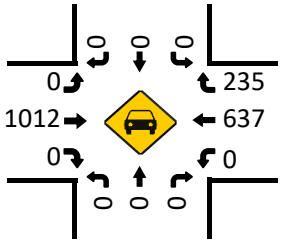
Totals (NOON)



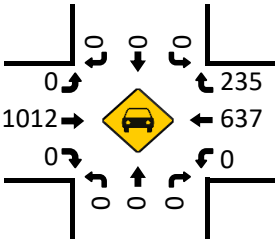
Totals (NOON)



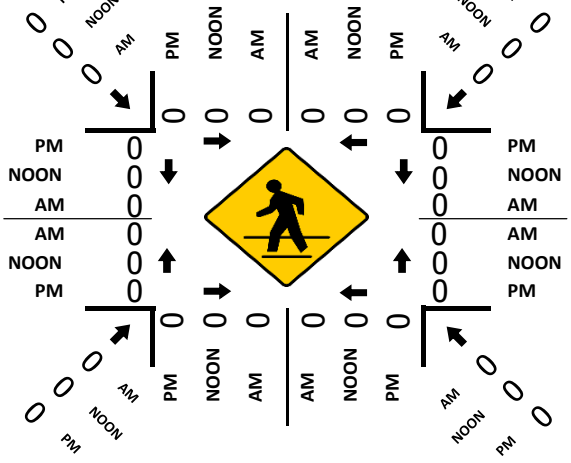
Totals (PM)



Totals (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

S Highland Ave & E Floral Ave

Peak Hour Turning Movement Count

ID: 22-090123-003
City: Selma

Day: Tuesday
Date: 10/25/2022

PEAK HOURS	COUNT PERIODS
07:45 AM - 08:45 AM	7:00 AM - 09:00 AM
NONE	NONE
04:30 PM - 05:30 PM	4:00 PM - 06:00 PM

SOUTHBOUND (S Highland Ave)

AM	176	190	19	0	298	AM
NOON	0	0	0	0	0	NOON
PM	271	237	58	0	477	PM
	2	2	1	0		

EASTBOUND (E Floral Ave)

AM	NOON	PM		
697	0	894		
1	0	2		0
113	0	192		1
360	0	613		2
74	0	183		1

WESTBOUND (E Floral Ave)

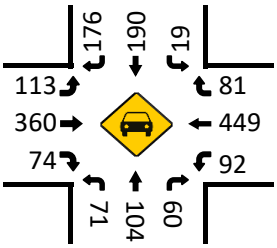
	PM	NOON	AM
0.5	103	0	81
1.5	514	0	449
2	105	0	92
0	0	0	0
	790	0	439

NORTHBOUND (S Highland Ave)

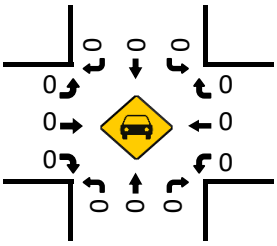
PM	526	1	107	182	119	PM
NOON	0	0	0	0	0	NOON
AM	356	0	71	104	60	AM
		0	2	2	1	

CONTROL			
Signalized			
TEV	1790 AM	0 NOON	2687 PM
PHF	0.91		0.98

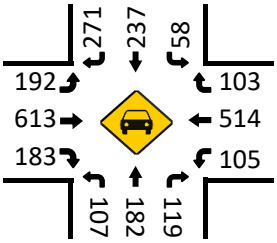
Totals (AM)



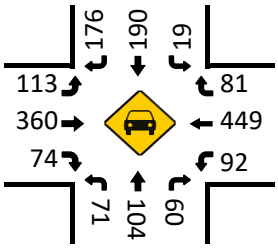
Totals (NOON)



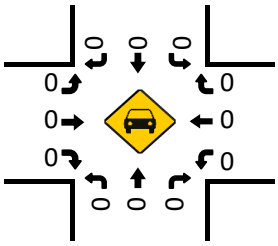
Totals (PM)



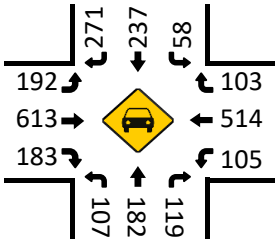
Totals (AM)



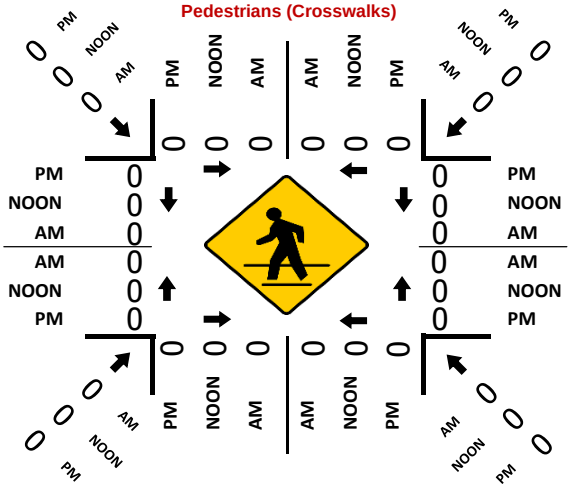
Totals (NOON)



Totals (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Golden State Hwy/SR 99 NB Ramp Off Ramp & E Floral Ave

Peak Hour Turning Movement Count

ID: 22-090123-004
City: Selma

Day: Tuesday
Date: 10/25/2022

PEAK HOURS		COUNT PERIODS
07:45 AM - 08:45 AM	AM	7:00 AM - 09:00 AM
NONE	NOON	NONE
04:45 PM - 05:45 PM	PM	4:00 PM - 06:00 PM

Golden State Hwy/SR 99 NB Ramp Off Ramp

SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM
	0	0	0	0		

EASTBOUND — E Floral Ave

AM	NOON	PM	
637	0	714	
0	0	0	0
0	0	0	0
370	0	725	2
0	0	0	0
AM	NOON	PM	

CONTROL

Signalized

	AM	NOON	PM
TEV	1051	0	1492
PHF	0.94		0.97

WESTBOUND — E Floral Ave

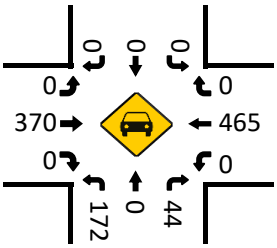
	PM	NOON	AM
0	0	0	0
2	558	0	465
0	0	0	0
0	0	0	0
	778	0	414
	PM	NOON	AM

		0	0	1	1	
PM	0	0	156	0	53	PM
NOON	0	0	0	0	0	NOON
AM	0	0	172	0	44	AM

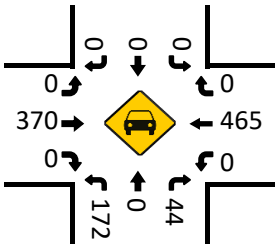
NORTHBOUND

Golden State Hwy/SR 99 NB Ramp Off Ramp

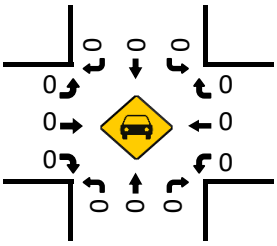
Totals (AM)



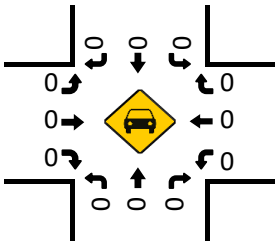
Totals (AM)



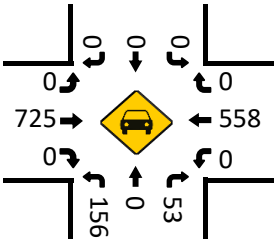
Totals (NOON)



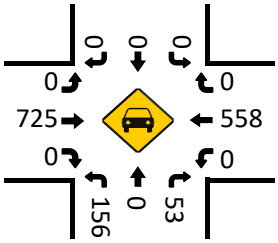
Totals (NOON)



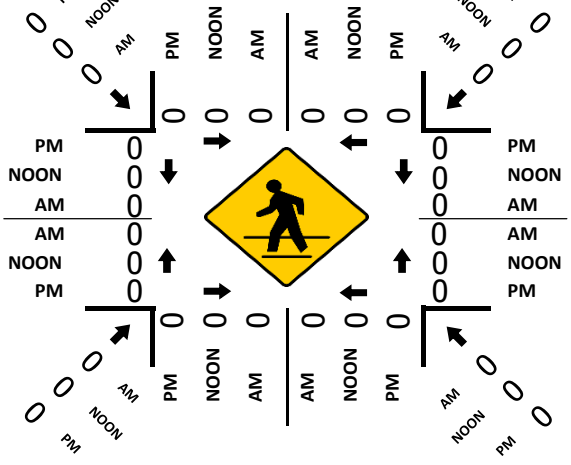
Totals (PM)



Totals (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Thompson Ave & Nebraska Ave

Peak Hour Turning Movement Count

ID: 22-090123-005
City: Selma

Day: Tuesday
Date: 10/25/2022

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	7:00 AM - 09:00 AM
NONE	NONE
04:15 PM - 05:15 PM	4:00 PM - 06:00 PM

SOUTHBOUND (Thompson Ave)

AM	13	60	61	0	95	AM
NOON	0	0	0	0	0	NOON
PM	7	31	26	0	63	PM
	1	0.5	0.5	0		

EASTBOUND (Nebraska Ave)

AM	NOON	PM	
179	0	209	
0	0	0	0
7	0	7	0
166	0	185	1
27	0	42	0

WESTBOUND (Nebraska Ave)

	PM	NOON	AM
0	21	0	22
1	158	0	121
0	77	0	44
0	0	0	0
	276	0	294

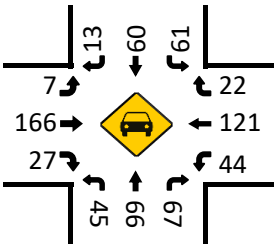
NORTHBOUND (Thompson Ave)

PM	150	0	44	35	65	PM
NOON	0	0	0	0	0	NOON
AM	131	0	45	66	67	AM
		0	0	1	0	

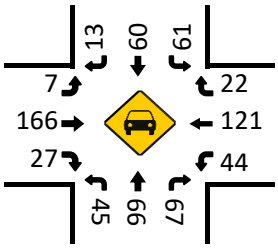
CONTROL: 4-Way Stop

	AM	NOON	PM
TEV	699	0	698
PHF	0.81		0.95

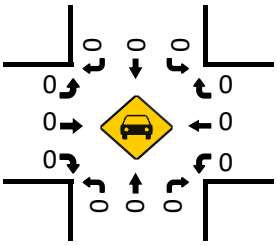
Totals (AM)



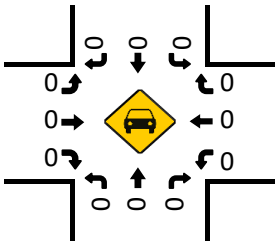
Totals (AM)



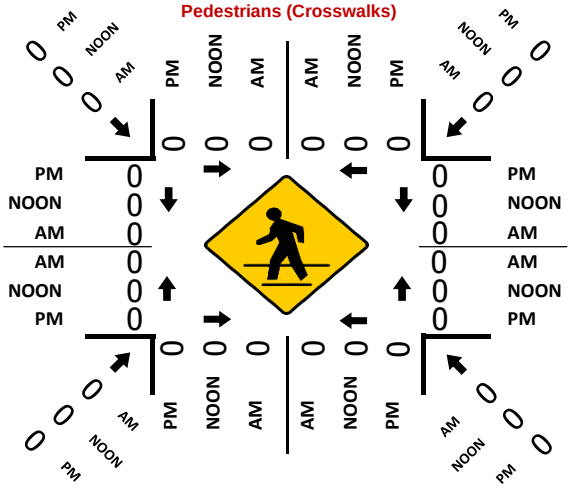
Totals (NOON)



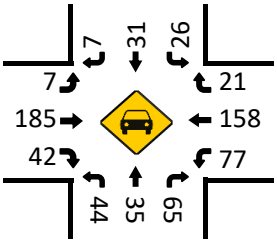
Totals (NOON)



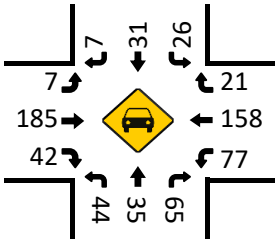
Pedestrians (Crosswalks)



Totals (PM)



Totals (PM)



Appendix-B
Synchro Worksheets

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	12	5	21	3	122	7	546	36	79	408	8
Future Vol, veh/h	8	12	5	21	3	122	7	546	36	79	408	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	-	125	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	9	13	5	23	3	133	8	593	39	86	443	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	934	1268	226	1029	1253	316	452	0	0	632	0	0
Stage 1	620	620	-	629	629	-	-	-	-	-	-	-
Stage 2	314	648	-	400	624	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	219	166	774	187	169	677	1098	-	-	940	-	-
Stage 1	440	476	-	434	471	-	-	-	-	-	-	-
Stage 2	669	462	-	595	474	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	160	150	774	160	153	677	1098	-	-	940	-	-
Mov Cap-2 Maneuver	160	150	-	160	153	-	-	-	-	-	-	-
Stage 1	437	433	-	431	468	-	-	-	-	-	-	-
Stage 2	530	459	-	521	431	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	27.7	17.7	0.1	1.5
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1098	-	-	154	774	441	940	-	-
HCM Lane V/C Ratio	0.007	-	-	0.141	0.007	0.36	0.091	-	-
HCM Control Delay (s)	8.3	-	-	32.2	9.7	17.7	9.2	-	-
HCM Lane LOS	A	-	-	D	A	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0	1.6	0.3	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1	0	-	0	1	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1615	-	-	-	1019	1081
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1615	-	-	-	1019	1081
Mov Cap-2 Maneuver	-	-	-	-	1019	-
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1615	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

HCM 6th Signalized Intersection Summary
3: Highland Avenue & Nebraska Avenue

12/16/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	67	1	30	75	56	23	456	21	28	351	36
Future Volume (veh/h)	78	67	1	30	75	56	23	456	21	28	351	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	85	73	1	33	82	61	25	496	23	30	382	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	262	140	2	142	142	93	54	1600	74	63	1523	155
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.03	0.47	0.47	0.04	0.47	0.47
Sat Flow, veh/h	776	885	11	217	898	592	1767	3431	159	1767	3231	328
Grp Volume(v), veh/h	159	0	0	176	0	0	25	254	265	30	207	214
Grp Sat Flow(s),veh/h/ln	1672	0	0	1707	0	0	1767	1763	1827	1767	1763	1796
Q Serve(g_s), s	0.0	0.0	0.0	0.5	0.0	0.0	0.6	3.6	3.6	0.7	2.8	2.8
Cycle Q Clear(g_c), s	3.2	0.0	0.0	3.7	0.0	0.0	0.6	3.6	3.6	0.7	2.8	2.8
Prop In Lane	0.53		0.01	0.19		0.35	1.00		0.09	1.00		0.18
Lane Grp Cap(c), veh/h	403	0	0	377	0	0	54	822	852	63	831	847
V/C Ratio(X)	0.39	0.00	0.00	0.47	0.00	0.00	0.47	0.31	0.31	0.48	0.25	0.25
Avail Cap(c_a), veh/h	836	0	0	859	0	0	223	822	852	223	831	847
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.4	0.0	0.0	15.6	0.0	0.0	18.9	6.6	6.6	18.8	6.3	6.3
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.9	0.0	0.0	6.2	1.0	0.9	5.6	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	1.3	0.0	0.0	0.3	1.1	1.2	0.3	0.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.0	0.0	0.0	16.5	0.0	0.0	25.1	7.6	7.6	24.3	7.0	7.0
LnGrp LOS	B	A	A	B	A	A	C	A	A	C	A	A
Approach Vol, veh/h		159			176			544			451	
Approach Delay, s/veh		16.0			16.5			8.4			8.2	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.9	23.0		10.8	5.7	23.2		10.8
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.0	18.5		18.0	5.0	18.5		18.0
Max Q Clear Time (g_c+I1), s	2.7	5.6		5.2	2.6	4.8		5.7
Green Ext Time (p_c), s	0.0	2.5		0.6	0.0	2.1		0.7

Intersection Summary			
HCM 6th Ctrl Delay			10.3
HCM 6th LOS			B

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	95	5	17	97	52	13	20	29	66	21	29
Future Vol, veh/h	16	95	5	17	97	52	13	20	29	66	21	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	17	103	5	18	105	57	14	22	32	72	23	32
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	8.7	8.6	8.1	8.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	21%	14%	15%	0%	57%
Vol Thru, %	32%	82%	85%	0%	18%
Vol Right, %	47%	4%	0%	100%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	62	116	114	52	116
LT Vol	13	16	17	0	66
Through Vol	20	95	97	0	21
RT Vol	29	5	0	52	29
Lane Flow Rate	67	126	124	57	126
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.086	0.166	0.179	0.069	0.166
Departure Headway (Hd)	4.601	4.729	5.2	4.421	4.726
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	777	758	690	809	759
Service Time	2.638	2.764	2.933	2.154	2.757
HCM Lane V/C Ratio	0.086	0.166	0.18	0.07	0.166
HCM Control Delay	8.1	8.7	9.1	7.5	8.7
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.3	0.6	0.6	0.2	0.6

Intersection	
Int Delay, s/veh	5.1

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	144	0	31	0	0	0	0	408	30	96	304	0
Future Vol, veh/h	144	0	31	0	0	0	0	408	30	96	304	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	22355	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	157	0	34	0	0	0	0	443	33	104	330	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	760	1014	165	-	0	0	476	0	0
Stage 1	538	538	-	-	-	-	-	-	-
Stage 2	222	476	-	-	-	-	-	-	-
Critical Hdwy	6.86	6.56	6.96	-	-	-	4.16	-	-
Critical Hdwy Stg 1	5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	340	235	847	0	-	-	1075	-	0
Stage 1	547	518	-	0	-	-	-	-	0
Stage 2	791	552	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	307	0	847	-	-	-	1075	-	-
Mov Cap-2 Maneuver	307	0	-	-	-	-	-	-	-
Stage 1	547	0	-	-	-	-	-	-	-
Stage 2	714	0	-	-	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	25	0	2.1
HCM LOS	D		

Minor Lane/Major Mvmt	NET	NER	SELn1	SELn2	SWL	SWT
Capacity (veh/h)	-	-	307	847	1075	-
HCM Lane V/C Ratio	-	-	0.51	0.04	0.097	-
HCM Control Delay (s)	-	-	28.3	9.4	8.7	-
HCM Lane LOS	-	-	D	A	A	-
HCM 95th %tile Q(veh)	-	-	2.7	0.1	0.3	-

Intersection	
Int Delay, s/veh	2.2

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	26	0	113	76	478	0	0	374	148
Future Vol, veh/h	0	0	0	26	0	113	76	478	0	0	374	148
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	28	0	123	83	520	0	0	407	161

Major/Minor	Minor1		Major1			Major2			
Conflicting Flow All	890	1254	260	568	0	-	-	-	0
Stage 1	686	686	-	-	-	-	-	-	-
Stage 2	204	568	-	-	-	-	-	-	-
Critical Hdwy	6.86	6.56	6.96	4.16	-	-	-	-	-
Critical Hdwy Stg 1	5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	2.23	-	-	-	-	-
Pot Cap-1 Maneuver	280	169	736	993	-	0	0	-	-
Stage 1	459	444	-	-	-	0	0	-	-
Stage 2	807	502	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	247	0	736	993	-	-	-	-	-
Mov Cap-2 Maneuver	247	0	-	-	-	-	-	-	-
Stage 1	405	0	-	-	-	-	-	-	-
Stage 2	807	0	-	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	12.9	1.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	NWLn1	NWLn2	SWT	SWR
Capacity (veh/h)	993	-	247	736	-	-
HCM Lane V/C Ratio	0.083	-	0.114	0.167	-	-
HCM Control Delay (s)	9	0.4	21.4	10.9	-	-
HCM Lane LOS	A	A	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.4	0.6	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	304	51	58	399	0	0	0	73	180	32	82
Future Volume (veh/h)	0	304	51	58	399	0	0	0	73	180	32	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1856	1856	1856	1856	0	0	0	1856	1856	1856	1856
Adj Flow Rate, veh/h	0	330	55	63	434	0	0	0	79	196	35	89
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	3	3	3	3	0	0	0	3	3	3	3
Cap, veh/h	0	620	277	110	1217	0	0	0	0	1510	818	693
Arrive On Green	0.00	0.18	0.18	0.06	0.35	0.00	0.00	0.00	0.00	0.44	0.44	0.44
Sat Flow, veh/h	0	3618	1572	1767	3618	0		0		3428	1856	1572
Grp Volume(v), veh/h	0	330	55	63	434	0		0.0		196	35	89
Grp Sat Flow(s),veh/h/ln	0	1763	1572	1767	1763	0				1714	1856	1572
Q Serve(g_s), s	0.0	3.6	1.3	1.5	3.9	0.0				1.4	0.5	1.4
Cycle Q Clear(g_c), s	0.0	3.6	1.3	1.5	3.9	0.0				1.4	0.5	1.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	620	277	110	1217	0				1510	818	693
V/C Ratio(X)	0.00	0.53	0.20	0.58	0.36	0.00				0.13	0.04	0.13
Avail Cap(c_a), veh/h	0	1511	674	231	2351	0				1510	818	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	15.7	14.8	19.2	10.3	0.0				7.0	6.7	7.0
Incr Delay (d2), s/veh	0.0	0.7	0.3	4.7	0.2	0.0				0.2	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.3	0.4	0.7	1.2	0.0				0.4	0.2	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.4	15.1	23.9	10.4	0.0				7.1	6.8	7.3
LnGrp LOS	A	B	B	C	B	A				A	A	A
Approach Vol, veh/h		385			497						320	
Approach Delay, s/veh		16.3			12.1						7.2	
Approach LOS		B			B						A	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		7.1	11.9		23.0		19.0					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		5.5	18.0		18.5		28.0					
Max Q Clear Time (g_c+I1), s		3.5	5.6		3.4		5.9					
Green Ext Time (p_c), s		0.0	1.8		1.0		2.9					

Intersection Summary	
HCM 6th Ctrl Delay	12.1
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↱			
Traffic Vol, veh/h	0	560	455	244	0	0
Future Vol, veh/h	0	560	455	244	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	16965	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	609	495	265	0	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	-	0	609	0
Stage 1	-	-	0	-
Stage 2	-	-	609	-
Critical Hdwy	-	-	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.56	-
Follow-up Hdwy	-	-	4.03	3.33
Pot Cap-1 Maneuver	0	-	~ 406	-
Stage 1	0	-	-	-
Stage 2	0	-	~ 481	-
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	0	-
Mov Cap-2 Maneuver	-	-	0	-
Stage 1	-	-	0	-
Stage 2	-	-	0	-

Approach	EB	WB
HCM Control Delay, s	0	
HCM LOS		-

Minor Lane/Major Mvmt	EBT	WBLn1	WBLn2
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	-
HCM Lane LOS	-	-	-
HCM 95th %tile Q(veh)	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	360	74	92	449	81	71	104	60	19	190	176
Future Volume (veh/h)	113	360	74	92	449	81	71	104	60	19	190	176
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	123	391	80	100	488	88	77	113	65	21	207	191
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	554	2218	989	1155	1879	337	598	1043	465	386	1043	819
Arrive On Green	0.63	0.63	0.63	0.84	0.84	0.84	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	831	3526	1572	1775	2986	536	1899	3526	1572	1197	3526	2768
Grp Volume(v), veh/h	123	391	80	100	287	289	77	113	65	21	207	191
Grp Sat Flow(s),veh/h/ln	831	1763	1572	888	1763	1759	949	1763	1572	1197	1763	1384
Q Serve(g_s), s	8.5	5.6	2.4	1.6	4.1	4.1	3.8	2.8	3.6	1.6	5.3	6.3
Cycle Q Clear(g_c), s	12.6	5.6	2.4	7.2	4.1	4.1	9.1	2.8	3.6	4.4	5.3	6.3
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	554	2218	989	1155	1109	1107	598	1043	465	386	1043	819
V/C Ratio(X)	0.22	0.18	0.08	0.09	0.26	0.26	0.13	0.11	0.14	0.05	0.20	0.23
Avail Cap(c_a), veh/h	554	2218	989	1155	1109	1107	598	1043	465	386	1043	819
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.6	9.3	8.7	4.9	4.0	4.0	35.0	30.7	31.0	32.3	31.6	32.0
Incr Delay (d2), s/veh	0.9	0.2	0.2	0.1	0.6	0.6	0.4	0.2	0.6	0.3	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	2.1	0.8	0.3	1.5	1.5	0.9	1.2	1.4	0.5	2.3	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.5	9.5	8.9	5.0	4.5	4.5	35.4	30.9	31.7	32.6	32.0	32.6
LnGrp LOS	B	A	A	A	A	A	D	C	C	C	C	C
Approach Vol, veh/h		594			676			255			419	
Approach Delay, s/veh		10.0			4.6			32.5			32.3	
Approach LOS		B			A			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	40.0	80.0	40.0	80.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	35.5	75.5	35.5	75.5
Max Q Clear Time (g_c+I1), s	11.1	14.6	8.3	9.2
Green Ext Time (p_c), s	1.2	4.2	2.1	4.9

Intersection Summary	
HCM 6th Ctrl Delay	15.9
HCM 6th LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	370	0	0	465	172	44
Future Volume (veh/h)	370	0	0	465	172	44
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	0	0	1856	1856	1856
Adj Flow Rate, veh/h	402	0	0	505	187	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	0	3	3	3
Cap, veh/h	1719	0	0	1719	773	688
Arrive On Green	0.98	0.00	0.00	0.49	0.44	0.44
Sat Flow, veh/h	3711	0	0	3711	1767	1572
Grp Volume(v), veh/h	402	0	0	505	187	48
Grp Sat Flow(s),veh/h/ln	1763	0	0	1763	1767	1572
Q Serve(g_s), s	0.4	0.0	0.0	10.3	8.0	2.1
Cycle Q Clear(g_c), s	0.4	0.0	0.0	10.3	8.0	2.1
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	1719	0	0	1719	773	688
V/C Ratio(X)	0.23	0.00	0.00	0.29	0.24	0.07
Avail Cap(c_a), veh/h	1719	0	0	1719	773	688
HCM Platoon Ratio	2.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.8	0.0	0.0	18.4	21.2	19.6
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.4	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	4.3	3.5	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.1	0.0	0.0	18.8	22.0	19.8
LnGrp LOS	A	A	A	B	C	B
Approach Vol, veh/h	402			505	235	
Approach Delay, s/veh	1.1			18.8	21.5	
Approach LOS	A			B	C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	57.0	63.0	63.0
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	52.5	58.5	58.5
Max Q Clear Time (g_c+I1), s	10.0	2.4	12.3
Green Ext Time (p_c), s	0.7	3.0	3.9

Intersection Summary	
HCM 6th Ctrl Delay	13.1
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	166	27	44	121	22	45	66	67	61	60	13
Future Vol, veh/h	7	166	27	44	121	22	45	66	67	61	60	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	8	180	29	48	132	24	49	72	73	66	65	14
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	10.5	10.4	10.4	10.4
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	25%	4%	24%	50%	0%
Vol Thru, %	37%	83%	65%	50%	0%
Vol Right, %	38%	14%	12%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	178	200	187	121	13
LT Vol	45	7	44	61	0
Through Vol	66	166	121	60	0
RT Vol	67	27	22	0	13
Lane Flow Rate	193	217	203	132	14
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.283	0.311	0.295	0.226	0.021
Departure Headway (Hd)	5.264	5.157	5.226	6.191	5.226
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	683	698	689	580	685
Service Time	3.293	3.185	3.254	3.921	2.956
HCM Lane V/C Ratio	0.283	0.311	0.295	0.228	0.02
HCM Control Delay	10.4	10.5	10.4	10.7	8.1
HCM Lane LOS	B	B	B	B	A
HCM 95th-tile Q	1.2	1.3	1.2	0.9	0.1

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	7	8	16	7	127	8	584	36	200	655	11
Future Vol, veh/h	6	7	8	16	7	127	8	584	36	200	655	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	-	125	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	8	9	17	8	138	9	635	39	217	712	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1492	1844	362	1467	1831	337	724	0	0	674	0	0
Stage 1	1152	1152	-	673	673	-	-	-	-	-	-	-
Stage 2	340	692	-	794	1158	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	85	73	632	88	75	656	868	-	-	906	-	-
Stage 1	209	268	-	409	450	-	-	-	-	-	-	-
Stage 2	645	441	-	345	267	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	49	55	632	63	56	656	868	-	-	906	-	-
Mov Cap-2 Maneuver	49	55	-	63	56	-	-	-	-	-	-	-
Stage 1	207	204	-	405	446	-	-	-	-	-	-	-
Stage 2	495	437	-	249	203	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	65	39	0.1	2.4
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	868	-	-	52	632	262	906	-	-
HCM Lane V/C Ratio	0.01	-	-	0.272	0.014	0.622	0.24	-	-
HCM Control Delay (s)	9.2	-	-	98.3	10.8	39	10.2	-	-
HCM Lane LOS	A	-	-	F	B	E	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.9	0	3.8	0.9	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1	0	-	0	1	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1615	-	-	-	1019	1081
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1615	-	-	-	1019	1081
Mov Cap-2 Maneuver	-	-	-	-	1019	-
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1615	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	85	17	40	80	72	16	471	38	88	510	79
Future Volume (veh/h)	88	85	17	40	80	72	16	471	38	88	510	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	96	92	18	43	87	78	17	512	41	96	554	86
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	242	150	26	144	144	112	38	1426	114	140	1497	232
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.02	0.43	0.43	0.08	0.49	0.49
Sat Flow, veh/h	679	859	147	246	824	642	1767	3307	264	1767	3060	473
Grp Volume(v), veh/h	206	0	0	208	0	0	17	272	281	96	318	322
Grp Sat Flow(s),veh/h/ln	1686	0	0	1712	0	0	1767	1763	1808	1767	1763	1770
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0	0.4	4.5	4.5	2.3	4.8	4.9
Cycle Q Clear(g_c), s	4.5	0.0	0.0	4.7	0.0	0.0	0.4	4.5	4.5	2.3	4.8	4.9
Prop In Lane	0.47		0.09	0.21		0.37	1.00		0.15	1.00		0.27
Lane Grp Cap(c), veh/h	417	0	0	400	0	0	38	760	780	140	863	866
V/C Ratio(X)	0.49	0.00	0.00	0.52	0.00	0.00	0.45	0.36	0.36	0.68	0.37	0.37
Avail Cap(c_a), veh/h	777	0	0	791	0	0	206	760	780	206	863	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.5	0.0	0.0	16.6	0.0	0.0	20.7	8.2	8.2	19.2	6.8	6.8
Incr Delay (d2), s/veh	0.9	0.0	0.0	1.0	0.0	0.0	8.2	1.3	1.3	5.8	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.0	1.8	0.0	0.0	0.2	1.5	1.6	1.0	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.4	0.0	0.0	17.6	0.0	0.0	28.9	9.5	9.5	25.0	8.0	8.1
LnGrp LOS	B	A	A	B	A	A	C	A	A	C	A	A
Approach Vol, veh/h		206			208			570			736	
Approach Delay, s/veh		17.4			17.6			10.1			10.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.9	23.0		12.0	5.4	25.5		12.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.0	18.5		18.0	5.0	18.5		18.0
Max Q Clear Time (g_c+I1), s	4.3	6.5		6.5	2.4	6.9		6.7
Green Ext Time (p_c), s	0.0	2.7		0.8	0.0	3.1		0.9

Intersection Summary	
HCM 6th Ctrl Delay	11.9
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	211	35	20	161	33	14	13	26	39	18	25
Future Vol, veh/h	32	211	35	20	161	33	14	13	26	39	18	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	35	229	38	22	175	36	15	14	28	42	20	27
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	10.7	9.7	8.6	9
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	26%	12%	11%	0%	48%
Vol Thru, %	25%	76%	89%	0%	22%
Vol Right, %	49%	13%	0%	100%	30%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	53	278	181	33	82
LT Vol	14	32	20	0	39
Through Vol	13	211	161	0	18
RT Vol	26	35	0	33	25
Lane Flow Rate	58	302	197	36	89
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.082	0.391	0.286	0.045	0.129
Departure Headway (Hd)	5.095	4.656	5.237	4.477	5.196
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	698	771	685	796	686
Service Time	3.164	2.702	2.987	2.227	3.259
HCM Lane V/C Ratio	0.083	0.392	0.288	0.045	0.13
HCM Control Delay	8.6	10.7	10.1	7.4	9
HCM Lane LOS	A	B	B	A	A
HCM 95th-tile Q	0.3	1.9	1.2	0.1	0.4

Intersection	
Int Delay, s/veh	9.2

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	161	0	92	0	0	0	0	426	40	121	406	0
Future Vol, veh/h	161	0	92	0	0	0	0	426	40	121	406	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	22355	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	175	0	100	0	0	0	0	463	43	132	441	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	937	1211	221	-	0	0	506	0	0
Stage 1	705	705	-	-	-	-	-	-	-
Stage 2	232	506	-	-	-	-	-	-	-
Critical Hdwy	6.86	6.56	6.96	-	-	-	4.16	-	-
Critical Hdwy Stg 1	5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	261	180	780	0	-	-	1048	-	0
Stage 1	448	435	-	0	-	-	-	-	0
Stage 2	782	536	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	228	0	780	-	-	-	1048	-	-
Mov Cap-2 Maneuver	228	0	-	-	-	-	-	-	-
Stage 1	448	0	-	-	-	-	-	-	-
Stage 2	683	0	-	-	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	41.3	0	2
HCM LOS	E		

Minor Lane/Major Mvmt	NET	NER	SELn1	SELn2	SWL	SWT
Capacity (veh/h)	-	-	228	780	1048	-
HCM Lane V/C Ratio	-	-	0.768	0.128	0.125	-
HCM Control Delay (s)	-	-	59	10.3	8.9	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	5.4	0.4	0.4	-

Intersection	
Int Delay, s/veh	2.2

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	31	1	132	66	520	0	0	497	183
Future Vol, veh/h	0	0	0	31	1	132	66	520	0	0	497	183
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	34	1	143	72	565	0	0	540	199

Major/Minor	Minor1		Major1			Major2			
Conflicting Flow All	979	1448	283	739	0	-	-	-	0
Stage 1	709	709	-	-	-	-	-	-	-
Stage 2	270	739	-	-	-	-	-	-	-
Critical Hdwy	6.86	6.56	6.96	4.16	-	-	-	-	-
Critical Hdwy Stg 1	5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	2.23	-	-	-	-	-
Pot Cap-1 Maneuver	246	129	711	857	-	0	0	-	-
Stage 1	446	433	-	-	-	0	0	-	-
Stage 2	748	419	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	216	0	711	857	-	-	-	-	-
Mov Cap-2 Maneuver	216	0	-	-	-	-	-	-	-
Stage 1	392	0	-	-	-	-	-	-	-
Stage 2	748	0	-	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	13.9	1.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	NWLn1	NWLn2	SWT	SWR
Capacity (veh/h)	857	-	216	711	-	-
HCM Lane V/C Ratio	0.084	-	0.161	0.202	-	-
HCM Control Delay (s)	9.6	0.5	24.8	11.3	-	-
HCM Lane LOS	A	A	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.6	0.8	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	557	99	101	589	0	0	0	128	265	50	130
Future Volume (veh/h)	0	557	99	101	589	0	0	0	128	265	50	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1856	1856	1856	1856	0	0	0	1856	1856	1856	1856
Adj Flow Rate, veh/h	0	605	108	110	640	0	0	0	139	288	54	141
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	3	3	3	3	0	0	0	3	3	3	3
Cap, veh/h	0	902	402	141	1513	0	0	0	0	1317	713	604
Arrive On Green	0.00	0.26	0.26	0.08	0.43	0.00	0.00	0.00	0.00	0.38	0.38	0.38
Sat Flow, veh/h	0	3618	1572	1767	3618	0		0		3428	1856	1572
Grp Volume(v), veh/h	0	605	108	110	640	0		0.0		288	54	141
Grp Sat Flow(s),veh/h/ln	0	1763	1572	1767	1763	0				1714	1856	1572
Q Serve(g_s), s	0.0	7.4	2.6	2.9	6.1	0.0				2.7	0.9	2.9
Cycle Q Clear(g_c), s	0.0	7.4	2.6	2.9	6.1	0.0				2.7	0.9	2.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	902	402	141	1513	0				1317	713	604
V/C Ratio(X)	0.00	0.67	0.27	0.78	0.42	0.00				0.22	0.08	0.23
Avail Cap(c_a), veh/h	0	1317	588	202	2049	0				1317	713	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	16.1	14.3	21.7	9.6	0.0				10.0	9.4	10.0
Incr Delay (d2), s/veh	0.0	0.9	0.4	11.5	0.2	0.0				0.4	0.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.7	0.9	1.6	1.9	0.0				0.9	0.3	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.0	14.7	33.2	9.8	0.0				10.4	9.6	10.9
LnGrp LOS	A	B	B	C	A	A				B	A	B
Approach Vol, veh/h		713			750						483	
Approach Delay, s/veh		16.6			13.2						10.4	
Approach LOS		B			B						B	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		8.4	16.8		23.0		25.2					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		5.5	18.0		18.5		28.0					
Max Q Clear Time (g_c+I1), s		4.9	9.4		4.9		8.1					
Green Ext Time (p_c), s		0.0	2.9		1.5		4.3					

Intersection Summary	
HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	0	1012	637	235	0	0
Future Vol, veh/h	0	1012	637	235	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	1100	692	255	0	0
Number of Lanes	0	2	2	0	0	0

Approach	EB	WB
Opposing Approach	WB	EB
Opposing Lanes	2	2
Conflicting Approach Left		
Conflicting Lanes Left	0	0
Conflicting Approach Right		
Conflicting Lanes Right	0	0
HCM Control Delay	5	5
HCM LOS	A	A

Lane	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	47%
Vol Right, %	0%	0%	0%	53%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	506	506	425	447
LT Vol	0	0	0	0
Through Vol	506	506	425	212
RT Vol	0	0	0	235
Lane Flow Rate	550	550	462	486
Geometry Grp	0	0	0	0
Degree of Util (X)	0	0	0	0
Departure Headway (Hd)	0	0	0	0
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	0	0	0
Service Time	0	0	0	0
HCM Lane V/C Ratio	0	0	0	0
HCM Control Delay	5	5	5	5
HCM Lane LOS	N	N	N	N
HCM 95th-tile Q	0	0	0	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	192	613	183	105	514	103	107	182	119	58	237	271
Future Volume (veh/h)	192	613	183	105	514	103	107	182	119	58	237	271
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	209	666	199	114	559	112	116	198	129	63	258	295
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	507	2218	989	788	1842	368	515	1043	465	325	1043	819
Arrive On Green	0.63	0.63	0.63	0.84	0.84	0.84	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	760	3526	1572	1231	2928	585	1646	3526	1572	1045	3526	2768
Grp Volume(v), veh/h	209	666	199	114	336	335	116	198	129	63	258	295
Grp Sat Flow(s),veh/h/ln	760	1763	1572	615	1763	1750	823	1763	1572	1045	1763	1384
Q Serve(g_s), s	18.8	10.4	6.4	3.5	5.0	5.0	6.9	5.0	7.6	5.7	6.7	10.1
Cycle Q Clear(g_c), s	23.8	10.4	6.4	13.9	5.0	5.0	13.6	5.0	7.6	10.8	6.7	10.1
Prop In Lane	1.00		1.00	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	507	2218	989	788	1109	1101	515	1043	465	325	1043	819
V/C Ratio(X)	0.41	0.30	0.20	0.14	0.30	0.30	0.23	0.19	0.28	0.19	0.25	0.36
Avail Cap(c_a), veh/h	507	2218	989	788	1109	1101	515	1043	465	325	1043	819
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.1	10.2	9.4	6.4	4.0	4.0	37.3	31.5	32.4	35.5	32.1	33.3
Incr Delay (d2), s/veh	2.5	0.3	0.5	0.4	0.7	0.7	1.0	0.4	1.5	1.3	0.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	4.0	2.3	0.4	1.7	1.7	1.4	2.1	3.0	1.6	2.9	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.6	10.5	9.9	6.8	4.7	4.8	38.3	31.9	33.9	36.9	32.7	34.5
LnGrp LOS	B	B	A	A	A	A	D	C	C	D	C	C
Approach Vol, veh/h		1074			785			443			616	
Approach Delay, s/veh		11.6			5.0			34.2			34.0	
Approach LOS		B			A			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	40.0	80.0	40.0	80.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	35.5	75.5	35.5	75.5
Max Q Clear Time (g_c+I1), s	15.6	25.8	12.8	15.9
Green Ext Time (p_c), s	2.2	8.7	3.1	6.6

Intersection Summary	
HCM 6th Ctrl Delay	18.0
HCM 6th LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	725	0	0	558	156	53
Future Volume (veh/h)	725	0	0	558	156	53
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	0	0	1856	1856	1856
Adj Flow Rate, veh/h	788	0	0	607	170	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	0	3	3	3
Cap, veh/h	1719	0	0	1719	773	688
Arrive On Green	0.98	0.00	0.00	0.49	0.44	0.44
Sat Flow, veh/h	3711	0	0	3711	1767	1572
Grp Volume(v), veh/h	788	0	0	607	170	58
Grp Sat Flow(s),veh/h/ln	1763	0	0	1763	1767	1572
Q Serve(g_s), s	1.2	0.0	0.0	12.8	7.2	2.6
Cycle Q Clear(g_c), s	1.2	0.0	0.0	12.8	7.2	2.6
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	1719	0	0	1719	773	688
V/C Ratio(X)	0.46	0.00	0.00	0.35	0.22	0.08
Avail Cap(c_a), veh/h	1719	0	0	1719	773	688
HCM Platoon Ratio	2.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.8	0.0	0.0	19.0	21.0	19.7
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.6	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	5.3	3.1	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.7	0.0	0.0	19.6	21.7	20.0
LnGrp LOS	A	A	A	B	C	B
Approach Vol, veh/h	788			607	228	
Approach Delay, s/veh	1.7			19.6	21.2	
Approach LOS	A			B	C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	57.0	63.0	63.0
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	52.5	58.5	58.5
Max Q Clear Time (g_c+I1), s	9.2	3.2	14.8
Green Ext Time (p_c), s	0.7	6.8	4.8

Intersection Summary	
HCM 6th Ctrl Delay	11.1
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	185	42	77	158	21	44	35	65	26	31	10
Future Vol, veh/h	7	185	42	77	158	21	44	35	65	26	31	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	8	201	46	84	172	23	48	38	71	28	34	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	10.4	11	9.9	9.6
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	31%	3%	30%	46%	0%
Vol Thru, %	24%	79%	62%	54%	0%
Vol Right, %	45%	18%	8%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	144	234	256	57	10
LT Vol	44	7	77	26	0
Through Vol	35	185	158	31	0
RT Vol	65	42	21	0	10
Lane Flow Rate	157	254	278	62	11
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.231	0.34	0.378	0.109	0.016
Departure Headway (Hd)	5.323	4.812	4.888	6.356	5.414
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	679	738	726	567	665
Service Time	3.323	2.902	2.977	4.06	3.118
HCM Lane V/C Ratio	0.231	0.344	0.383	0.109	0.017
HCM Control Delay	9.9	10.4	11	9.8	8.2
HCM Lane LOS	A	B	B	A	A
HCM 95th-tile Q	0.9	1.5	1.8	0.4	0

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	12	5	24	3	122	7	567	40	79	420	8
Future Vol, veh/h	8	12	5	24	3	122	7	567	40	79	420	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	-	125	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	9	13	5	26	3	133	8	616	43	86	457	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	960	1309	233	1061	1292	330	466	0	0	659	0	0
Stage 1	634	634	-	654	654	-	-	-	-	-	-	-
Stage 2	326	675	-	407	638	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	210	157	766	177	160	663	1085	-	-	918	-	-
Stage 1	431	469	-	420	459	-	-	-	-	-	-	-
Stage 2	658	449	-	589	467	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	152	141	766	151	144	663	1085	-	-	918	-	-
Mov Cap-2 Maneuver	152	141	-	151	144	-	-	-	-	-	-	-
Stage 1	428	425	-	417	456	-	-	-	-	-	-	-
Stage 2	519	446	-	514	423	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	29.3	19.4	0.1	1.5
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1085	-	-	145	766	410	918	-	-
HCM Lane V/C Ratio	0.007	-	-	0.15	0.007	0.395	0.094	-	-
HCM Control Delay (s)	8.3	-	-	34.2	9.7	19.4	9.3	-	-
HCM Lane LOS	A	-	-	D	A	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0	1.8	0.3	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	116	150	21	35	30
Future Vol, veh/h	19	116	150	21	35	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	21	126	163	23	38	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	186	0	-	0	343	175
Stage 1	-	-	-	-	175	-
Stage 2	-	-	-	-	168	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1382	-	-	-	651	866
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	859	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1382	-	-	-	641	866
Mov Cap-2 Maneuver	-	-	-	-	641	-
Stage 1	-	-	-	-	839	-
Stage 2	-	-	-	-	859	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1382	-	-	-	728
HCM Lane V/C Ratio	0.015	-	-	-	0.097
HCM Control Delay (s)	7.6	0	-	-	10.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

HCM 6th Signalized Intersection Summary
3: Highland Avenue & Nebraska Avenue

12/16/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	67	1	34	75	82	23	456	24	44	351	36
Future Volume (veh/h)	78	67	1	34	75	82	23	456	24	44	351	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	85	73	1	37	82	89	25	496	26	48	382	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	266	167	2	137	137	129	53	1515	79	90	1504	153
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.03	0.44	0.44	0.05	0.47	0.47
Sat Flow, veh/h	739	929	11	194	763	716	1767	3408	178	1767	3231	328
Grp Volume(v), veh/h	159	0	0	208	0	0	25	256	266	48	207	214
Grp Sat Flow(s),veh/h/ln	1679	0	0	1673	0	0	1767	1763	1823	1767	1763	1796
Q Serve(g_s), s	0.0	0.0	0.0	1.5	0.0	0.0	0.6	3.9	3.9	1.1	3.0	3.0
Cycle Q Clear(g_c), s	3.3	0.0	0.0	4.7	0.0	0.0	0.6	3.9	3.9	1.1	3.0	3.0
Prop In Lane	0.53		0.01	0.18		0.43	1.00		0.10	1.00		0.18
Lane Grp Cap(c), veh/h	435	0	0	403	0	0	53	784	811	90	821	836
V/C Ratio(X)	0.37	0.00	0.00	0.52	0.00	0.00	0.47	0.33	0.33	0.53	0.25	0.26
Avail Cap(c_a), veh/h	798	0	0	810	0	0	212	784	811	212	821	836
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.3	0.0	0.0	15.9	0.0	0.0	19.9	7.5	7.5	19.3	6.7	6.7
Incr Delay (d2), s/veh	0.5	0.0	0.0	1.0	0.0	0.0	6.3	1.1	1.1	4.8	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	1.7	0.0	0.0	0.3	1.3	1.3	0.5	0.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.8	0.0	0.0	16.9	0.0	0.0	26.1	8.6	8.6	24.0	7.5	7.5
LnGrp LOS	B	A	A	B	A	A	C	A	A	C	A	A
Approach Vol, veh/h		159			208			547			469	
Approach Delay, s/veh		15.8			16.9			9.4			9.2	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.6	23.0		12.0	5.8	23.9		12.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.0	18.5		18.0	5.0	18.5		18.0
Max Q Clear Time (g_c+I1), s	3.1	5.9		5.3	2.6	5.0		6.7
Green Ext Time (p_c), s	0.0	2.5		0.6	0.0	2.1		0.9

Intersection Summary	
HCM 6th Ctrl Delay	11.2
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	130	5	17	118	52	13	20	29	66	21	29
Future Vol, veh/h	16	130	5	17	118	52	13	20	29	66	21	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	17	141	5	18	128	57	14	22	32	72	23	32
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	9.1	8.9	8.3	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	21%	11%	13%	0%	57%
Vol Thru, %	32%	86%	87%	0%	18%
Vol Right, %	47%	3%	0%	100%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	62	151	135	52	116
LT Vol	13	16	17	0	66
Through Vol	20	130	118	0	21
RT Vol	29	5	0	52	29
Lane Flow Rate	67	164	147	57	126
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.089	0.217	0.213	0.07	0.171
Departure Headway (Hd)	4.754	4.768	5.233	4.465	4.873
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	751	750	685	800	734
Service Time	2.802	2.811	2.975	2.207	2.915
HCM Lane V/C Ratio	0.089	0.219	0.215	0.071	0.172
HCM Control Delay	8.3	9.1	9.4	7.5	8.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.3	0.8	0.8	0.2	0.6

Intersection	
Int Delay, s/veh	5.2

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	144	0	37	0	0	0	0	427	43	96	314	0
Future Vol, veh/h	144	0	37	0	0	0	0	427	43	96	314	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	22355	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	157	0	40	0	0	0	0	464	47	104	341	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	781	1060	171	-	0	0	511	0	0
Stage 1	549	549	-	-	-	-	-	-	-
Stage 2	232	511	-	-	-	-	-	-	-
Critical Hdwy	6.86	6.56	6.96	-	-	-	4.16	-	-
Critical Hdwy Stg 1	5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	330	221	840	0	-	-	1043	-	0
Stage 1	540	512	-	0	-	-	-	-	0
Stage 2	782	533	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	297	0	840	-	-	-	1043	-	-
Mov Cap-2 Maneuver	297	0	-	-	-	-	-	-	-
Stage 1	540	0	-	-	-	-	-	-	-
Stage 2	704	0	-	-	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	25.7	0	2.1
HCM LOS	D		

Minor Lane/Major Mvmt	NET	NER	SELn1	SELn2	SWL	SWT
Capacity (veh/h)	-	-	297	840	1043	-
HCM Lane V/C Ratio	-	-	0.527	0.048	0.1	-
HCM Control Delay (s)	-	-	29.9	9.5	8.8	-
HCM Lane LOS	-	-	D	A	A	-
HCM 95th %tile Q(veh)	-	-	2.9	0.2	0.3	-

Intersection	
Int Delay, s/veh	2.4

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	31	0	113	88	485	0	0	379	148
Future Vol, veh/h	0	0	0	31	0	113	88	485	0	0	379	148
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	34	0	123	96	527	0	0	412	161

Major/Minor	Minor1		Major1			Major2			
Conflicting Flow All	925	1292	264	573	0	-	-	-	0
Stage 1	719	719	-	-	-	-	-	-	-
Stage 2	206	573	-	-	-	-	-	-	-
Critical Hdwy	6.86	6.56	6.96	4.16	-	-	-	-	-
Critical Hdwy Stg 1	5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	2.23	-	-	-	-	-
Pot Cap-1 Maneuver	266	160	731	989	-	0	0	-	-
Stage 1	441	428	-	-	-	0	0	-	-
Stage 2	805	499	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	230	0	731	989	-	-	-	-	-
Mov Cap-2 Maneuver	230	0	-	-	-	-	-	-	-
Stage 1	381	0	-	-	-	-	-	-	-
Stage 2	805	0	-	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	13.6	1.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	NWLn1	NWLn2	SWT	SWR
Capacity (veh/h)	989	-	230	731	-	-
HCM Lane V/C Ratio	0.097	-	0.147	0.168	-	-
HCM Control Delay (s)	9	0.5	23.3	10.9	-	-
HCM Lane LOS	A	A	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.5	0.6	-	-

HCM 6th Signalized Intersection Summary
7: Floral Ave & SR 99 SB OFF RAMP

12/16/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	306	51	58	402	0	0	0	73	183	32	82
Future Volume (veh/h)	0	306	51	58	402	0	0	0	73	183	32	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1856	1856	1856	1856	0	0	0	1856	1856	1856	1856
Adj Flow Rate, veh/h	0	333	55	63	437	0	0	0	79	199	35	89
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	3	3	3	3	0	0	0	3	3	3	3
Cap, veh/h	0	624	278	109	1220	0	0	0	0	1509	816	692
Arrive On Green	0.00	0.18	0.18	0.06	0.35	0.00	0.00	0.00	0.00	0.44	0.44	0.44
Sat Flow, veh/h	0	3618	1572	1767	3618	0		0		3428	1856	1572
Grp Volume(v), veh/h	0	333	55	63	437	0		0.0		199	35	89
Grp Sat Flow(s),veh/h/ln	0	1763	1572	1767	1763	0				1714	1856	1572
Q Serve(g_s), s	0.0	3.6	1.3	1.5	3.9	0.0				1.5	0.5	1.4
Cycle Q Clear(g_c), s	0.0	3.6	1.3	1.5	3.9	0.0				1.5	0.5	1.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	624	278	109	1220	0				1509	816	692
V/C Ratio(X)	0.00	0.53	0.20	0.58	0.36	0.00				0.13	0.04	0.13
Avail Cap(c_a), veh/h	0	1509	673	231	2348	0				1509	816	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	15.7	14.8	19.2	10.3	0.0				7.0	6.7	7.0
Incr Delay (d2), s/veh	0.0	0.7	0.3	4.7	0.2	0.0				0.2	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.3	0.4	0.7	1.2	0.0				0.4	0.2	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.4	15.1	23.9	10.4	0.0				7.2	6.8	7.4
LnGrp LOS	A	B	B	C	B	A				A	A	A
Approach Vol, veh/h		388			500						323	
Approach Delay, s/veh		16.2			12.1						7.2	
Approach LOS		B			B						A	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		7.1	11.9		23.0		19.0					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		5.5	18.0		18.5		28.0					
Max Q Clear Time (g_c+I1), s		3.5	5.6		3.5		5.9					
Green Ext Time (p_c), s		0.0	1.8		1.0		2.9					

Intersection Summary	
HCM 6th Ctrl Delay	12.1
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	0	565	458	254	0	0
Future Vol, veh/h	0	565	458	254	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	614	498	276	0	0
Number of Lanes	0	2	2	0	0	0

Approach	EB	WB
Opposing Approach	WB	EB
Opposing Lanes	2	2
Conflicting Approach Left		
Conflicting Lanes Left	0	0
Conflicting Approach Right		
Conflicting Lanes Right	0	0
HCM Control Delay	5	5
HCM LOS	A	A

Lane	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	38%
Vol Right, %	0%	0%	0%	62%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	283	283	305	407
LT Vol	0	0	0	0
Through Vol	283	283	305	153
RT Vol	0	0	0	254
Lane Flow Rate	307	307	332	442
Geometry Grp	0	0	0	0
Degree of Util (X)	0	0	0	0
Departure Headway (Hd)	0	0	0	0
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	0	0	0
Service Time	0	0	0	0
HCM Lane V/C Ratio	0	0	0	0
HCM Control Delay	5	5	5	5
HCM Lane LOS	N	N	N	N
HCM 95th-tile Q	0	0	0	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	360	79	94	449	81	84	108	63	19	193	176
Future Volume (veh/h)	13	360	79	94	449	81	84	108	63	19	193	176
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	14	391	86	102	488	88	91	117	68	21	210	191
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	554	2218	989	1149	1879	337	596	1043	465	383	1043	819
Arrive On Green	0.63	0.63	0.63	0.84	0.84	0.84	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	831	3526	1572	1766	2986	536	1893	3526	1572	1189	3526	2768
Grp Volume(v), veh/h	14	391	86	102	287	289	91	117	68	21	210	191
Grp Sat Flow(s),veh/h/ln	831	1763	1572	883	1763	1759	947	1763	1572	1189	1763	1384
Q Serve(g_s), s	0.8	5.6	2.6	1.7	4.1	4.1	4.5	2.9	3.8	1.6	5.4	6.3
Cycle Q Clear(g_c), s	4.9	5.6	2.6	7.2	4.1	4.1	9.9	2.9	3.8	4.5	5.4	6.3
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	554	2218	989	1149	1109	1107	596	1043	465	383	1043	819
V/C Ratio(X)	0.03	0.18	0.09	0.09	0.26	0.26	0.15	0.11	0.15	0.05	0.20	0.23
Avail Cap(c_a), veh/h	554	2218	989	1149	1109	1107	596	1043	465	383	1043	819
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.0	9.3	8.7	4.9	4.0	4.0	35.3	30.8	31.1	32.4	31.6	32.0
Incr Delay (d2), s/veh	0.1	0.2	0.2	0.2	0.6	0.6	0.5	0.2	0.7	0.3	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.1	0.9	0.3	1.5	1.5	1.1	1.2	1.5	0.5	2.3	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.1	9.5	8.9	5.1	4.5	4.5	35.9	31.0	31.8	32.7	32.1	32.6
LnGrp LOS	B	A	A	A	A	A	D	C	C	C	C	C
Approach Vol, veh/h		491			678			276			422	
Approach Delay, s/veh		9.4			4.6			32.8			32.4	
Approach LOS		A			A			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	40.0	80.0	40.0	80.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	35.5	75.5	35.5	75.5
Max Q Clear Time (g_c+I1), s	11.9	7.6	8.3	9.2
Green Ext Time (p_c), s	1.3	3.3	2.2	4.9

Intersection Summary	
HCM 6th Ctrl Delay	16.3
HCM 6th LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	373	0	0	467	172	44
Future Volume (veh/h)	373	0	0	467	172	44
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	0	0	1856	1856	1856
Adj Flow Rate, veh/h	405	0	0	508	187	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	0	3	3	3
Cap, veh/h	1719	0	0	1719	773	688
Arrive On Green	0.98	0.00	0.00	0.49	0.44	0.44
Sat Flow, veh/h	3711	0	0	3711	1767	1572
Grp Volume(v), veh/h	405	0	0	508	187	48
Grp Sat Flow(s),veh/h/ln	1763	0	0	1763	1767	1572
Q Serve(g_s), s	0.4	0.0	0.0	10.4	8.0	2.1
Cycle Q Clear(g_c), s	0.4	0.0	0.0	10.4	8.0	2.1
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	1719	0	0	1719	773	688
V/C Ratio(X)	0.24	0.00	0.00	0.30	0.24	0.07
Avail Cap(c_a), veh/h	1719	0	0	1719	773	688
HCM Platoon Ratio	2.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.8	0.0	0.0	18.4	21.2	19.6
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.4	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	4.3	3.5	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.1	0.0	0.0	18.9	22.0	19.8
LnGrp LOS	A	A	A	B	C	B
Approach Vol, veh/h	405			508	235	
Approach Delay, s/veh	1.1			18.9	21.5	
Approach LOS	A			B	C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	57.0	63.0	63.0
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	52.5	58.5	58.5
Max Q Clear Time (g_c+I1), s	10.0	2.4	12.4
Green Ext Time (p_c), s	0.7	3.0	3.9

Intersection Summary	
HCM 6th Ctrl Delay	13.1
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	13.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	200	28	144	169	22	46	66	67	61	60	14
Future Vol, veh/h	8	200	28	144	169	22	46	66	67	61	60	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	9	217	30	157	184	24	50	72	73	66	65	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	12.3	15.3	11.8	11.7
HCM LOS	B	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	26%	3%	43%	50%	0%
Vol Thru, %	37%	85%	50%	50%	0%
Vol Right, %	37%	12%	7%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	179	236	335	121	14
LT Vol	46	8	144	61	0
Through Vol	66	200	169	60	0
RT Vol	67	28	22	0	14
Lane Flow Rate	195	257	364	132	15
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.32	0.397	0.556	0.251	0.025
Departure Headway (Hd)	5.927	5.568	5.498	6.87	5.899
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	603	644	655	521	603
Service Time	3.998	3.63	3.554	4.643	3.671
HCM Lane V/C Ratio	0.323	0.399	0.556	0.253	0.025
HCM Control Delay	11.8	12.3	15.3	12	8.8
HCM Lane LOS	B	B	C	B	A
HCM 95th-tile Q	1.4	1.9	3.4	1	0.1

Intersection	
Int Delay, s/veh	8.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	7	8	24	7	127	8	609	43	200	687	11
Future Vol, veh/h	6	7	8	24	7	127	8	609	43	200	687	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	-	125	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	8	9	26	8	138	9	662	47	217	747	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1540	1914	380	1516	1897	355	759	0	0	709	0	0
Stage 1	1187	1187	-	704	704	-	-	-	-	-	-	-
Stage 2	353	727	-	812	1193	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	78	66	615	81	68	638	842	-	-	879	-	-
Stage 1	198	258	-	391	435	-	-	-	-	-	-	-
Stage 2	634	425	-	337	256	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	44	49	615	57	51	638	842	-	-	879	-	-
Mov Cap-2 Maneuver	44	49	-	57	51	-	-	-	-	-	-	-
Stage 1	196	194	-	387	430	-	-	-	-	-	-	-
Stage 2	483	420	-	240	193	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	73.3	71.4	0.1	2.3
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	842	-	-	47	615	209	879	-	-
HCM Lane V/C Ratio	0.01	-	-	0.301	0.014	0.822	0.247	-	-
HCM Control Delay (s)	9.3	-	-	111.7	10.9	71.4	10.4	-	-
HCM Lane LOS	A	-	-	F	B	F	B	-	-
HCM 95th %tile Q(veh)	0	-	-	1	0	6	1	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	51	245	196	56	46	42
Future Vol, veh/h	51	245	196	56	46	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	55	266	213	61	50	46

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	274	0	-	0	620	244
Stage 1	-	-	-	-	244	-
Stage 2	-	-	-	-	376	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1283	-	-	-	450	792
Stage 1	-	-	-	-	794	-
Stage 2	-	-	-	-	692	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1283	-	-	-	428	792
Mov Cap-2 Maneuver	-	-	-	-	428	-
Stage 1	-	-	-	-	754	-
Stage 2	-	-	-	-	692	-

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	13
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1283	-	-	-	548
HCM Lane V/C Ratio	0.043	-	-	-	0.175
HCM Control Delay (s)	7.9	0	-	-	13
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

HCM 6th Signalized Intersection Summary
3: Highland Avenue & Nebraska Avenue

12/16/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	85	17	47	80	107	16	471	46	131	510	79
Future Volume (veh/h)	88	85	17	47	80	107	16	471	46	131	510	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	96	92	18	51	87	116	17	512	50	142	554	86
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	238	172	28	141	138	155	38	1305	127	180	1478	229
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.02	0.40	0.40	0.10	0.48	0.48
Sat Flow, veh/h	610	853	140	234	681	769	1767	3245	316	1767	3060	473
Grp Volume(v), veh/h	206	0	0	254	0	0	17	277	285	142	318	322
Grp Sat Flow(s),veh/h/ln	1604	0	0	1684	0	0	1767	1763	1799	1767	1763	1770
Q Serve(g_s), s	0.0	0.0	0.0	1.2	0.0	0.0	0.4	5.1	5.2	3.6	5.2	5.3
Cycle Q Clear(g_c), s	5.1	0.0	0.0	6.3	0.0	0.0	0.4	5.1	5.2	3.6	5.2	5.3
Prop In Lane	0.47		0.09	0.20		0.46	1.00		0.18	1.00		0.27
Lane Grp Cap(c), veh/h	439	0	0	434	0	0	38	709	724	180	852	855
V/C Ratio(X)	0.47	0.00	0.00	0.58	0.00	0.00	0.45	0.39	0.39	0.79	0.37	0.38
Avail Cap(c_a), veh/h	711	0	0	733	0	0	192	709	724	192	852	855
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.6	0.0	0.0	17.1	0.0	0.0	22.2	9.8	9.8	20.2	7.5	7.5
Incr Delay (d2), s/veh	0.8	0.0	0.0	1.3	0.0	0.0	8.3	1.6	1.6	18.3	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.0	2.3	0.0	0.0	0.3	1.9	1.9	2.2	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.4	0.0	0.0	18.4	0.0	0.0	30.6	11.4	11.4	38.5	8.8	8.8
LnGrp LOS	B	A	A	B	A	A	C	B	B	D	A	A
Approach Vol, veh/h		206			254			579			782	
Approach Delay, s/veh		17.4			18.4			11.9			14.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.2	23.0		13.8	5.5	26.7		13.8
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.0	18.5		18.0	5.0	18.5		18.0
Max Q Clear Time (g_c+I1), s	5.6	7.2		7.1	2.4	7.3		8.3
Green Ext Time (p_c), s	0.0	2.6		0.8	0.0	3.0		1.0

Intersection Summary		
HCM 6th Ctrl Delay		14.4
HCM 6th LOS		B

Intersection	
Intersection Delay, s/veh	11
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	257	35	20	217	33	14	13	26	39	18	25
Future Vol, veh/h	32	257	35	20	217	33	14	13	26	39	18	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	35	279	38	22	236	36	15	14	28	42	20	27
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	11.9	10.8	9	9.4
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	26%	10%	8%	0%	48%
Vol Thru, %	25%	79%	92%	0%	22%
Vol Right, %	49%	11%	0%	100%	30%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	53	324	237	33	82
LT Vol	14	32	20	0	39
Through Vol	13	257	217	0	18
RT Vol	26	35	0	33	25
Lane Flow Rate	58	352	258	36	89
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.086	0.465	0.378	0.045	0.135
Departure Headway (Hd)	5.367	4.754	5.285	4.537	5.461
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	660	754	678	783	651
Service Time	3.461	2.812	3.048	2.3	3.548
HCM Lane V/C Ratio	0.088	0.467	0.381	0.046	0.137
HCM Control Delay	9	11.9	11.3	7.5	9.4
HCM Lane LOS	A	B	B	A	A
HCM 95th-tile Q	0.3	2.5	1.8	0.1	0.5

Intersection	
Int Delay, s/veh	10.3

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	161	0	108	0	0	0	0	450	51	121	435	0
Future Vol, veh/h	161	0	108	0	0	0	0	450	51	121	435	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	22355	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	175	0	117	0	0	0	0	489	55	132	473	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	982	1281	237	-	0	0	544	0	0
Stage 1	737	737	-	-	-	-	-	-	-
Stage 2	245	544	-	-	-	-	-	-	-
Critical Hdwy	6.86	6.56	6.96	-	-	-	4.16	-	-
Critical Hdwy Stg 1	5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	245	163	761	0	-	-	1014	-	0
Stage 1	432	420	-	0	-	-	-	-	0
Stage 2	770	515	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	213	0	761	-	-	-	1014	-	-
Mov Cap-2 Maneuver	213	0	-	-	-	-	-	-	-
Stage 1	432	0	-	-	-	-	-	-	-
Stage 2	670	0	-	-	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	46.4	0	2
HCM LOS	E		

Minor Lane/Major Mvmt	NET	NER	SELn1	SELn2	SWL	SWT
Capacity (veh/h)	-	-	213	761	1014	-
HCM Lane V/C Ratio	-	-	0.822	0.154	0.13	-
HCM Control Delay (s)	-	-	70.4	10.6	9.1	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	6.1	0.5	0.4	-

Intersection	
Int Delay, s/veh	2.7

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	47	1	132	78	532	0	0	511	183
Future Vol, veh/h	0	0	0	47	1	132	78	532	0	0	511	183
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	51	1	143	85	578	0	0	555	199

Major/Minor	Minor1		Major1			Major2			
Conflicting Flow All	1026	1502	289	754	0	-	-	-	0
Stage 1	748	748	-	-	-	-	-	-	-
Stage 2	278	754	-	-	-	-	-	-	-
Critical Hdwy	6.86	6.56	6.96	4.16	-	-	-	-	-
Critical Hdwy Stg 1	5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	2.23	-	-	-	-	-
Pot Cap-1 Maneuver	229	120	705	845	-	0	0	-	-
Stage 1	426	415	-	-	-	0	0	-	-
Stage 2	741	413	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	195	0	705	845	-	-	-	-	-
Mov Cap-2 Maneuver	195	0	-	-	-	-	-	-	-
Stage 1	363	0	-	-	-	-	-	-	-
Stage 2	741	0	-	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	16.4	1.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	NWLn1	NWLn2	SWT	SWR
Capacity (veh/h)	845	-	195	705	-	-
HCM Lane V/C Ratio	0.1	-	0.268	0.204	-	-
HCM Control Delay (s)	9.7	0.6	30.1	11.4	-	-
HCM Lane LOS	A	A	D	B	-	-
HCM 95th %tile Q(veh)	0.3	-	1	0.8	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	562	99	101	593	0	0	0	128	275	50	130
Future Volume (veh/h)	0	562	99	101	593	0	0	0	128	275	50	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1856	1856	1856	1856	0	0	0	1856	1856	1856	1856
Adj Flow Rate, veh/h	0	611	108	110	645	0	0	0	139	299	54	141
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	3	3	3	3	0	0	0	3	3	3	3
Cap, veh/h	0	907	405	141	1517	0	0	0	0	1314	711	603
Arrive On Green	0.00	0.26	0.26	0.08	0.43	0.00	0.00	0.00	0.00	0.38	0.38	0.38
Sat Flow, veh/h	0	3618	1572	1767	3618	0		0		3428	1856	1572
Grp Volume(v), veh/h	0	611	108	110	645	0		0.0		299	54	141
Grp Sat Flow(s),veh/h/ln	0	1763	1572	1767	1763	0				1714	1856	1572
Q Serve(g_s), s	0.0	7.5	2.6	2.9	6.2	0.0				2.8	0.9	2.9
Cycle Q Clear(g_c), s	0.0	7.5	2.6	2.9	6.2	0.0				2.8	0.9	2.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	907	405	141	1517	0				1314	711	603
V/C Ratio(X)	0.00	0.67	0.27	0.78	0.43	0.00				0.23	0.08	0.23
Avail Cap(c_a), veh/h	0	1315	586	201	2045	0				1314	711	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	16.1	14.3	21.8	9.6	0.0				10.1	9.5	10.1
Incr Delay (d2), s/veh	0.0	0.9	0.3	11.6	0.2	0.0				0.4	0.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.7	0.9	1.6	1.9	0.0				1.0	0.3	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.0	14.6	33.4	9.8	0.0				10.5	9.7	11.0
LnGrp LOS	A	B	B	C	A	A				B	A	B
Approach Vol, veh/h		719			755						494	
Approach Delay, s/veh		16.6			13.2						10.5	
Approach LOS		B			B						B	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		8.4	16.9		23.0		25.3					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		5.5	18.0		18.5		28.0					
Max Q Clear Time (g_c+I1), s		4.9	9.5		4.9		8.2					
Green Ext Time (p_c), s		0.0	2.9		1.6		4.4					

Intersection Summary	
HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	0	1028	641	241	0	0
Future Vol, veh/h	0	1028	641	241	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	1117	697	262	0	0
Number of Lanes	0	2	2	0	0	0

Approach	EB	WB
Opposing Approach	WB	EB
Opposing Lanes	2	2
Conflicting Approach Left		
Conflicting Lanes Left	0	0
Conflicting Approach Right		
Conflicting Lanes Right	0	0
HCM Control Delay	5	5
HCM LOS	A	A

Lane	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	47%
Vol Right, %	0%	0%	0%	53%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	514	514	427	455
LT Vol	0	0	0	0
Through Vol	514	514	427	214
RT Vol	0	0	0	241
Lane Flow Rate	559	559	464	494
Geometry Grp	0	0	0	0
Degree of Util (X)	0	0	0	0
Departure Headway (Hd)	0	0	0	0
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	0	0	0
Service Time	0	0	0	0
HCM Lane V/C Ratio	0	0	0	0
HCM Control Delay	5	5	5	5
HCM Lane LOS	N	N	N	N
HCM 95th-tile Q	0	0	0	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	192	613	199	110	514	103	118	189	123	58	245	271
Future Volume (veh/h)	192	613	199	110	514	103	118	189	123	58	245	271
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	209	666	216	120	559	112	128	205	134	63	266	295
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	507	2218	989	778	1842	368	509	1043	465	321	1043	819
Arrive On Green	0.63	0.63	0.63	0.84	0.84	0.84	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	760	3526	1572	1211	2928	585	1634	3526	1572	1033	3526	2768
Grp Volume(v), veh/h	209	666	216	120	336	335	128	205	134	63	266	295
Grp Sat Flow(s),veh/h/ln	760	1763	1572	606	1763	1750	817	1763	1572	1033	1763	1384
Q Serve(g_s), s	18.8	10.4	7.1	3.8	5.0	5.0	7.8	5.2	7.9	5.8	6.9	10.1
Cycle Q Clear(g_c), s	23.8	10.4	7.1	14.2	5.0	5.0	14.7	5.2	7.9	11.0	6.9	10.1
Prop In Lane	1.00		1.00	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	507	2218	989	778	1109	1101	509	1043	465	321	1043	819
V/C Ratio(X)	0.41	0.30	0.22	0.15	0.30	0.30	0.25	0.20	0.29	0.20	0.26	0.36
Avail Cap(c_a), veh/h	507	2218	989	778	1109	1101	509	1043	465	321	1043	819
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.1	10.2	9.6	6.4	4.0	4.0	37.8	31.6	32.5	35.7	32.2	33.3
Incr Delay (d2), s/veh	2.5	0.3	0.5	0.4	0.7	0.7	1.2	0.4	1.6	1.4	0.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	4.0	2.5	0.4	1.7	1.7	1.6	2.2	3.1	1.6	3.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.6	10.5	10.1	6.9	4.7	4.8	38.9	32.0	34.1	37.1	32.8	34.5
LnGrp LOS	B	B	B	A	A	A	D	C	C	D	C	C
Approach Vol, veh/h		1091			791			467			624	
Approach Delay, s/veh		11.6			5.1			34.5			34.0	
Approach LOS		B			A			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	40.0	80.0	40.0	80.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	35.5	75.5	35.5	75.5
Max Q Clear Time (g_c+I1), s	16.7	25.8	13.0	16.2
Green Ext Time (p_c), s	2.3	8.8	3.1	6.8

Intersection Summary	
HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	728	0	0	563	156	53
Future Volume (veh/h)	728	0	0	563	156	53
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	0	0	1856	1856	1856
Adj Flow Rate, veh/h	791	0	0	612	170	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	0	3	3	3
Cap, veh/h	1719	0	0	1719	773	688
Arrive On Green	0.98	0.00	0.00	0.49	0.44	0.44
Sat Flow, veh/h	3711	0	0	3711	1767	1572
Grp Volume(v), veh/h	791	0	0	612	170	58
Grp Sat Flow(s),veh/h/ln	1763	0	0	1763	1767	1572
Q Serve(g_s), s	1.2	0.0	0.0	12.9	7.2	2.6
Cycle Q Clear(g_c), s	1.2	0.0	0.0	12.9	7.2	2.6
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	1719	0	0	1719	773	688
V/C Ratio(X)	0.46	0.00	0.00	0.36	0.22	0.08
Avail Cap(c_a), veh/h	1719	0	0	1719	773	688
HCM Platoon Ratio	2.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.8	0.0	0.0	19.1	21.0	19.7
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.6	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	5.4	3.1	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.7	0.0	0.0	19.6	21.7	20.0
LnGrp LOS	A	A	A	B	C	B
Approach Vol, veh/h	791			612	228	
Approach Delay, s/veh	1.7			19.6	21.2	
Approach LOS	A			B	C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	57.0	63.0	63.0
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	52.5	58.5	58.5
Max Q Clear Time (g_c+I1), s	9.2	3.2	14.9
Green Ext Time (p_c), s	0.7	6.8	4.8

Intersection Summary	
HCM 6th Ctrl Delay	11.2
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	11.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	225	45	77	208	21	47	35	65	26	31	10
Future Vol, veh/h	10	225	45	77	208	21	47	35	65	26	31	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	11	245	49	84	226	23	51	38	71	28	34	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	11.8	12.6	10.5	10
HCM LOS	B	B	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	32%	4%	25%	46%	0%
Vol Thru, %	24%	80%	68%	54%	0%
Vol Right, %	44%	16%	7%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	147	280	306	57	10
LT Vol	47	10	77	26	0
Through Vol	35	225	208	31	0
RT Vol	65	45	21	0	10
Lane Flow Rate	160	304	333	62	11
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.25	0.426	0.47	0.115	0.017
Departure Headway (Hd)	5.623	5.034	5.089	6.676	5.731
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	638	715	708	537	624
Service Time	3.661	3.063	3.117	4.419	3.474
HCM Lane V/C Ratio	0.251	0.425	0.47	0.115	0.018
HCM Control Delay	10.5	11.8	12.6	10.3	8.6
HCM Lane LOS	B	B	B	B	A
HCM 95th-tile Q	1	2.1	2.5	0.4	0.1

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	12	5	29	3	124	7	662	52	81	458	8
Future Vol, veh/h	8	12	5	29	3	124	7	662	52	81	458	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	-	125	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	9	13	5	32	3	135	8	720	57	88	498	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1057	1472	254	1197	1448	389	507	0	0	777	0	0
Stage 1	679	679	-	765	765	-	-	-	-	-	-	-
Stage 2	378	793	-	432	683	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	178	125	742	140	129	607	1047	-	-	829	-	-
Stage 1	405	447	-	360	408	-	-	-	-	-	-	-
Stage 2	613	396	-	569	445	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	124	111	742	116	114	607	1047	-	-	829	-	-
Mov Cap-2 Maneuver	124	111	-	116	114	-	-	-	-	-	-	-
Stage 1	402	400	-	357	405	-	-	-	-	-	-	-
Stage 2	469	393	-	488	398	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	36.5	27.5	0.1	1.5
HCM LOS	E	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1047	-	-	116	742	325	829	-	-
HCM Lane V/C Ratio	0.007	-	-	0.187	0.007	0.522	0.106	-	-
HCM Control Delay (s)	8.5	-	-	43.1	9.9	27.5	9.9	-	-
HCM Lane LOS	A	-	-	E	A	D	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.7	0	2.9	0.4	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	183	230	21	35	30
Future Vol, veh/h	19	183	230	21	35	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	21	199	250	23	38	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	273	0	-	0	503	262
Stage 1	-	-	-	-	262	-
Stage 2	-	-	-	-	241	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1284	-	-	-	526	774
Stage 1	-	-	-	-	780	-
Stage 2	-	-	-	-	797	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1284	-	-	-	517	774
Mov Cap-2 Maneuver	-	-	-	-	517	-
Stage 1	-	-	-	-	766	-
Stage 2	-	-	-	-	797	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1284	-	-	-	611
HCM Lane V/C Ratio	0.016	-	-	-	0.116
HCM Control Delay (s)	7.8	0	-	-	11.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	143	18	41	103	104	29	465	27	53	358	63
Future Volume (veh/h)	155	143	18	41	103	104	29	465	27	53	358	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	168	155	20	45	112	113	32	505	29	58	389	68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	292	208	24	136	225	196	64	1314	75	99	1225	212
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.04	0.39	0.39	0.06	0.41	0.41
Sat Flow, veh/h	659	759	88	176	823	718	1767	3389	194	1767	3004	521
Grp Volume(v), veh/h	343	0	0	270	0	0	32	262	272	58	227	230
Grp Sat Flow(s),veh/h/ln	1506	0	0	1717	0	0	1767	1763	1821	1767	1763	1762
Q Serve(g_s), s	3.6	0.0	0.0	0.0	0.0	0.0	0.8	5.1	5.1	1.5	4.2	4.2
Cycle Q Clear(g_c), s	10.0	0.0	0.0	6.4	0.0	0.0	0.8	5.1	5.1	1.5	4.2	4.2
Prop In Lane	0.49		0.06	0.17		0.42	1.00		0.11	1.00		0.30
Lane Grp Cap(c), veh/h	524	0	0	557	0	0	64	683	706	99	719	718
V/C Ratio(X)	0.65	0.00	0.00	0.48	0.00	0.00	0.50	0.38	0.39	0.58	0.32	0.32
Avail Cap(c_a), veh/h	671	0	0	722	0	0	185	683	706	185	719	718
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.0	0.0	0.0	14.9	0.0	0.0	22.6	10.5	10.5	22.0	9.6	9.6
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.7	0.0	0.0	5.9	1.6	1.6	5.3	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.0	2.3	0.0	0.0	0.4	1.9	2.0	0.7	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.6	0.0	0.0	15.6	0.0	0.0	28.5	12.1	12.1	27.3	10.8	10.8
LnGrp LOS	B	A	A	B	A	A	C	B	B	C	B	B
Approach Vol, veh/h		343			270			566			515	
Approach Delay, s/veh		17.6			15.6			13.0			12.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.2	23.0		17.5	6.2	24.0		17.5
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.0	18.5		18.0	5.0	18.5		18.0
Max Q Clear Time (g_c+I1), s	3.5	7.1		12.0	2.8	6.2		8.4
Green Ext Time (p_c), s	0.0	2.5		1.1	0.0	2.2		1.1

Intersection Summary	
HCM 6th Ctrl Delay	14.2
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	231	5	17	156	53	13	4	30	67	21	30
Future Vol, veh/h	16	231	5	17	156	53	13	4	30	67	21	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	17	251	5	18	170	58	14	4	33	73	23	33
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	10.6	9.5	8.5	9.5
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	28%	6%	10%	0%	57%
Vol Thru, %	9%	92%	90%	0%	18%
Vol Right, %	64%	2%	0%	100%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	47	252	173	53	118
LT Vol	13	16	17	0	67
Through Vol	4	231	156	0	21
RT Vol	30	5	0	53	30
Lane Flow Rate	51	274	188	58	128
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.072	0.366	0.277	0.073	0.185
Departure Headway (Hd)	5.042	4.806	5.305	4.55	5.203
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	703	745	673	782	685
Service Time	3.122	2.863	3.065	2.31	3.272
HCM Lane V/C Ratio	0.073	0.368	0.279	0.074	0.187
HCM Control Delay	8.5	10.6	10.1	7.7	9.5
HCM Lane LOS	A	B	B	A	A
HCM 95th-tile Q	0.2	1.7	1.1	0.2	0.7

Intersection	
Int Delay, s/veh	5.8

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	147	0	52	0	0	0	0	503	84	98	344	0
Future Vol, veh/h	147	0	52	0	0	0	0	503	84	98	344	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	22355	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	160	0	57	0	0	0	0	547	91	107	374	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	862	1226	187	-	0	0	638	0	0
Stage 1	588	588	-	-	-	-	-	-	-
Stage 2	274	638	-	-	-	-	-	-	-
Critical Hdwy	6.86	6.56	6.96	-	-	-	4.16	-	-
Critical Hdwy Stg 1	5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	292	176	820	0	-	-	935	-	0
Stage 1	515	492	-	0	-	-	-	-	0
Stage 2	744	467	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	259	0	820	-	-	-	935	-	-
Mov Cap-2 Maneuver	259	0	-	-	-	-	-	-	-
Stage 1	515	0	-	-	-	-	-	-	-
Stage 2	659	0	-	-	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	31.3	0	2.1
HCM LOS	D		

Minor Lane/Major Mvmt	NET	NER	SELn1	SELn2	SWL	SWT
Capacity (veh/h)	-	-	259	820	935	-
HCM Lane V/C Ratio	-	-	0.617	0.069	0.114	-
HCM Control Delay (s)	-	-	39	9.7	9.3	-
HCM Lane LOS	-	-	E	A	A	-
HCM 95th %tile Q(veh)	-	-	3.7	0.2	0.4	-

Intersection	
Int Delay, s/veh	3.5

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	53	0	115	134	506	0	0	391	151
Future Vol, veh/h	0	0	0	53	0	115	134	506	0	0	391	151
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	58	0	125	146	550	0	0	425	164

Major/Minor	Minor1		Major1			Major2			
Conflicting Flow All	1055	1431	275	589	0	-	-	-	0
Stage 1	842	842	-	-	-	-	-	-	-
Stage 2	213	589	-	-	-	-	-	-	-
Critical Hdwy	6.86	6.56	6.96	4.16	-	-	-	-	-
Critical Hdwy Stg 1	5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	2.23	-	-	-	-	-
Pot Cap-1 Maneuver	219	132	719	976	-	0	0	-	-
Stage 1	380	376	-	-	-	0	0	-	-
Stage 2	799	491	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	172	0	719	976	-	-	-	-	-
Mov Cap-2 Maneuver	172	0	-	-	-	-	-	-	-
Stage 1	298	0	-	-	-	-	-	-	-
Stage 2	799	0	-	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	19	2.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	NWLn1	NWLn2	SWT	SWR
Capacity (veh/h)	976	-	172	719	-	-
HCM Lane V/C Ratio	0.149	-	0.335	0.174	-	-
HCM Control Delay (s)	9.3	0.7	36.1	11.1	-	-
HCM Lane LOS	A	A	E	B	-	-
HCM 95th %tile Q(veh)	0.5	-	1.4	0.6	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	312	52	59	410	0	0	0	74	209	33	84
Future Volume (veh/h)	0	312	52	59	410	0	0	0	74	209	33	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1856	1856	1856	1856	0	0	0	1856	1856	1856	1856
Adj Flow Rate, veh/h	0	339	57	64	446	0	0	0	80	227	36	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	3	3	3	3	0	0	0	3	3	3	3
Cap, veh/h	0	631	281	111	1227	0	0	0	0	1503	814	690
Arrive On Green	0.00	0.18	0.18	0.06	0.35	0.00	0.00	0.00	0.00	0.44	0.44	0.44
Sat Flow, veh/h	0	3618	1572	1767	3618	0		0		3428	1856	1572
Grp Volume(v), veh/h	0	339	57	64	446	0		0.0		227	36	91
Grp Sat Flow(s),veh/h/ln	0	1763	1572	1767	1763	0				1714	1856	1572
Q Serve(g_s), s	0.0	3.7	1.3	1.5	4.0	0.0				1.7	0.5	1.5
Cycle Q Clear(g_c), s	0.0	3.7	1.3	1.5	4.0	0.0				1.7	0.5	1.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	631	281	111	1227	0				1503	814	690
V/C Ratio(X)	0.00	0.54	0.20	0.58	0.36	0.00				0.15	0.04	0.13
Avail Cap(c_a), veh/h	0	1504	671	230	2340	0				1503	814	690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	15.7	14.8	19.2	10.3	0.0				7.1	6.8	7.1
Incr Delay (d2), s/veh	0.0	0.7	0.4	4.7	0.2	0.0				0.2	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.3	0.4	0.7	1.2	0.0				0.5	0.2	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.4	15.1	24.0	10.4	0.0				7.3	6.9	7.5
LnGrp LOS	A	B	B	C	B	A				A	A	A
Approach Vol, veh/h		396			510						354	
Approach Delay, s/veh		16.3			12.1						7.3	
Approach LOS		B			B						A	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		7.1	12.1		23.0		19.2					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		5.5	18.0		18.5		28.0					
Max Q Clear Time (g_c+I1), s		3.5	5.7		3.7		6.0					
Green Ext Time (p_c), s		0.0	1.9		1.1		3.0					

Intersection Summary	
HCM 6th Ctrl Delay	12.1
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	0	598	467	321	0	0
Future Vol, veh/h	0	598	467	321	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	650	508	349	0	0
Number of Lanes	0	2	2	0	0	0

Approach	EB	WB
Opposing Approach	WB	EB
Opposing Lanes	2	2
Conflicting Approach Left		
Conflicting Lanes Left	0	0
Conflicting Approach Right		
Conflicting Lanes Right	0	0
HCM Control Delay	5	5
HCM LOS	A	A

Lane	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	33%
Vol Right, %	0%	0%	0%	67%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	299	299	311	477
LT Vol	0	0	0	0
Through Vol	299	299	311	156
RT Vol	0	0	0	321
Lane Flow Rate	325	325	338	518
Geometry Grp	0	0	0	0
Degree of Util (X)	0	0	0	0
Departure Headway (Hd)	0	0	0	0
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	0	0	0
Service Time	0	0	0	0
HCM Lane V/C Ratio	0	0	0	0
HCM Control Delay	5	5	5	5
HCM Lane LOS	N	N	N	N
HCM 95th-tile Q	0	0	0	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	367	103	100	458	83	148	121	75	19	201	180
Future Volume (veh/h)	115	367	103	100	458	83	148	121	75	19	201	180
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	125	399	112	109	498	90	161	132	82	21	218	196
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	548	2218	989	1116	1878	338	587	1043	465	371	1043	819
Arrive On Green	0.63	0.63	0.63	0.84	0.84	0.84	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	821	3526	1572	1711	2985	537	1871	3526	1572	1158	3526	2768
Grp Volume(v), veh/h	125	399	112	109	293	295	161	132	82	21	218	196
Grp Sat Flow(s),veh/h/ln	821	1763	1572	856	1763	1759	935	1763	1572	1158	1763	1384
Q Serve(g_s), s	8.7	5.7	3.4	1.9	4.2	4.2	8.5	3.3	4.6	1.6	5.6	6.4
Cycle Q Clear(g_c), s	13.0	5.7	3.4	7.6	4.2	4.2	14.0	3.3	4.6	4.9	5.6	6.4
Prop In Lane	1.00		1.00	1.00		0.31	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	548	2218	989	1116	1109	1107	587	1043	465	371	1043	819
V/C Ratio(X)	0.23	0.18	0.11	0.10	0.26	0.27	0.27	0.13	0.18	0.06	0.21	0.24
Avail Cap(c_a), veh/h	548	2218	989	1116	1109	1107	587	1043	465	371	1043	819
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.7	9.3	8.9	5.0	4.0	4.0	37.0	30.9	31.4	32.7	31.7	32.0
Incr Delay (d2), s/veh	1.0	0.2	0.2	0.2	0.6	0.6	1.2	0.2	0.8	0.3	0.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	2.2	1.2	0.3	1.5	1.5	2.0	1.4	1.8	0.5	2.4	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.6	9.5	9.1	5.1	4.6	4.6	38.1	31.2	32.2	33.0	32.2	32.7
LnGrp LOS	B	A	A	A	A	A	D	C	C	C	C	C
Approach Vol, veh/h		636			697			375			435	
Approach Delay, s/veh		10.0			4.6			34.4			32.5	
Approach LOS		B			A			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	40.0	80.0	40.0	80.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	35.5	75.5	35.5	75.5
Max Q Clear Time (g_c+I1), s	16.0	15.0	8.4	9.6
Green Ext Time (p_c), s	1.8	4.4	2.2	5.1

Intersection Summary	
HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	392	0	0	480	175	45
Future Volume (veh/h)	392	0	0	480	175	45
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	0	0	1856	1856	1856
Adj Flow Rate, veh/h	426	0	0	522	190	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	0	3	3	3
Cap, veh/h	1719	0	0	1719	773	688
Arrive On Green	0.98	0.00	0.00	0.49	0.44	0.44
Sat Flow, veh/h	3711	0	0	3711	1767	1572
Grp Volume(v), veh/h	426	0	0	522	190	49
Grp Sat Flow(s),veh/h/ln	1763	0	0	1763	1767	1572
Q Serve(g_s), s	0.5	0.0	0.0	10.7	8.1	2.2
Cycle Q Clear(g_c), s	0.5	0.0	0.0	10.7	8.1	2.2
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	1719	0	0	1719	773	688
V/C Ratio(X)	0.25	0.00	0.00	0.30	0.25	0.07
Avail Cap(c_a), veh/h	1719	0	0	1719	773	688
HCM Platoon Ratio	2.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.8	0.0	0.0	18.5	21.3	19.6
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.5	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	4.5	3.5	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.1	0.0	0.0	19.0	22.0	19.8
LnGrp LOS	A	A	A	B	C	B
Approach Vol, veh/h	426			522	239	
Approach Delay, s/veh	1.1			19.0	21.6	
Approach LOS	A			B	C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	57.0	63.0	63.0
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	52.5	58.5	58.5
Max Q Clear Time (g_c+I1), s	10.1	2.5	12.7
Green Ext Time (p_c), s	0.7	3.2	4.0

Intersection Summary	
HCM 6th Ctrl Delay	13.1
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	17.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	312	28	147	211	22	47	67	68	62	61	14
Future Vol, veh/h	8	312	28	147	211	22	47	67	68	62	61	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	9	339	30	160	229	24	51	73	74	67	66	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	18.4	20.9	13.5	13
HCM LOS	C	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	26%	2%	39%	50%	0%
Vol Thru, %	37%	90%	56%	50%	0%
Vol Right, %	37%	8%	6%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	182	348	380	123	14
LT Vol	47	8	147	62	0
Through Vol	67	312	211	61	0
RT Vol	68	28	22	0	14
Lane Flow Rate	198	378	413	134	15
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.366	0.624	0.683	0.283	0.028
Departure Headway (Hd)	6.655	5.936	5.952	7.611	6.634
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	540	609	607	472	539
Service Time	4.71	3.979	3.994	5.366	4.388
HCM Lane V/C Ratio	0.367	0.621	0.68	0.284	0.028
HCM Control Delay	13.5	18.4	20.9	13.4	9.6
HCM Lane LOS	B	C	C	B	A
HCM 95th-tile Q	1.7	4.3	5.3	1.2	0.1

Intersection	
Int Delay, s/veh	30.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	7	8	38	7	130	8	680	52	204	797	11
Future Vol, veh/h	6	7	8	38	7	130	8	680	52	204	797	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	-	125	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	7	8	9	41	8	141	9	739	57	222	866	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1708	2130	439	1667	2108	398	878	0	0	796	0	0
Stage 1	1316	1316	-	786	786	-	-	-	-	-	-	-
Stage 2	392	814	-	881	1322	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	58	48	563	62	50	599	759	-	-	815	-	-
Stage 1	165	224	-	349	399	-	-	-	-	-	-	-
Stage 2	601	387	-	306	222	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	29	35	563	~ 40	36	599	759	-	-	815	-	-
Mov Cap-2 Maneuver	29	35	-	~ 40	36	-	-	-	-	-	-	-
Stage 1	163	163	-	345	394	-	-	-	-	-	-	-
Stage 2	445	382	-	209	162	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	120.3	$ 312.7	0.1	2.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	759	-	-	32	563	129	815	-	-
HCM Lane V/C Ratio	0.011	-	-	0.442	0.015	1.475	0.272	-	-
HCM Control Delay (s)	9.8	-	-	187.2	11.5	$ 312.7	11.1	-	-
HCM Lane LOS	A	-	-	F	B	F	B	-	-
HCM 95th %tile Q(veh)	0	-	-	1.4	0	13.1	1.1	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	51	350	292	56	46	40
Future Vol, veh/h	51	350	292	56	46	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	55	380	317	61	50	43

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	378	0	-	0	838	348
Stage 1	-	-	-	-	348	-
Stage 2	-	-	-	-	490	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1175	-	-	-	335	693
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	614	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1175	-	-	-	315	693
Mov Cap-2 Maneuver	-	-	-	-	315	-
Stage 1	-	-	-	-	671	-
Stage 2	-	-	-	-	614	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	15.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1175	-	-	-	422
HCM Lane V/C Ratio	0.047	-	-	-	0.222
HCM Control Delay (s)	8.2	0	-	-	15.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8

HCM 6th Signalized Intersection Summary
3: Highland Avenue & Nebraska Avenue

12/16/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	137	28	53	168	126	35	480	54	158	520	167
Future Volume (veh/h)	140	137	28	53	168	126	35	480	54	158	520	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	152	149	30	58	183	137	38	522	59	172	565	182
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	250	200	35	130	265	179	72	1134	128	170	1077	346
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.04	0.36	0.36	0.10	0.41	0.41
Sat Flow, veh/h	515	689	120	173	912	617	1767	3194	360	1767	2624	843
Grp Volume(v), veh/h	331	0	0	378	0	0	38	287	294	172	379	368
Grp Sat Flow(s),veh/h/ln	1324	0	0	1702	0	0	1767	1763	1791	1767	1763	1704
Q Serve(g_s), s	2.0	0.0	0.0	0.0	0.0	0.0	1.1	6.5	6.6	5.0	8.4	8.5
Cycle Q Clear(g_c), s	12.4	0.0	0.0	10.4	0.0	0.0	1.1	6.5	6.6	5.0	8.4	8.5
Prop In Lane	0.46		0.09	0.15		0.36	1.00		0.20	1.00		0.49
Lane Grp Cap(c), veh/h	485	0	0	573	0	0	72	626	636	170	723	699
V/C Ratio(X)	0.68	0.00	0.00	0.66	0.00	0.00	0.53	0.46	0.46	1.01	0.52	0.53
Avail Cap(c_a), veh/h	560	0	0	663	0	0	170	626	636	170	723	699
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.3	0.0	0.0	16.8	0.0	0.0	24.5	13.0	13.0	23.6	11.5	11.6
Incr Delay (d2), s/veh	2.8	0.0	0.0	2.0	0.0	0.0	5.9	2.4	2.4	72.9	2.7	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.0	0.0	3.9	0.0	0.0	0.5	2.6	2.7	5.4	3.3	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.1	0.0	0.0	18.8	0.0	0.0	30.4	15.4	15.4	96.5	14.2	14.4
LnGrp LOS	C	A	A	B	A	A	C	B	B	F	B	B
Approach Vol, veh/h		331			378			619			919	
Approach Delay, s/veh		20.1			18.8			16.3			29.7	
Approach LOS		C			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.5	23.0		19.6	6.6	25.9		19.6
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.0	18.5		18.0	5.0	18.5		18.0
Max Q Clear Time (g_c+I1), s	7.0	8.6		14.4	3.1	10.5		12.4
Green Ext Time (p_c), s	0.0	2.5		0.7	0.0	3.0		1.1

Intersection Summary	
HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	14.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	33	330	36	20	334	34	14	13	27	40	18	26
Future Vol, veh/h	33	330	36	20	334	34	14	13	27	40	18	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	36	359	39	22	363	37	15	14	29	43	20	28
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	15.7	15.1	9.7	10.3
HCM LOS	C	C	A	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	26%	8%	6%	0%	48%
Vol Thru, %	24%	83%	94%	0%	21%
Vol Right, %	50%	9%	0%	100%	31%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	54	399	354	34	84
LT Vol	14	33	20	0	40
Through Vol	13	330	334	0	18
RT Vol	27	36	0	34	26
Lane Flow Rate	59	434	385	37	91
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.098	0.611	0.588	0.049	0.155
Departure Headway (Hd)	6.039	5.069	5.503	4.767	6.106
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	592	716	658	754	587
Service Time	4.088	3.08	3.213	2.477	4.15
HCM Lane V/C Ratio	0.1	0.606	0.585	0.049	0.155
HCM Control Delay	9.7	15.7	15.8	7.7	10.3
HCM Lane LOS	A	C	C	A	B
HCM 95th-tile Q	0.3	4.2	3.8	0.2	0.5

Intersection	
Int Delay, s/veh	15.8

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	164	0	157	0	0	0	0	506	80	123	521	0
Future Vol, veh/h	164	0	157	0	0	0	0	506	80	123	521	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	22355	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	178	0	171	0	0	0	0	550	87	134	566	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1109	1471	283	-	0	0	637	0	0
Stage 1	834	834	-	-	-	-	-	-	-
Stage 2	275	637	-	-	-	-	-	-	-
Critical Hdwy	6.86	6.56	6.96	-	-	-	4.16	-	-
Critical Hdwy Stg 1	5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	202	125	711	0	-	-	936	-	0
Stage 1	384	379	-	0	-	-	-	-	0
Stage 2	744	467	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	~ 173	0	711	-	-	-	936	-	-
Mov Cap-2 Maneuver	~ 173	0	-	-	-	-	-	-	-
Stage 1	384	0	-	-	-	-	-	-	-
Stage 2	638	0	-	-	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	72.7	0	1.8
HCM LOS	F		

Minor Lane/Major Mvmt	NET	NER	SELn1	SELn2	SWL	SWT
Capacity (veh/h)	-	-	173	711	936	-
HCM Lane V/C Ratio	-	-	1.03	0.24	0.143	-
HCM Control Delay (s)	-	-	131.1	11.7	9.5	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	8.5	0.9	0.5	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	8.1

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	113	1	135	111	550	0	0	534	187
Future Vol, veh/h	0	0	0	113	1	135	111	550	0	0	534	187
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	123	1	147	121	598	0	0	580	203

Major/Minor	Minor1		Major1			Major2			
Conflicting Flow All	1130	1623	299	783	0	-	-	-	0
Stage 1	840	840	-	-	-	-	-	-	-
Stage 2	290	783	-	-	-	-	-	-	-
Critical Hdwy	6.86	6.56	6.96	4.16	-	-	-	-	-
Critical Hdwy Stg 1	5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	2.23	-	-	-	-	-
Pot Cap-1 Maneuver	196	101	694	824	-	0	0	-	-
Stage 1	381	377	-	-	-	0	0	-	-
Stage 2	731	400	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	153	0	694	824	-	-	-	-	-
Mov Cap-2 Maneuver	153	0	-	-	-	-	-	-	-
Stage 1	297	0	-	-	-	-	-	-	-
Stage 2	731	0	-	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	46.5	2.4	0
HCM LOS	E		

Minor Lane/Major Mvmt	NEL	NET	NWLn1	NWLn2	SWT	SWR
Capacity (veh/h)	824	-	153	694	-	-
HCM Lane V/C Ratio	0.146	-	0.81	0.211	-	-
HCM Control Delay (s)	10.1	0.8	87.8	11.6	-	-
HCM Lane LOS	B	A	F	B	-	-
HCM 95th %tile Q(veh)	0.5	-	5.2	0.8	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	573	101	103	605	0	0	0	131	352	51	133
Future Volume (veh/h)	0	573	101	103	605	0	0	0	131	352	51	133
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1856	1856	1856	1856	0	0	0	1856	1856	1856	1856
Adj Flow Rate, veh/h	0	623	110	112	658	0	0	0	142	383	55	145
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	3	3	3	3	0	0	0	3	3	3	3
Cap, veh/h	0	917	409	143	1528	0	0	0	0	1306	707	599
Arrive On Green	0.00	0.26	0.26	0.08	0.43	0.00	0.00	0.00	0.00	0.38	0.38	0.38
Sat Flow, veh/h	0	3618	1572	1767	3618	0		0		3428	1856	1572
Grp Volume(v), veh/h	0	623	110	112	658	0		0.0		383	55	145
Grp Sat Flow(s),veh/h/ln	0	1763	1572	1767	1763	0				1714	1856	1572
Q Serve(g_s), s	0.0	7.7	2.7	3.0	6.3	0.0				3.8	0.9	3.1
Cycle Q Clear(g_c), s	0.0	7.7	2.7	3.0	6.3	0.0				3.8	0.9	3.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	917	409	143	1528	0				1306	707	599
V/C Ratio(X)	0.00	0.68	0.27	0.78	0.43	0.00				0.29	0.08	0.24
Avail Cap(c_a), veh/h	0	1307	583	200	2033	0				1306	707	599
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	16.1	14.3	21.9	9.6	0.0				10.5	9.6	10.2
Incr Delay (d2), s/veh	0.0	0.9	0.3	12.6	0.2	0.0				0.6	0.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.8	0.9	1.6	2.0	0.0				1.3	0.4	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.0	14.6	34.5	9.8	0.0				11.0	9.8	11.2
LnGrp LOS	A	B	B	C	A	A				B	A	B
Approach Vol, veh/h		733			770						583	
Approach Delay, s/veh		16.7			13.4						11.0	
Approach LOS		B			B						B	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		8.4	17.1		23.0		25.5					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		5.5	18.0		18.5		28.0					
Max Q Clear Time (g_c+I1), s		5.0	9.7		5.8		8.3					
Green Ext Time (p_c), s		0.0	2.9		1.9		4.5					

Intersection Summary	
HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	0	1119	654	290	0	0
Future Vol, veh/h	0	1119	654	290	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	1216	711	315	0	0
Number of Lanes	0	2	2	0	0	0

Approach	EB	WB
Opposing Approach	WB	EB
Opposing Lanes	2	2
Conflicting Approach Left		
Conflicting Lanes Left	0	0
Conflicting Approach Right		
Conflicting Lanes Right	0	0
HCM Control Delay	5	5
HCM LOS	A	A

Lane	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	43%
Vol Right, %	0%	0%	0%	57%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	560	560	436	508
LT Vol	0	0	0	0
Through Vol	560	560	436	218
RT Vol	0	0	0	290
Lane Flow Rate	608	608	474	552
Geometry Grp	0	0	0	0
Degree of Util (X)	0	0	0	0
Departure Headway (Hd)	0	0	0	0
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	0	0	0
Service Time	0	0	0	0
HCM Lane V/C Ratio	0	0	0	0
HCM Control Delay	5	5	5	5
HCM Lane LOS	N	N	N	N
HCM 95th-tile Q	0	0	0	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	625	273	126	524	105	164	201	134	59	264	276
Future Volume (veh/h)	196	625	273	126	524	105	164	201	134	59	264	276
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	213	679	297	137	570	114	178	218	146	64	287	300
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	500	2218	989	720	1843	367	492	1043	465	312	1043	819
Arrive On Green	0.63	0.63	0.63	0.84	0.84	0.84	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	751	3526	1572	1109	2929	584	1595	3526	1572	1010	3526	2768
Grp Volume(v), veh/h	213	679	297	137	342	342	178	218	146	64	287	300
Grp Sat Flow(s),veh/h/ln	751	1763	1572	555	1763	1750	797	1763	1572	1010	1763	1384
Q Serve(g_s), s	19.7	10.6	10.4	5.0	5.1	5.2	11.6	5.6	8.6	6.1	7.5	10.3
Cycle Q Clear(g_c), s	24.8	10.6	10.4	15.6	5.1	5.2	19.0	5.6	8.6	11.7	7.5	10.3
Prop In Lane	1.00		1.00	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	500	2218	989	720	1109	1101	492	1043	465	312	1043	819
V/C Ratio(X)	0.43	0.31	0.30	0.19	0.31	0.31	0.36	0.21	0.31	0.21	0.28	0.37
Avail Cap(c_a), veh/h	500	2218	989	720	1109	1101	492	1043	465	312	1043	819
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.3	10.2	10.2	6.7	4.0	4.1	39.7	31.7	32.8	36.1	32.4	33.4
Incr Delay (d2), s/veh	2.6	0.4	0.8	0.6	0.7	0.7	2.1	0.5	1.8	1.5	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	4.1	3.7	0.5	1.8	1.8	2.3	2.4	3.4	1.6	3.3	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.0	10.6	11.0	7.3	4.8	4.8	41.7	32.2	34.6	37.6	33.0	34.6
LnGrp LOS	B	B	B	A	A	A	D	C	C	D	C	C
Approach Vol, veh/h		1189			821			542			651	
Approach Delay, s/veh		11.8			5.2			36.0			34.2	
Approach LOS		B			A			D			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	40.0	80.0	40.0	80.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	35.5	75.5	35.5	75.5
Max Q Clear Time (g_c+I1), s	21.0	26.8	13.7	17.6
Green Ext Time (p_c), s	2.6	9.5	3.3	7.4

Intersection Summary	
HCM 6th Ctrl Delay	18.8
HCM 6th LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	750	0	0	589	159	54
Future Volume (veh/h)	750	0	0	589	159	54
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	0	0	1856	1856	1856
Adj Flow Rate, veh/h	815	0	0	640	173	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	0	3	3	3
Cap, veh/h	1719	0	0	1719	773	688
Arrive On Green	0.98	0.00	0.00	0.49	0.44	0.44
Sat Flow, veh/h	3711	0	0	3711	1767	1572
Grp Volume(v), veh/h	815	0	0	640	173	59
Grp Sat Flow(s),veh/h/ln	1763	0	0	1763	1767	1572
Q Serve(g_s), s	1.3	0.0	0.0	13.6	7.3	2.6
Cycle Q Clear(g_c), s	1.3	0.0	0.0	13.6	7.3	2.6
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	1719	0	0	1719	773	688
V/C Ratio(X)	0.47	0.00	0.00	0.37	0.22	0.09
Avail Cap(c_a), veh/h	1719	0	0	1719	773	688
HCM Platoon Ratio	2.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.8	0.0	0.0	19.3	21.0	19.7
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.6	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	5.7	3.2	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.7	0.0	0.0	19.9	21.7	20.0
LnGrp LOS	A	A	A	B	C	B
Approach Vol, veh/h	815			640	232	
Approach Delay, s/veh	1.7			19.9	21.3	
Approach LOS	A			B	C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	57.0	63.0	63.0
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	52.5	58.5	58.5
Max Q Clear Time (g_c+I1), s	9.3	3.3	15.6
Green Ext Time (p_c), s	0.7	7.1	5.1

Intersection Summary	
HCM 6th Ctrl Delay	11.3
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	16.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	305	46	79	337	21	48	36	66	27	31	10
Future Vol, veh/h	10	305	46	79	337	21	48	36	66	27	31	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	11	332	50	86	366	23	52	39	72	29	34	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	15.9	20.2	11.9	11
HCM LOS	C	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	32%	3%	18%	47%	0%
Vol Thru, %	24%	84%	77%	53%	0%
Vol Right, %	44%	13%	5%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	150	361	437	58	10
LT Vol	48	10	79	27	0
Through Vol	36	305	337	31	0
RT Vol	66	46	21	0	10
Lane Flow Rate	163	392	475	63	11
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.285	0.587	0.705	0.13	0.019
Departure Headway (Hd)	6.295	5.385	5.342	7.406	6.45
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	567	667	675	481	551
Service Time	4.373	3.442	3.395	5.194	4.237
HCM Lane V/C Ratio	0.287	0.588	0.704	0.131	0.02
HCM Control Delay	11.9	15.9	20.2	11.3	9.4
HCM Lane LOS	B	C	C	B	A
HCM 95th-tile Q	1.2	3.8	5.8	0.4	0.1

Intersection	
Int Delay, s/veh	48.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	19	8	34	5	196	11	878	58	127	656	13
Future Vol, veh/h	13	19	8	34	5	196	11	878	58	127	656	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	-	125	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	14	21	9	37	5	213	12	954	63	138	713	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1500	2037	364	1653	2013	509	727	0	0	1017	0	0
Stage 1	996	996	-	1010	1010	-	-	-	-	-	-	-
Stage 2	504	1041	-	643	1003	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	83	55	630	64	57	507	866	-	-	672	-	-
Stage 1	260	318	-	255	313	-	-	-	-	-	-	-
Stage 2	516	303	-	426	316	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	37	43	630	~ 33	45	507	866	-	-	672	-	-
Mov Cap-2 Maneuver	37	43	-	~ 33	45	-	-	-	-	-	-	-
Stage 1	256	253	-	251	309	-	-	-	-	-	-	-
Stage 2	290	299	-	307	251	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	206.6	$ 375.1	0.1	1.9
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	866	-	-	40	630	154	672	-	-
HCM Lane V/C Ratio	0.014	-	-	0.87	0.014	1.659	0.205	-	-
HCM Control Delay (s)	9.2	-	-	255.6	10.8	$ 375.1	11.7	-	-
HCM Lane LOS	A	-	-	F	B	F	B	-	-
HCM 95th %tile Q(veh)	0	-	-	3.3	0	18	0.8	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	187	241	0	0	0
Future Vol, veh/h	0	187	241	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	203	262	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	262	0	-	0	465	262
Stage 1	-	-	-	-	262	-
Stage 2	-	-	-	-	203	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1296	-	-	-	554	774
Stage 1	-	-	-	-	780	-
Stage 2	-	-	-	-	829	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1296	-	-	-	554	774
Mov Cap-2 Maneuver	-	-	-	-	554	-
Stage 1	-	-	-	-	780	-
Stage 2	-	-	-	-	829	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1296	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	108	2	48	121	90	37	733	34	45	565	58
Future Volume (veh/h)	125	108	2	48	121	90	37	733	34	45	565	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	136	117	2	52	132	98	40	797	37	49	614	63
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	281	174	3	145	203	134	78	1444	67	91	1382	142
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.04	0.42	0.42	0.05	0.43	0.43
Sat Flow, veh/h	702	788	12	219	917	605	1767	3430	159	1767	3228	331
Grp Volume(v), veh/h	255	0	0	282	0	0	40	409	425	49	335	342
Grp Sat Flow(s),veh/h/ln	1502	0	0	1741	0	0	1767	1763	1827	1767	1763	1796
Q Serve(g_s), s	0.3	0.0	0.0	0.0	0.0	0.0	1.0	7.7	7.7	1.2	5.9	5.9
Cycle Q Clear(g_c), s	6.7	0.0	0.0	6.4	0.0	0.0	1.0	7.7	7.7	1.2	5.9	5.9
Prop In Lane	0.53		0.01	0.18		0.35	1.00		0.09	1.00		0.18
Lane Grp Cap(c), veh/h	457	0	0	481	0	0	78	742	769	91	755	769
V/C Ratio(X)	0.56	0.00	0.00	0.59	0.00	0.00	0.52	0.55	0.55	0.54	0.44	0.45
Avail Cap(c_a), veh/h	719	0	0	786	0	0	201	742	769	201	755	769
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.9	0.0	0.0	15.9	0.0	0.0	20.6	9.6	9.6	20.4	8.9	8.9
Incr Delay (d2), s/veh	1.1	0.0	0.0	1.1	0.0	0.0	5.2	2.9	2.8	5.0	1.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.0	2.4	0.0	0.0	0.5	2.8	2.9	0.6	2.1	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.9	0.0	0.0	17.0	0.0	0.0	25.7	12.6	12.5	25.3	10.8	10.7
LnGrp LOS	B	A	A	B	A	A	C	B	B	C	B	B
Approach Vol, veh/h		255			282			874			726	
Approach Delay, s/veh		16.9			17.0			13.1			11.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.8	23.0		14.2	6.4	23.3		14.2
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.0	18.5		18.0	5.0	18.5		18.0
Max Q Clear Time (g_c+I1), s	3.2	9.7		8.7	3.0	7.9		8.4
Green Ext Time (p_c), s	0.0	3.5		1.0	0.0	3.1		1.1

Intersection Summary	
HCM 6th Ctrl Delay	13.6
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	153	8	27	156	84	21	32	47	106	34	47
Future Vol, veh/h	26	153	8	27	156	84	21	32	47	106	34	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	28	166	9	29	170	91	23	35	51	115	37	51
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	10.7	10.3	9.4	10.7
HCM LOS	B	B	A	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	21%	14%	15%	0%	57%
Vol Thru, %	32%	82%	85%	0%	18%
Vol Right, %	47%	4%	0%	100%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	100	187	183	84	187
LT Vol	21	26	27	0	106
Through Vol	32	153	156	0	34
RT Vol	47	8	0	84	47
Lane Flow Rate	109	203	199	91	203
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.161	0.302	0.318	0.126	0.304
Departure Headway (Hd)	5.348	5.347	5.753	4.971	5.377
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	671	673	627	722	669
Service Time	3.382	3.373	3.477	2.694	3.406
HCM Lane V/C Ratio	0.162	0.302	0.317	0.126	0.303
HCM Control Delay	9.4	10.7	11.1	8.4	10.7
HCM Lane LOS	A	B	B	A	B
HCM 95th-tile Q	0.6	1.3	1.4	0.4	1.3

Intersection	
Int Delay, s/veh	67.8

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	232	0	50	0	0	0	0	656	48	154	489	0
Future Vol, veh/h	232	0	50	0	0	0	0	656	48	154	489	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	22355	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	252	0	54	0	0	0	0	713	52	167	532	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1223	1631	266	-	0	0	765	0	0
Stage 1	866	866	-	-	-	-	-	-	-
Stage 2	357	765	-	-	-	-	-	-	-
Critical Hdwy	6.86	6.56	6.96	-	-	-	4.16	-	-
Critical Hdwy Stg 1	5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	~ 170	100	729	0	-	-	837	-	0
Stage 1	370	366	-	0	-	-	-	-	0
Stage 2	676	408	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	~ 136	0	729	-	-	-	837	-	-
Mov Cap-2 Maneuver	~ 136	0	-	-	-	-	-	-	-
Stage 1	370	0	-	-	-	-	-	-	-
Stage 2	541	0	-	-	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s$	385.7	0	2.5
HCM LOS	F		

Minor Lane/Major Mvmt	NET	NER	SELn1	SELn2	SWL	SWT
Capacity (veh/h)	-	-	136	729	837	-
HCM Lane V/C Ratio	-	-	1.854	0.075	0.2	-
HCM Control Delay (s)	-	-	$ 466.6	10.3	10.4	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	19.4	0.2	0.7	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	5.1

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	48	0	182	122	769	0	0	602	238
Future Vol, veh/h	0	0	0	48	0	182	122	769	0	0	602	238
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	52	0	198	133	836	0	0	654	259

Major/Minor	Minor1		Major1			Major2			
Conflicting Flow All	1429	2015	418	913	0	-	-	-	0
Stage 1	1102	1102	-	-	-	-	-	-	-
Stage 2	327	913	-	-	-	-	-	-	-
Critical Hdwy	6.86	6.56	6.96	4.16	-	-	-	-	-
Critical Hdwy Stg 1	5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	2.23	-	-	-	-	-
Pot Cap-1 Maneuver	125	57	581	736	-	0	0	-	-
Stage 1	277	283	-	-	-	0	0	-	-
Stage 2	700	348	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	83	0	581	736	-	-	-	-	-
Mov Cap-2 Maneuver	83	0	-	-	-	-	-	-	-
Stage 1	184	0	-	-	-	-	-	-	-
Stage 2	700	0	-	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	33	2.7	0
HCM LOS	D		

Minor Lane/Major Mvmt	NEL	NET	NWLn1	NWLn2	SWT	SWR
Capacity (veh/h)	736	-	83	581	-	-
HCM Lane V/C Ratio	0.18	-	0.629	0.34	-	-
HCM Control Delay (s)	11	1.4	103.6	14.4	-	-
HCM Lane LOS	B	A	F	B	-	-
HCM 95th %tile Q(veh)	0.7	-	2.9	1.5	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	489	82	93	642	0	0	0	117	290	51	132
Future Volume (veh/h)	0	489	82	93	642	0	0	0	117	290	51	132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1856	1856	1856	1856	0	0	0	1856	1856	1856	1856
Adj Flow Rate, veh/h	0	532	89	101	698	0	0	0	127	315	55	143
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	3	3	3	3	0	0	0	3	3	3	3
Cap, veh/h	0	834	372	138	1449	0	0	0	0	1358	735	623
Arrive On Green	0.00	0.24	0.24	0.08	0.41	0.00	0.00	0.00	0.00	0.40	0.40	0.40
Sat Flow, veh/h	0	3618	1572	1767	3618	0		0		3428	1856	1572
Grp Volume(v), veh/h	0	532	89	101	698	0		0.0		315	55	143
Grp Sat Flow(s),veh/h/ln	0	1763	1572	1767	1763	0				1714	1856	1572
Q Serve(g_s), s	0.0	6.3	2.1	2.6	6.8	0.0				2.9	0.9	2.8
Cycle Q Clear(g_c), s	0.0	6.3	2.1	2.6	6.8	0.0				2.9	0.9	2.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	834	372	138	1449	0				1358	735	623
V/C Ratio(X)	0.00	0.64	0.24	0.73	0.48	0.00				0.23	0.07	0.23
Avail Cap(c_a), veh/h	0	1359	606	208	2114	0				1358	735	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	16.0	14.4	21.0	10.1	0.0				9.4	8.8	9.4
Incr Delay (d2), s/veh	0.0	0.8	0.3	7.2	0.2	0.0				0.4	0.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.3	0.7	1.2	2.1	0.0				0.9	0.3	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.8	14.8	28.3	10.3	0.0				9.8	9.0	10.2
LnGrp LOS	A	B	B	C	B	A				A	A	B
Approach Vol, veh/h		621			799						513	
Approach Delay, s/veh		16.5			12.6						9.8	
Approach LOS		B			B						A	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		8.2	15.5		23.0		23.7					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		5.5	18.0		18.5		28.0					
Max Q Clear Time (g_c+I1), s		4.6	8.3		4.9		8.8					
Green Ext Time (p_c), s		0.0	2.7		1.7		4.7					

Intersection Summary	
HCM 6th Ctrl Delay	13.1
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	0	901	732	392	0	0
Future Vol, veh/h	0	901	732	392	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	979	796	426	0	0
Number of Lanes	0	2	2	0	0	0

Approach	EB	WB
Opposing Approach	WB	EB
Opposing Lanes	2	2
Conflicting Approach Left		
Conflicting Lanes Left	0	0
Conflicting Approach Right		
Conflicting Lanes Right	0	0
HCM Control Delay	5	5
HCM LOS	A	A

Lane	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	38%
Vol Right, %	0%	0%	0%	62%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	451	451	488	636
LT Vol	0	0	0	0
Through Vol	451	451	488	244
RT Vol	0	0	0	392
Lane Flow Rate	490	490	530	691
Geometry Grp	0	0	0	0
Degree of Util (X)	0	0	0	0
Departure Headway (Hd)	0	0	0	0
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	0	0	0
Service Time	0	0	0	0
HCM Lane V/C Ratio	0	0	0	0
HCM Control Delay	5	5	5	5
HCM Lane LOS	N	N	N	N
HCM 95th-tile Q	0	0	0	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	579	119	148	722	130	114	167	97	31	306	283
Future Volume (veh/h)	182	579	119	148	722	130	114	167	97	31	306	283
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	198	629	129	161	785	141	124	182	105	34	333	308
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	397	2218	989	866	1878	337	457	1043	465	339	1043	819
Arrive On Green	0.63	0.63	0.63	0.84	0.84	0.84	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	599	3526	1572	1360	2986	536	1517	3526	1572	1084	3526	2768
Grp Volume(v), veh/h	198	629	129	161	463	463	124	182	105	34	333	308
Grp Sat Flow(s),veh/h/ln	599	1763	1572	680	1763	1759	758	1763	1572	1084	1763	1384
Q Serve(g_s), s	25.9	9.7	4.0	4.6	7.9	7.9	8.3	4.6	6.0	2.9	8.8	10.6
Cycle Q Clear(g_c), s	33.8	9.7	4.0	14.2	7.9	7.9	17.1	4.6	6.0	7.5	8.8	10.6
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	397	2218	989	866	1109	1107	457	1043	465	339	1043	819
V/C Ratio(X)	0.50	0.28	0.13	0.19	0.42	0.42	0.27	0.17	0.23	0.10	0.32	0.38
Avail Cap(c_a), veh/h	397	2218	989	866	1109	1107	457	1043	465	339	1043	819
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.1	10.0	9.0	6.3	4.3	4.3	39.5	31.4	31.9	34.1	32.9	33.5
Incr Delay (d2), s/veh	4.4	0.3	0.3	0.5	1.2	1.2	1.5	0.4	1.1	0.6	0.8	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	3.7	1.4	0.6	2.5	2.5	1.6	2.0	2.4	0.8	3.9	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.5	10.4	9.3	6.8	5.4	5.4	41.0	31.7	33.0	34.7	33.7	34.8
LnGrp LOS	C	B	A	A	A	A	D	C	C	C	C	C
Approach Vol, veh/h		956			1087			411			675	
Approach Delay, s/veh		12.5			5.6			34.8			34.2	
Approach LOS		B			A			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	40.0	80.0	40.0	80.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	35.5	75.5	35.5	75.5
Max Q Clear Time (g_c+I1), s	19.1	35.8	12.6	16.2
Green Ext Time (p_c), s	2.1	8.4	3.5	10.1

Intersection Summary	
HCM 6th Ctrl Delay	17.7
HCM 6th LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	595	0	0	748	277	71
Future Volume (veh/h)	595	0	0	748	277	71
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	0	0	1856	1856	1856
Adj Flow Rate, veh/h	647	0	0	813	301	77
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	0	3	3	3
Cap, veh/h	1719	0	0	1719	773	688
Arrive On Green	0.98	0.00	0.00	0.49	0.44	0.44
Sat Flow, veh/h	3711	0	0	3711	1767	1572
Grp Volume(v), veh/h	647	0	0	813	301	77
Grp Sat Flow(s),veh/h/ln	1763	0	0	1763	1767	1572
Q Serve(g_s), s	0.9	0.0	0.0	18.4	13.9	3.5
Cycle Q Clear(g_c), s	0.9	0.0	0.0	18.4	13.9	3.5
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	1719	0	0	1719	773	688
V/C Ratio(X)	0.38	0.00	0.00	0.47	0.39	0.11
Avail Cap(c_a), veh/h	1719	0	0	1719	773	688
HCM Platoon Ratio	2.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.8	0.0	0.0	20.5	22.9	20.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.9	1.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	7.7	6.1	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.4	0.0	0.0	21.4	24.4	20.3
LnGrp LOS	A	A	A	C	C	C
Approach Vol, veh/h	647			813	378	
Approach Delay, s/veh	1.4			21.4	23.5	
Approach LOS	A			C	C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	57.0	63.0	63.0
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	52.5	58.5	58.5
Max Q Clear Time (g_c+I1), s	15.9	2.9	20.4
Green Ext Time (p_c), s	1.2	5.3	6.8

Intersection Summary	
HCM 6th Ctrl Delay	14.8
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	56.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	267	43	232	243	35	72	106	108	98	97	21
Future Vol, veh/h	11	267	43	232	243	35	72	106	108	98	97	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	12	290	47	252	264	38	78	115	117	107	105	23
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	29.6	106.2	26.8	20.5
HCM LOS	D	F	D	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	25%	3%	45%	50%	0%
Vol Thru, %	37%	83%	48%	50%	0%
Vol Right, %	38%	13%	7%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	286	321	510	195	21
LT Vol	72	11	232	98	0
Through Vol	106	267	243	97	0
RT Vol	108	43	35	0	21
Lane Flow Rate	311	349	554	212	23
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.674	0.731	1.126	0.517	0.05
Departure Headway (Hd)	8.286	7.94	7.312	9.277	8.287
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	438	457	493	392	435
Service Time	6.286	5.94	5.384	6.977	5.987
HCM Lane V/C Ratio	0.71	0.764	1.124	0.541	0.053
HCM Control Delay	26.8	29.6	106.2	21.5	11.4
HCM Lane LOS	D	D	F	C	B
HCM 95th-tile Q	4.9	5.9	18.7	2.9	0.2

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	11	13	26	11	204	13	939	58	322	1054	18
Future Vol, veh/h	10	11	13	26	11	204	13	939	58	322	1054	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	-	125	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	11	12	14	28	12	222	14	1021	63	350	1146	20

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2401	2968	583	2360	2947	542	1166	0	0	1084	0	0
Stage 1	1856	1856	-	1081	1081	-	-	-	-	-	-	-
Stage 2	545	1112	-	1279	1866	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	17	14	453	~ 18	14	482	589	-	-	633	-	-
Stage 1	75	121	-	231	290	-	-	-	-	-	-	-
Stage 2	488	280	-	174	119	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 6	453	-	~ 6	482	589	-	-	633	-	-
Mov Cap-2 Maneuver	-	~ 6	-	-	~ 6	-	-	-	-	-	-	-
Stage 1	73	54	-	225	283	-	-	-	-	-	-	-
Stage 2	246	273	-	59	53	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.1	4
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	589	-	-	-	453	-	633	-	-
HCM Lane V/C Ratio	0.024	-	-	-	0.031	-	0.553	-	-
HCM Control Delay (s)	11.3	-	-	-	13.2	-	17.5	-	-
HCM Lane LOS	B	-	-	-	B	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	-	3.4	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	394	315	0	0	0
Future Vol, veh/h	0	394	315	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	428	342	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	342	0	-	0	770	342
Stage 1	-	-	-	-	342	-
Stage 2	-	-	-	-	428	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1211	-	-	-	367	698
Stage 1	-	-	-	-	717	-
Stage 2	-	-	-	-	655	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1211	-	-	-	367	698
Mov Cap-2 Maneuver	-	-	-	-	367	-
Stage 1	-	-	-	-	717	-
Stage 2	-	-	-	-	655	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1211	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	137	27	64	129	116	26	758	61	142	820	127
Future Volume (veh/h)	142	137	27	64	129	116	26	758	61	142	820	127
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	154	149	29	70	140	126	28	824	66	154	891	138
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	259	200	34	153	222	174	57	1192	95	172	1303	202
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.03	0.36	0.36	0.10	0.43	0.43
Sat Flow, veh/h	560	716	122	244	797	624	1767	3306	265	1767	3059	474
Grp Volume(v), veh/h	332	0	0	336	0	0	28	439	451	154	513	516
Grp Sat Flow(s),veh/h/ln	1399	0	0	1665	0	0	1767	1763	1808	1767	1763	1770
Q Serve(g_s), s	2.4	0.0	0.0	0.0	0.0	0.0	0.8	10.9	10.9	4.4	12.1	12.1
Cycle Q Clear(g_c), s	11.5	0.0	0.0	9.1	0.0	0.0	0.8	10.9	10.9	4.4	12.1	12.1
Prop In Lane	0.46		0.09	0.21		0.37	1.00		0.15	1.00		0.27
Lane Grp Cap(c), veh/h	493	0	0	549	0	0	57	635	652	172	751	754
V/C Ratio(X)	0.67	0.00	0.00	0.61	0.00	0.00	0.49	0.69	0.69	0.89	0.68	0.68
Avail Cap(c_a), veh/h	593	0	0	662	0	0	172	635	652	172	751	754
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.3	0.0	0.0	16.6	0.0	0.0	24.4	14.0	14.0	22.9	11.9	11.9
Incr Delay (d2), s/veh	2.3	0.0	0.0	1.2	0.0	0.0	6.5	6.1	5.9	40.1	5.0	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.0	3.3	0.0	0.0	0.4	4.7	4.8	3.6	4.9	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.6	0.0	0.0	17.8	0.0	0.0	30.9	20.1	19.9	63.0	16.9	16.9
LnGrp LOS	B	A	A	B	A	A	C	C	B	E	B	B
Approach Vol, veh/h		332			336			918			1183	
Approach Delay, s/veh		19.6			17.8			20.3			22.9	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.5	23.0		18.8	6.1	26.4		18.8
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.0	18.5		18.0	5.0	18.5		18.0
Max Q Clear Time (g_c+I1), s	6.4	12.9		13.5	2.8	14.1		11.1
Green Ext Time (p_c), s	0.0	2.7		0.8	0.0	2.5		1.2

Intersection Summary	
HCM 6th Ctrl Delay	21.0
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	16.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	339	56	32	259	53	23	21	42	63	29	40
Future Vol, veh/h	51	339	56	32	259	53	23	21	42	63	29	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	55	368	61	35	282	58	25	23	46	68	32	43
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	20.8	14.1	10.6	11.5
HCM LOS	C	B	B	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	27%	11%	11%	0%	48%
Vol Thru, %	24%	76%	89%	0%	22%
Vol Right, %	49%	13%	0%	100%	30%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	86	446	291	53	132
LT Vol	23	51	32	0	63
Through Vol	21	339	259	0	29
RT Vol	42	56	0	53	40
Lane Flow Rate	93	485	316	58	143
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.164	0.718	0.523	0.083	0.251
Departure Headway (Hd)	6.297	5.33	5.955	5.189	6.302
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	566	679	604	688	567
Service Time	4.376	3.379	3.708	2.942	4.376
HCM Lane V/C Ratio	0.164	0.714	0.523	0.084	0.252
HCM Control Delay	10.6	20.8	15.1	8.4	11.5
HCM Lane LOS	B	C	C	A	B
HCM 95th-tile Q	0.6	6.1	3	0.3	1

Intersection	
Int Delay, s/veh	154.5

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	259	0	148	0	0	0	0	658	64	195	653	0
Future Vol, veh/h	259	0	148	0	0	0	0	658	64	195	653	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	22355	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	282	0	161	0	0	0	0	715	70	212	710	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1492	1919	355	-	0	0	785	0	0
Stage 1	1134	1134	-	-	-	-	-	-	-
Stage 2	358	785	-	-	-	-	-	-	-
Critical Hdwy	6.86	6.56	6.96	-	-	-	4.16	-	-
Critical Hdwy Stg 1	5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	~ 113	66	638	0	-	-	823	-	0
Stage 1	~ 267	274	-	0	-	-	-	-	0
Stage 2	675	399	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	~ 84	0	638	-	-	-	823	-	-
Mov Cap-2 Maneuver	~ 84	0	-	-	-	-	-	-	-
Stage 1	~ 267	0	-	-	-	-	-	-	-
Stage 2	501	0	-	-	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s$	745.2	0	2.5
HCM LOS	F		

Minor Lane/Major Mvmt	NET	NER	SELn1	SELn2	SWL	SWT
Capacity (veh/h)	-	-	84	638	823	-
HCM Lane V/C Ratio	-	-	3.351	0.252	0.258	-
HCM Control Delay (s)	-	-	$ 1163.9	12.5	10.9	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	28.4	1	1	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	7.6

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	50	2	212	106	836	0	0	799	294
Future Vol, veh/h	0	0	0	50	2	212	106	836	0	0	799	294
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	54	2	230	115	909	0	0	868	320

Major/Minor	Minor1		Major1			Major2			
Conflicting Flow All	1573	2327	455	1188	0	-	-	-	0
Stage 1	1139	1139	-	-	-	-	-	-	-
Stage 2	434	1188	-	-	-	-	-	-	-
Critical Hdwy	6.86	6.56	6.96	4.16	-	-	-	-	-
Critical Hdwy Stg 1	5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	2.23	-	-	-	-	-
Pot Cap-1 Maneuver	100	36	550	578	-	0	0	-	-
Stage 1	265	272	-	-	-	0	0	-	-
Stage 2	618	258	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	60	0	550	578	-	-	-	-	-
Mov Cap-2 Maneuver	60	0	-	-	-	-	-	-	-
Stage 1	158	0	-	-	-	-	-	-	-
Stage 2	618	0	-	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	54.8	3.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NEL	NET	NWLn1	NWLn2	SWT	SWR
Capacity (veh/h)	578	-	60	550	-	-
HCM Lane V/C Ratio	0.199	-	0.942	0.419	-	-
HCM Control Delay (s)	12.8	2	212	16.2	-	-
HCM Lane LOS	B	A	F	C	-	-
HCM 95th %tile Q(veh)	0.7	-	4.4	2.1	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	896	159	162	947	0	0	0	206	426	80	209
Future Volume (veh/h)	0	896	159	162	947	0	0	0	206	426	80	209
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1856	1856	1856	1856	0	0	0	1856	1856	1856	1856
Adj Flow Rate, veh/h	0	974	173	176	1029	0	0	0	224	463	87	227
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	3	3	3	3	0	0	0	3	3	3	3
Cap, veh/h	0	1120	499	177	1761	0	0	0	0	1154	625	529
Arrive On Green	0.00	0.32	0.32	0.10	0.50	0.00	0.00	0.00	0.00	0.34	0.34	0.34
Sat Flow, veh/h	0	3618	1572	1767	3618	0		0		3428	1856	1572
Grp Volume(v), veh/h	0	974	173	176	1029	0		0.0		463	87	227
Grp Sat Flow(s),veh/h/ln	0	1763	1572	1767	1763	0				1714	1856	1572
Q Serve(g_s), s	0.0	14.3	4.6	5.5	11.3	0.0				5.7	1.8	6.2
Cycle Q Clear(g_c), s	0.0	14.3	4.6	5.5	11.3	0.0				5.7	1.8	6.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1120	499	177	1761	0				1154	625	529
V/C Ratio(X)	0.00	0.87	0.35	1.00	0.58	0.00				0.40	0.14	0.43
Avail Cap(c_a), veh/h	0	1155	515	177	1796	0				1154	625	529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	17.7	14.4	24.7	9.7	0.0				14.0	12.7	14.1
Incr Delay (d2), s/veh	0.0	7.2	0.4	66.2	0.5	0.0				1.0	0.5	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.2	1.5	5.4	3.6	0.0				2.1	0.7	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	24.9	14.8	90.9	10.2	0.0				15.0	13.2	16.7
LnGrp LOS	A	C	B	F	B	A				B	B	B
Approach Vol, veh/h		1147			1205						777	
Approach Delay, s/veh		23.4			22.0						15.3	
Approach LOS		C			C						B	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		10.0	22.0		23.0		32.0					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		5.5	18.0		18.5		28.0					
Max Q Clear Time (g_c+I1), s		7.5	16.3		8.2		13.3					
Green Ext Time (p_c), s		0.0	1.1		2.4		6.4					

Intersection Summary	
HCM 6th Ctrl Delay	20.8
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	0	1628	1025	378	0	0
Future Vol, veh/h	0	1628	1025	378	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	1770	1114	411	0	0
Number of Lanes	0	2	2	0	0	0

Approach	EB	WB
Opposing Approach	WB	EB
Opposing Lanes	2	2
Conflicting Approach Left		
Conflicting Lanes Left	0	0
Conflicting Approach Right		
Conflicting Lanes Right	0	0
HCM Control Delay	5	5
HCM LOS	A	A

Lane	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	47%
Vol Right, %	0%	0%	0%	53%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	814	814	683	720
LT Vol	0	0	0	0
Through Vol	814	814	683	342
RT Vol	0	0	0	378
Lane Flow Rate	885	885	743	782
Geometry Grp	0	0	0	0
Degree of Util (X)	0	0	0	0
Departure Headway (Hd)	0	0	0	0
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	0	0	0
Service Time	0	0	0	0
HCM Lane V/C Ratio	0	0	0	0
HCM Control Delay	5	5	5	5
HCM Lane LOS	N	N	N	N
HCM 95th-tile Q	0	0	0	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	309	986	294	169	827	166	172	293	191	93	381	436
Future Volume (veh/h)	309	986	294	169	827	166	172	293	191	93	381	436
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	336	1072	320	184	899	180	187	318	208	101	414	474
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	386	2218	989	469	1842	369	364	1043	465	257	1043	819
Arrive On Green	0.63	0.63	0.63	1.00	1.00	1.00	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	519	3526	1572	747	2927	586	1205	3526	1572	870	3526	2768
Grp Volume(v), veh/h	336	1072	320	184	541	538	187	318	208	101	414	474
Grp Sat Flow(s),veh/h/ln	519	1763	1572	374	1763	1750	602	1763	1572	870	1763	1384
Q Serve(g_s), s	75.5	19.4	11.4	12.5	0.0	0.0	17.6	8.4	12.9	12.2	11.2	17.5
Cycle Q Clear(g_c), s	75.5	19.4	11.4	32.0	0.0	0.0	28.8	8.4	12.9	20.6	11.2	17.5
Prop In Lane	1.00		1.00	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	386	2218	989	469	1109	1101	364	1043	465	257	1043	819
V/C Ratio(X)	0.87	0.48	0.32	0.39	0.49	0.49	0.51	0.30	0.45	0.39	0.40	0.58
Avail Cap(c_a), veh/h	386	2218	989	469	1109	1101	364	1043	465	257	1043	819
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.3	11.9	10.4	4.1	0.0	0.0	45.2	32.7	34.3	40.7	33.7	35.9
Incr Delay (d2), s/veh	22.5	0.8	0.9	2.5	1.5	1.5	5.1	0.8	3.1	4.5	1.1	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	7.5	4.0	0.8	0.5	0.5	2.8	3.6	5.2	2.9	4.9	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.8	12.6	11.2	6.6	1.5	1.5	50.3	33.5	37.4	45.1	34.8	38.9
LnGrp LOS	D	B	B	A	A	A	D	C	D	D	C	D
Approach Vol, veh/h		1728			1263			713			989	
Approach Delay, s/veh		18.8			2.3			39.0			37.8	
Approach LOS		B			A			D			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	40.0	80.0	40.0	80.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	35.5	75.5	35.5	75.5
Max Q Clear Time (g_c+I1), s	30.8	77.5	22.6	34.0
Green Ext Time (p_c), s	1.8	0.0	4.4	15.3

Intersection Summary	
HCM 6th Ctrl Delay	21.4
HCM 6th LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1166	0	0	898	251	85
Future Volume (veh/h)	1166	0	0	898	251	85
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	0	0	1856	1856	1856
Adj Flow Rate, veh/h	1267	0	0	976	273	92
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	0	3	3	3
Cap, veh/h	1719	0	0	1719	773	688
Arrive On Green	0.98	0.00	0.00	0.49	0.44	0.44
Sat Flow, veh/h	3711	0	0	3711	1767	1572
Grp Volume(v), veh/h	1267	0	0	976	273	92
Grp Sat Flow(s),veh/h/ln	1763	0	0	1763	1767	1572
Q Serve(g_s), s	3.8	0.0	0.0	23.5	12.3	4.2
Cycle Q Clear(g_c), s	3.8	0.0	0.0	23.5	12.3	4.2
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	1719	0	0	1719	773	688
V/C Ratio(X)	0.74	0.00	0.00	0.57	0.35	0.13
Avail Cap(c_a), veh/h	1719	0	0	1719	773	688
HCM Platoon Ratio	2.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.8	0.0	0.0	21.8	22.5	20.2
Incr Delay (d2), s/veh	2.9	0.0	0.0	1.4	1.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	9.9	5.4	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.7	0.0	0.0	23.2	23.7	20.6
LnGrp LOS	A	A	A	C	C	C
Approach Vol, veh/h	1267			976	365	
Approach Delay, s/veh	3.7			23.2	22.9	
Approach LOS	A			C	C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	57.0	63.0	63.0
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	52.5	58.5	58.5
Max Q Clear Time (g_c+I1), s	14.3	5.8	25.5
Green Ext Time (p_c), s	1.2	13.7	8.5

Intersection Summary	
HCM 6th Ctrl Delay	13.7
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	21
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	298	68	124	254	34	71	56	105	42	50	11
Future Vol, veh/h	11	298	68	124	254	34	71	56	105	42	50	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	12	324	74	135	276	37	77	61	114	46	54	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	21.5	25.7	15.7	12.8
HCM LOS	C	D	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	31%	3%	30%	46%	0%
Vol Thru, %	24%	79%	62%	54%	0%
Vol Right, %	45%	18%	8%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	232	377	412	92	11
LT Vol	71	11	124	42	0
Through Vol	56	298	254	50	0
RT Vol	105	68	34	0	11
Lane Flow Rate	252	410	448	100	12
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.472	0.689	0.757	0.222	0.023
Departure Headway (Hd)	6.736	6.053	6.084	7.996	7.04
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	532	594	591	447	506
Service Time	4.8	4.109	4.139	5.773	4.816
HCM Lane V/C Ratio	0.474	0.69	0.758	0.224	0.024
HCM Control Delay	15.7	21.5	25.7	13.1	10
HCM Lane LOS	C	C	D	B	A
HCM 95th-tile Q	2.5	5.4	6.8	0.8	0.1

Intersection	
Int Delay, s/veh	59.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	19	8	37	5	196	11	900	58	127	668	13
Future Vol, veh/h	13	19	8	37	5	196	11	900	58	127	668	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	-	125	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	14	21	9	40	5	213	12	978	63	138	726	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1525	2074	370	1684	2050	521	740	0	0	1041	0	0
Stage 1	1009	1009	-	1034	1034	-	-	-	-	-	-	-
Stage 2	516	1065	-	650	1016	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	80	53	624	61	54	498	856	-	-	658	-	-
Stage 1	255	314	-	247	305	-	-	-	-	-	-	-
Stage 2	507	295	-	422	311	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	34	41	624	~ 31	42	498	856	-	-	658	-	-
Mov Cap-2 Maneuver	34	41	-	~ 31	42	-	-	-	-	-	-	-
Stage 1	251	248	-	244	301	-	-	-	-	-	-	-
Stage 2	281	291	-	301	246	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	225.5	$ 468	0.1	1.9
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	856	-	-	38	624	139	658	-	-
HCM Lane V/C Ratio	0.014	-	-	0.915	0.014	1.861	0.21	-	-
HCM Control Delay (s)	9.3	-	-	279.1	10.9	$ 468	11.9	-	-
HCM Lane LOS	A	-	-	F	B	F	B	-	-
HCM 95th %tile Q(veh)	0	-	-	3.4	0	19.8	0.8	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	187	241	21	30	35
Future Vol, veh/h	19	187	241	21	30	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	21	203	262	23	33	38

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	285	0	-	0	519	274
Stage 1	-	-	-	-	274	-
Stage 2	-	-	-	-	245	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1271	-	-	-	515	762
Stage 1	-	-	-	-	770	-
Stage 2	-	-	-	-	793	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1271	-	-	-	505	762
Mov Cap-2 Maneuver	-	-	-	-	505	-
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	793	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1271	-	-	-	617
HCM Lane V/C Ratio	0.016	-	-	-	0.115
HCM Control Delay (s)	7.9	0	-	-	11.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	108	2	52	121	116	37	733	37	61	565	58
Future Volume (veh/h)	125	108	2	52	121	116	37	733	37	61	565	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	136	117	2	57	132	126	40	797	40	66	614	63
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	275	181	3	144	193	162	77	1388	70	110	1372	141
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.04	0.41	0.41	0.06	0.42	0.42
Sat Flow, veh/h	655	769	11	216	821	691	1767	3416	171	1767	3228	331
Grp Volume(v), veh/h	255	0	0	315	0	0	40	411	426	66	335	342
Grp Sat Flow(s),veh/h/ln	1435	0	0	1728	0	0	1767	1763	1825	1767	1763	1796
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	0.0	1.0	8.2	8.2	1.7	6.1	6.2
Cycle Q Clear(g_c), s	7.3	0.0	0.0	7.5	0.0	0.0	1.0	8.2	8.2	1.7	6.1	6.2
Prop In Lane	0.53		0.01	0.18		0.40	1.00		0.09	1.00		0.18
Lane Grp Cap(c), veh/h	458	0	0	500	0	0	77	716	741	110	749	763
V/C Ratio(X)	0.56	0.00	0.00	0.63	0.00	0.00	0.52	0.57	0.57	0.60	0.45	0.45
Avail Cap(c_a), veh/h	678	0	0	757	0	0	194	716	741	194	749	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.0	0.0	0.0	16.2	0.0	0.0	21.3	10.5	10.5	20.8	9.3	9.3
Incr Delay (d2), s/veh	1.1	0.0	0.0	1.3	0.0	0.0	5.3	3.3	3.2	5.2	1.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0	2.8	0.0	0.0	0.5	3.1	3.2	0.8	2.2	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.0	0.0	0.0	17.5	0.0	0.0	26.6	13.8	13.7	26.0	11.2	11.2
LnGrp LOS	B	A	A	B	A	A	C	B	B	C	B	B
Approach Vol, veh/h		255			315			877			743	
Approach Delay, s/veh		17.0			17.5			14.3			12.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.3	23.0		15.2	6.5	23.8		15.2
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.0	18.5		18.0	5.0	18.5		18.0
Max Q Clear Time (g_c+I1), s	3.7	10.2		9.3	3.0	8.2		9.5
Green Ext Time (p_c), s	0.0	3.3		1.0	0.0	3.1		1.2

Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	188	8	27	177	84	21	32	47	106	34	47
Future Vol, veh/h	26	188	8	27	177	84	21	32	47	106	34	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	28	204	9	29	192	91	23	35	51	115	37	51
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	11.5	10.8	9.7	11.1
HCM LOS	B	B	A	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	21%	12%	13%	0%	57%
Vol Thru, %	32%	85%	87%	0%	18%
Vol Right, %	47%	4%	0%	100%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	100	222	204	84	187
LT Vol	21	26	27	0	106
Through Vol	32	188	177	0	34
RT Vol	47	8	0	84	47
Lane Flow Rate	109	241	222	91	203
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.167	0.363	0.359	0.128	0.314
Departure Headway (Hd)	5.539	5.412	5.824	5.049	5.554
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	647	664	619	709	646
Service Time	3.585	3.447	3.557	2.782	3.592
HCM Lane V/C Ratio	0.168	0.363	0.359	0.128	0.314
HCM Control Delay	9.7	11.5	11.8	8.5	11.1
HCM Lane LOS	A	B	B	A	B
HCM 95th-tile Q	0.6	1.7	1.6	0.4	1.3

Intersection	
Int Delay, s/veh	70.4

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	232	0	55	0	0	0	0	675	62	154	499	0
Future Vol, veh/h	232	0	55	0	0	0	0	675	62	154	499	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	22355	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	252	0	60	0	0	0	0	734	67	167	542	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1243	1677	271	-	0	0	801	0	0
Stage 1	876	876	-	-	-	-	-	-	-
Stage 2	367	801	-	-	-	-	-	-	-
Critical Hdwy	6.86	6.56	6.96	-	-	-	4.16	-	-
Critical Hdwy Stg 1	5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	~ 165	93	724	0	-	-	812	-	0
Stage 1	365	362	-	0	-	-	-	-	0
Stage 2	668	393	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	~ 131	0	724	-	-	-	812	-	-
Mov Cap-2 Maneuver	~ 131	0	-	-	-	-	-	-	-
Stage 1	365	0	-	-	-	-	-	-	-
Stage 2	530	0	-	-	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s$	405.9	0	2.5
HCM LOS	F		

Minor Lane/Major Mvmt	NET	NER	SELn1	SELn2	SWL	SWT
Capacity (veh/h)	-	-	131	724	812	-
HCM Lane V/C Ratio	-	-	1.925	0.083	0.206	-
HCM Control Delay (s)	-	-	$ 499.7	10.4	10.6	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	19.9	0.3	0.8	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	5.7

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	47	0	182	134	776	0	0	607	238
Future Vol, veh/h	0	0	0	47	0	182	134	776	0	0	607	238
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	51	0	198	146	843	0	0	660	259

Major/Minor	Minor1		Major1			Major2			
Conflicting Flow All	1465	2054	422	919	0	-	-	-	0
Stage 1	1135	1135	-	-	-	-	-	-	-
Stage 2	330	919	-	-	-	-	-	-	-
Critical Hdwy	6.86	6.56	6.96	4.16	-	-	-	-	-
Critical Hdwy Stg 1	5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	2.23	-	-	-	-	-
Pot Cap-1 Maneuver	118	54	577	732	-	0	0	-	-
Stage 1	266	273	-	-	-	0	0	-	-
Stage 2	698	346	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	74	0	577	732	-	-	-	-	-
Mov Cap-2 Maneuver	74	0	-	-	-	-	-	-	-
Stage 1	166	0	-	-	-	-	-	-	-
Stage 2	698	0	-	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	37.2	3	0
HCM LOS	E		

Minor Lane/Major Mvmt	NEL	NET	NWLn1	NWLn2	SWT	SWR
Capacity (veh/h)	732	-	74	577	-	-
HCM Lane V/C Ratio	0.199	-	0.69	0.343	-	-
HCM Control Delay (s)	11.1	1.6	125.3	14.5	-	-
HCM Lane LOS	B	A	F	B	-	-
HCM 95th %tile Q(veh)	0.7	-	3.2	1.5	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	491	82	93	645	0	0	0	117	293	51	132
Future Volume (veh/h)	0	491	82	93	645	0	0	0	117	293	51	132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1856	1856	1856	1856	0	0	0	1856	1856	1856	1856
Adj Flow Rate, veh/h	0	534	89	101	701	0	0	0	127	318	55	143
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	3	3	3	3	0	0	0	3	3	3	3
Cap, veh/h	0	836	373	138	1451	0	0	0	0	1357	735	623
Arrive On Green	0.00	0.24	0.24	0.08	0.41	0.00	0.00	0.00	0.00	0.40	0.40	0.40
Sat Flow, veh/h	0	3618	1572	1767	3618	0		0		3428	1856	1572
Grp Volume(v), veh/h	0	534	89	101	701	0		0.0		318	55	143
Grp Sat Flow(s),veh/h/ln	0	1763	1572	1767	1763	0				1714	1856	1572
Q Serve(g_s), s	0.0	6.4	2.1	2.6	6.8	0.0				2.9	0.9	2.8
Cycle Q Clear(g_c), s	0.0	6.4	2.1	2.6	6.8	0.0				2.9	0.9	2.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	836	373	138	1451	0				1357	735	623
V/C Ratio(X)	0.00	0.64	0.24	0.73	0.48	0.00				0.23	0.07	0.23
Avail Cap(c_a), veh/h	0	1358	606	208	2113	0				1357	735	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	16.0	14.4	21.1	10.1	0.0				9.4	8.8	9.4
Incr Delay (d2), s/veh	0.0	0.8	0.3	7.2	0.3	0.0				0.4	0.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.3	0.7	1.2	2.1	0.0				0.9	0.3	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.8	14.7	28.3	10.4	0.0				9.8	9.0	10.2
LnGrp LOS	A	B	B	C	B	A				A	A	B
Approach Vol, veh/h		623			802						516	
Approach Delay, s/veh		16.5			12.6						9.8	
Approach LOS		B			B						A	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		8.2	15.6		23.0		23.7					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		5.5	18.0		18.5		28.0					
Max Q Clear Time (g_c+I1), s		4.6	8.4		4.9		8.8					
Green Ext Time (p_c), s		0.0	2.7		1.7		4.8					

Intersection Summary	
HCM 6th Ctrl Delay	13.1
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	0	906	735	403	0	0
Future Vol, veh/h	0	906	735	403	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	985	799	438	0	0
Number of Lanes	0	2	2	0	0	0

Approach	EB	WB
Opposing Approach	WB	EB
Opposing Lanes	2	2
Conflicting Approach Left		
Conflicting Lanes Left	0	0
Conflicting Approach Right		
Conflicting Lanes Right	0	0
HCM Control Delay	5	5
HCM LOS	A	A

Lane	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	38%
Vol Right, %	0%	0%	0%	62%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	453	453	490	648
LT Vol	0	0	0	0
Through Vol	453	453	490	245
RT Vol	0	0	0	403
Lane Flow Rate	492	492	533	704
Geometry Grp	0	0	0	0
Degree of Util (X)	0	0	0	0
Departure Headway (Hd)	0	0	0	0
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	0	0	0
Service Time	0	0	0	0
HCM Lane V/C Ratio	0	0	0	0
HCM Control Delay	5	5	5	5
HCM Lane LOS	N	N	N	N
HCM 95th-tile Q	0	0	0	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	579	124	148	722	130	128	171	100	31	309	283
Future Volume (veh/h)	182	579	124	148	722	130	128	171	100	31	309	283
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	198	629	135	161	785	141	139	186	109	34	336	308
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	397	2218	989	862	1878	337	455	1043	465	336	1043	819
Arrive On Green	0.63	0.63	0.63	0.84	0.84	0.84	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	599	3526	1572	1353	2986	536	1513	3526	1572	1076	3526	2768
Grp Volume(v), veh/h	198	629	135	161	463	463	139	186	109	34	336	308
Grp Sat Flow(s),veh/h/ln	599	1763	1572	676	1763	1759	756	1763	1572	1076	1763	1384
Q Serve(g_s), s	25.9	9.7	4.2	4.6	7.9	7.9	9.5	4.7	6.3	2.9	8.9	10.6
Cycle Q Clear(g_c), s	33.8	9.7	4.2	14.2	7.9	7.9	18.4	4.7	6.3	7.6	8.9	10.6
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	397	2218	989	862	1109	1107	455	1043	465	336	1043	819
V/C Ratio(X)	0.50	0.28	0.14	0.19	0.42	0.42	0.31	0.18	0.23	0.10	0.32	0.38
Avail Cap(c_a), veh/h	397	2218	989	862	1109	1107	455	1043	465	336	1043	819
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.1	10.0	9.0	6.3	4.3	4.3	40.0	31.4	32.0	34.2	32.9	33.5
Incr Delay (d2), s/veh	4.4	0.3	0.3	0.5	1.2	1.2	1.7	0.4	1.2	0.6	0.8	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	3.7	1.5	0.6	2.5	2.5	1.8	2.0	2.5	0.8	3.9	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.5	10.4	9.3	6.8	5.4	5.4	41.8	31.8	33.1	34.8	33.7	34.8
LnGrp LOS	C	B	A	A	A	A	D	C	C	C	C	C
Approach Vol, veh/h		962			1087			434			678	
Approach Delay, s/veh		12.5			5.6			35.3			34.3	
Approach LOS		B			A			D			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	40.0	80.0	40.0	80.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	35.5	75.5	35.5	75.5
Max Q Clear Time (g_c+I1), s	20.4	35.8	12.6	16.2
Green Ext Time (p_c), s	2.1	8.4	3.6	10.2

Intersection Summary	
HCM 6th Ctrl Delay	17.9
HCM 6th LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	598	0	0	750	277	71
Future Volume (veh/h)	598	0	0	750	277	71
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	0	0	1856	1856	1856
Adj Flow Rate, veh/h	650	0	0	815	301	77
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	0	3	3	3
Cap, veh/h	1719	0	0	1719	773	688
Arrive On Green	0.98	0.00	0.00	0.49	0.44	0.44
Sat Flow, veh/h	3711	0	0	3711	1767	1572
Grp Volume(v), veh/h	650	0	0	815	301	77
Grp Sat Flow(s),veh/h/ln	1763	0	0	1763	1767	1572
Q Serve(g_s), s	0.9	0.0	0.0	18.5	13.9	3.5
Cycle Q Clear(g_c), s	0.9	0.0	0.0	18.5	13.9	3.5
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	1719	0	0	1719	773	688
V/C Ratio(X)	0.38	0.00	0.00	0.47	0.39	0.11
Avail Cap(c_a), veh/h	1719	0	0	1719	773	688
HCM Platoon Ratio	2.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.8	0.0	0.0	20.5	22.9	20.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.9	1.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	7.7	6.1	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.4	0.0	0.0	21.4	24.4	20.3
LnGrp LOS	A	A	A	C	C	C
Approach Vol, veh/h	650			815	378	
Approach Delay, s/veh	1.4			21.4	23.5	
Approach LOS	A			C	C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	57.0	63.0	63.0
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	52.5	58.5	58.5
Max Q Clear Time (g_c+I1), s	15.9	2.9	20.5
Green Ext Time (p_c), s	1.2	5.3	6.8

Intersection Summary	
HCM 6th Ctrl Delay	14.8
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	71.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	301	44	232	261	35	74	106	108	98	97	22
Future Vol, veh/h	12	301	44	232	261	35	74	106	108	98	97	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	13	327	48	252	284	38	80	115	117	107	105	24
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	38.7	138.4	29.1	21.5
HCM LOS	E	F	D	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	26%	3%	44%	50%	0%
Vol Thru, %	37%	84%	49%	50%	0%
Vol Right, %	38%	12%	7%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	288	357	528	195	22
LT Vol	74	12	232	98	0
Through Vol	106	301	261	97	0
RT Vol	108	44	35	0	22
Lane Flow Rate	313	388	574	212	24
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.693	0.818	1.212	0.527	0.053
Departure Headway (Hd)	8.671	8.178	7.604	9.647	8.655
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	419	446	482	377	416
Service Time	6.671	6.178	5.604	7.347	6.355
HCM Lane V/C Ratio	0.747	0.87	1.191	0.562	0.058
HCM Control Delay	29.1	38.7	138.4	22.6	11.8
HCM Lane LOS	D	E	F	C	B
HCM 95th-tile Q	5.1	7.6	22.2	2.9	0.2

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	11	13	34	11	204	13	964	65	322	1058	18
Future Vol, veh/h	10	11	13	34	11	204	13	964	65	322	1058	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	-	125	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	11	12	14	37	12	222	14	1048	71	350	1150	20

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2418	3007	585	2393	2982	560	1170	0	0	1119	0	0
Stage 1	1860	1860	-	1112	1112	-	-	-	-	-	-	-
Stage 2	558	1147	-	1281	1870	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	17	13	452	~ 17	13	469	587	-	-	614	-	-
Stage 1	75	120	-	221	280	-	-	-	-	-	-	-
Stage 2	479	270	-	174	119	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 5	452	-	~ 5	469	587	-	-	614	-	-
Mov Cap-2 Maneuver	-	~ 5	-	-	~ 5	-	-	-	-	-	-	-
Stage 1	73	52	-	216	273	-	-	-	-	-	-	-
Stage 2	236	264	-	56	51	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.1	4.2
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	587	-	-	-	452	-	614	-	-
HCM Lane V/C Ratio	0.024	-	-	-	0.031	-	0.57	-	-
HCM Control Delay (s)	11.3	-	-	-	13.2	-	18.3	-	-
HCM Lane LOS	B	-	-	-	B	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	-	3.6	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	51	394	315	56	46	42
Future Vol, veh/h	51	394	315	56	46	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	55	428	342	61	50	46

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	403	0	-	0	911	373
Stage 1	-	-	-	-	373	-
Stage 2	-	-	-	-	538	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1150	-	-	-	303	671
Stage 1	-	-	-	-	694	-
Stage 2	-	-	-	-	583	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1150	-	-	-	284	671
Mov Cap-2 Maneuver	-	-	-	-	284	-
Stage 1	-	-	-	-	650	-
Stage 2	-	-	-	-	583	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	17.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1150	-	-	-	392
HCM Lane V/C Ratio	0.048	-	-	-	0.244
HCM Control Delay (s)	8.3	0	-	-	17.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	137	27	72	129	151	26	758	69	184	820	127
Future Volume (veh/h)	142	137	27	72	129	151	26	758	69	184	820	127
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	154	149	29	78	140	164	28	824	75	200	891	138
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	252	200	34	154	204	207	56	1155	105	169	1276	198
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.03	0.35	0.35	0.10	0.42	0.42
Sat Flow, veh/h	516	682	115	243	695	705	1767	3267	297	1767	3059	474
Grp Volume(v), veh/h	332	0	0	382	0	0	28	445	454	200	513	516
Grp Sat Flow(s),veh/h/ln	1312	0	0	1643	0	0	1767	1763	1802	1767	1763	1770
Q Serve(g_s), s	1.7	0.0	0.0	0.0	0.0	0.0	0.8	11.4	11.4	5.0	12.5	12.5
Cycle Q Clear(g_c), s	12.7	0.0	0.0	11.0	0.0	0.0	0.8	11.4	11.4	5.0	12.5	12.5
Prop In Lane	0.46		0.09	0.20		0.43	1.00		0.17	1.00		0.27
Lane Grp Cap(c), veh/h	485	0	0	564	0	0	56	623	637	169	735	739
V/C Ratio(X)	0.68	0.00	0.00	0.68	0.00	0.00	0.50	0.71	0.71	1.18	0.70	0.70
Avail Cap(c_a), veh/h	555	0	0	644	0	0	169	623	637	169	735	739
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.3	0.0	0.0	16.9	0.0	0.0	24.9	14.6	14.6	23.7	12.5	12.5
Incr Delay (d2), s/veh	2.9	0.0	0.0	2.4	0.0	0.0	6.6	6.8	6.7	127.5	5.4	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	0.0	4.0	0.0	0.0	0.4	5.1	5.1	7.9	5.1	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.2	0.0	0.0	19.3	0.0	0.0	31.5	21.4	21.3	151.2	18.0	18.0
LnGrp LOS	C	A	A	B	A	A	C	C	C	F	B	B
Approach Vol, veh/h		332			382			927			1229	
Approach Delay, s/veh		20.2			19.3			21.7			39.6	
Approach LOS		C			B			C			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.5	23.0		19.8	6.2	26.3		19.8
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.0	18.5		18.0	5.0	18.5		18.0
Max Q Clear Time (g_c+I1), s	7.0	13.4		14.7	2.8	14.5		13.0
Green Ext Time (p_c), s	0.0	2.5		0.7	0.0	2.3		1.1

Intersection Summary	
HCM 6th Ctrl Delay	28.9
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	21.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	385	56	32	315	53	23	21	42	63	29	40
Future Vol, veh/h	51	385	56	32	315	53	23	21	42	63	29	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	55	418	61	35	342	58	25	23	46	68	32	43
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay	28.1	17.5	11.2	12.2
HCM LOS	D	C	B	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	27%	10%	9%	0%	48%
Vol Thru, %	24%	78%	91%	0%	22%
Vol Right, %	49%	11%	0%	100%	30%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	86	492	347	53	132
LT Vol	23	51	32	0	63
Through Vol	21	385	315	0	29
RT Vol	42	56	0	53	40
Lane Flow Rate	93	535	377	58	143
Geometry Grp	2	5	7	7	2
Degree of Util (X)	0.175	0.813	0.635	0.085	0.268
Departure Headway (Hd)	6.752	5.476	6.064	5.306	6.73
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	534	658	592	669	537
Service Time	4.76	3.555	3.849	3.09	4.73
HCM Lane V/C Ratio	0.174	0.813	0.637	0.087	0.266
HCM Control Delay	11.2	28.1	18.9	8.6	12.2
HCM Lane LOS	B	D	C	A	B
HCM 95th-tile Q	0.6	8.4	4.5	0.3	1.1

Intersection	
Int Delay, s/veh	170.4

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	259	0	164	0	0	0	0	709	75	195	682	0
Future Vol, veh/h	259	0	164	0	0	0	0	709	75	195	682	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	22355	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	282	0	178	0	0	0	0	771	82	212	741	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1551	2018	371	-	0	0	853	0	0
Stage 1	1165	1165	-	-	-	-	-	-	-
Stage 2	386	853	-	-	-	-	-	-	-
Critical Hdwy	6.86	6.56	6.96	-	-	-	4.16	-	-
Critical Hdwy Stg 1	5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	-	-	-	2.23	-	-
Pot Cap-1 Maneuver	~ 103	57	623	0	-	-	776	-	0
Stage 1	~ 257	264	-	0	-	-	-	-	0
Stage 2	654	371	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	~ 75	0	623	-	-	-	776	-	-
Mov Cap-2 Maneuver	~ 75	0	-	-	-	-	-	-	-
Stage 1	~ 257	0	-	-	-	-	-	-	-
Stage 2	475	0	-	-	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	$ 834.4	0	2.5
HCM LOS	F		

Minor Lane/Major Mvmt	NET	NER	SELn1	SELn2	SWL	SWT
Capacity (veh/h)	-	-	75	623	776	-
HCM Lane V/C Ratio	-	-	3.754	0.286	0.273	-
HCM Control Delay (s)	-		$ 1354.4	13.1	11.4	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	29.4	1.2	1.1	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	15

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	65	2	212	118	848	0	0	813	294
Future Vol, veh/h	0	0	0	65	2	212	118	848	0	0	813	294
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	71	2	230	128	922	0	0	884	320

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	1620	2382	461	1204	0	-	-	-	0
Stage 1	1178	1178	-	-	-	-	-	-	-
Stage 2	442	1204	-	-	-	-	-	-	-
Critical Hdwy	6.86	6.56	6.96	4.16	-	-	-	-	-
Critical Hdwy Stg 1	5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	2.23	-	-	-	-	-
Pot Cap-1 Maneuver	93	33	545	570	-	0	0	-	-
Stage 1	253	261	-	-	-	0	0	-	-
Stage 2	612	253	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	~ 50	0	545	570	-	-	-	-	-
Mov Cap-2 Maneuver	~ 50	0	-	-	-	-	-	-	-
Stage 1	137	0	-	-	-	-	-	-	-
Stage 2	612	0	-	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	113.3	3.7	0
HCM LOS	F		

Minor Lane/Major Mvmt	NEL	NET	NWLn1	NWLn2	SWT	SWR
Capacity (veh/h)	570	-	50	545	-	-
HCM Lane V/C Ratio	0.225	-	1.457	0.423	-	-
HCM Control Delay (s)	13.1	2.4	$ 420	16.4	-	-
HCM Lane LOS	B	A	F	C	-	-
HCM 95th %tile Q(veh)	0.9	-	6.8	2.1	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	901	159	162	952	0	0	0	206	436	80	209
Future Volume (veh/h)	0	901	159	162	952	0	0	0	206	436	80	209
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1856	1856	1856	1856	0	0	0	1856	1856	1856	1856
Adj Flow Rate, veh/h	0	979	173	176	1035	0	0	0	224	474	87	227
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	3	3	3	3	0	0	0	3	3	3	3
Cap, veh/h	0	1122	500	177	1763	0	0	0	0	1153	624	529
Arrive On Green	0.00	0.32	0.32	0.10	0.50	0.00	0.00	0.00	0.00	0.34	0.34	0.34
Sat Flow, veh/h	0	3618	1572	1767	3618	0		0		3428	1856	1572
Grp Volume(v), veh/h	0	979	173	176	1035	0		0.0		474	87	227
Grp Sat Flow(s),veh/h/ln	0	1763	1572	1767	1763	0				1714	1856	1572
Q Serve(g_s), s	0.0	14.4	4.6	5.5	11.4	0.0				5.9	1.8	6.2
Cycle Q Clear(g_c), s	0.0	14.4	4.6	5.5	11.4	0.0				5.9	1.8	6.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1122	500	177	1763	0				1153	624	529
V/C Ratio(X)	0.00	0.87	0.35	1.00	0.59	0.00				0.41	0.14	0.43
Avail Cap(c_a), veh/h	0	1154	515	177	1795	0				1153	624	529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	17.7	14.4	24.7	9.7	0.0				14.1	12.7	14.2
Incr Delay (d2), s/veh	0.0	7.4	0.4	66.4	0.5	0.0				1.1	0.5	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.3	1.5	5.4	3.6	0.0				2.2	0.7	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.1	14.8	91.2	10.2	0.0				15.1	13.2	16.7
LnGrp LOS	A	C	B	F	B	A				B	B	B
Approach Vol, veh/h		1152			1211						788	
Approach Delay, s/veh		23.6			22.0						15.4	
Approach LOS		C			C						B	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		10.0	22.0		23.0		32.0					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		5.5	18.0		18.5		28.0					
Max Q Clear Time (g_c+I1), s		7.5	16.4		8.2		13.4					
Green Ext Time (p_c), s		0.0	1.1		2.4		6.5					

Intersection Summary	
HCM 6th Ctrl Delay	20.9
HCM 6th LOS	C

Intersection	
Intersection Delay, s/veh	5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	0	1643	1029	384	0	0
Future Vol, veh/h	0	1643	1029	384	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	1786	1118	417	0	0
Number of Lanes	0	2	2	0	0	0

Approach	EB	WB
Opposing Approach	WB	EB
Opposing Lanes	2	2
Conflicting Approach Left		
Conflicting Lanes Left	0	0
Conflicting Approach Right		
Conflicting Lanes Right	0	0
HCM Control Delay	5	5
HCM LOS	A	A

Lane	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	47%
Vol Right, %	0%	0%	0%	53%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	822	822	686	727
LT Vol	0	0	0	0
Through Vol	822	822	686	343
RT Vol	0	0	0	384
Lane Flow Rate	893	893	746	790
Geometry Grp	0	0	0	0
Degree of Util (X)	0	0	0	0
Departure Headway (Hd)	0	0	0	0
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	0	0	0
Service Time	0	0	0	0
HCM Lane V/C Ratio	0	0	0	0
HCM Control Delay	5	5	5	5
HCM Lane LOS	N	N	N	N
HCM 95th-tile Q	0	0	0	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	309	986	310	174	827	166	183	300	196	93	389	436
Future Volume (veh/h)	309	986	310	174	827	166	183	300	196	93	389	436
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	336	1072	337	189	899	180	199	326	213	101	423	474
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	386	2218	989	463	1842	369	359	1043	465	253	1043	819
Arrive On Green	0.63	0.63	0.63	1.00	1.00	1.00	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	519	3526	1572	735	2927	586	1195	3526	1572	859	3526	2768
Grp Volume(v), veh/h	336	1072	337	189	541	538	199	326	213	101	423	474
Grp Sat Flow(s),veh/h/ln	519	1763	1572	367	1763	1750	597	1763	1572	859	1763	1384
Q Serve(g_s), s	75.5	19.4	12.1	13.4	0.0	0.0	19.2	8.6	13.2	12.4	11.5	17.5
Cycle Q Clear(g_c), s	75.5	19.4	12.1	32.9	0.0	0.0	30.7	8.6	13.2	21.0	11.5	17.5
Prop In Lane	1.00		1.00	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	386	2218	989	463	1109	1101	359	1043	465	253	1043	819
V/C Ratio(X)	0.87	0.48	0.34	0.41	0.49	0.49	0.55	0.31	0.46	0.40	0.41	0.58
Avail Cap(c_a), veh/h	386	2218	989	463	1109	1101	359	1043	465	253	1043	819
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.3	11.9	10.5	4.2	0.0	0.0	46.1	32.8	34.4	40.9	33.8	35.9
Incr Delay (d2), s/veh	22.5	0.8	0.9	2.7	1.5	1.5	6.1	0.8	3.2	4.7	1.2	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	7.5	4.3	0.8	0.5	0.5	3.1	3.7	5.3	2.9	5.1	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.8	12.6	11.4	6.9	1.5	1.5	52.2	33.6	37.6	45.6	35.0	38.9
LnGrp LOS	D	B	B	A	A	A	D	C	D	D	C	D
Approach Vol, veh/h		1745			1268			738			998	
Approach Delay, s/veh		18.8			2.3			39.8			37.9	
Approach LOS		B			A			D			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	40.0	80.0	40.0	80.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	35.5	75.5	35.5	75.5
Max Q Clear Time (g_c+I1), s	32.7	77.5	23.0	34.9
Green Ext Time (p_c), s	1.2	0.0	4.4	15.5

Intersection Summary	
HCM 6th Ctrl Delay	21.7
HCM 6th LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1169	0	0	903	251	85
Future Volume (veh/h)	1169	0	0	903	251	85
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	0	0	1856	1856	1856
Adj Flow Rate, veh/h	1271	0	0	982	273	92
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	0	0	3	3	3
Cap, veh/h	1719	0	0	1719	773	688
Arrive On Green	0.98	0.00	0.00	0.49	0.44	0.44
Sat Flow, veh/h	3711	0	0	3711	1767	1572
Grp Volume(v), veh/h	1271	0	0	982	273	92
Grp Sat Flow(s),veh/h/ln	1763	0	0	1763	1767	1572
Q Serve(g_s), s	3.9	0.0	0.0	23.7	12.3	4.2
Cycle Q Clear(g_c), s	3.9	0.0	0.0	23.7	12.3	4.2
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	1719	0	0	1719	773	688
V/C Ratio(X)	0.74	0.00	0.00	0.57	0.35	0.13
Avail Cap(c_a), veh/h	1719	0	0	1719	773	688
HCM Platoon Ratio	2.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.8	0.0	0.0	21.8	22.5	20.2
Incr Delay (d2), s/veh	2.9	0.0	0.0	1.4	1.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	10.0	5.4	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.7	0.0	0.0	23.2	23.7	20.6
LnGrp LOS	A	A	A	C	C	C
Approach Vol, veh/h	1271			982	365	
Approach Delay, s/veh	3.7			23.2	22.9	
Approach LOS	A			C	C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	57.0	63.0	63.0
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	52.5	58.5	58.5
Max Q Clear Time (g_c+I1), s	14.3	5.9	25.7
Green Ext Time (p_c), s	1.2	13.8	8.5

Intersection Summary	
HCM 6th Ctrl Delay	13.7
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	30.6
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	337	70	124	305	34	74	56	105	42	50	14
Future Vol, veh/h	14	337	70	124	305	34	74	56	105	42	50	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	15	366	76	135	332	37	80	61	114	46	54	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	30.9	40.6	17.8	13.6
HCM LOS	D	E	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	31%	3%	27%	46%	0%
Vol Thru, %	24%	80%	66%	54%	0%
Vol Right, %	45%	17%	7%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	235	421	463	92	14
LT Vol	74	14	124	42	0
Through Vol	56	337	305	50	0
RT Vol	105	70	34	0	14
Lane Flow Rate	255	458	503	100	15
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.517	0.806	0.886	0.239	0.032
Departure Headway (Hd)	7.28	6.446	6.446	8.595	7.634
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	498	567	564	420	471
Service Time	5.28	4.446	4.446	6.311	5.349
HCM Lane V/C Ratio	0.512	0.808	0.892	0.238	0.032
HCM Control Delay	17.8	30.9	40.6	14	10.6
HCM Lane LOS	C	D	E	B	B
HCM 95th-tile Q	2.9	7.9	10.2	0.9	0.1

Queues
3: Highland Avenue & Nebraska Avenue

12/22/2022

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	159	176	25	519	30	421
v/c Ratio	0.45	0.41	0.11	0.26	0.14	0.21
Control Delay	17.4	12.4	19.7	7.8	19.9	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.4	12.4	19.7	7.8	19.9	7.4
Queue Length 50th (ft)	27	20	5	26	5	20
Queue Length 95th (ft)	81	70	25	94	29	75
Internal Link Dist (ft)	2546	658		998		2588
Turn Bay Length (ft)			200		125	
Base Capacity (vph)	653	769	221	1987	221	1979
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.23	0.11	0.26	0.14	0.21

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	330	55	63	434	79	196	35	89
v/c Ratio	0.42	0.11	0.31	0.38	0.14	0.15	0.05	0.12
Control Delay	20.4	0.5	29.6	13.9	0.5	14.1	14.9	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	0.5	29.6	13.9	0.5	14.1	14.9	0.5
Queue Length 50th (ft)	54	0	21	56	0	24	8	0
Queue Length 95th (ft)	87	0	56	86	0	49	27	3
Internal Link Dist (ft)	1969			444			1175	
Turn Bay Length (ft)			150					
Base Capacity (vph)	1331	704	203	2071	560	1327	720	719
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.08	0.31	0.21	0.14	0.15	0.05	0.12

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	123	391	80	100	576	77	113	65	21	207	191
v/c Ratio	0.26	0.18	0.08	0.09	0.27	0.12	0.11	0.13	0.06	0.20	0.20
Control Delay	11.6	9.5	2.1	2.7	2.4	31.6	31.2	8.1	30.9	32.3	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.6	9.5	2.1	2.7	2.4	31.6	31.2	8.1	30.9	32.3	4.9
Queue Length 50th (ft)	39	62	0	3	16	22	33	0	12	63	0
Queue Length 95th (ft)	73	84	18	7	27	42	56	33	32	95	29
Internal Link Dist (ft)		56			449		2870			811	
Turn Bay Length (ft)			50			175		75	100		100
Base Capacity (vph)	474	2205	1016	1152	2166	640	1036	509	371	1036	950
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.18	0.08	0.09	0.27	0.12	0.11	0.13	0.06	0.20	0.20

Intersection Summary

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	402	505	187	48
v/c Ratio	0.24	0.30	0.24	0.07
Control Delay	15.5	19.0	22.3	10.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	15.5	19.0	22.3	10.2
Queue Length 50th (ft)	67	119	89	8
Queue Length 95th (ft)	93	157	142	31
Internal Link Dist (ft)	449	2154	977	
Turn Bay Length (ft)				30
Base Capacity (vph)	1708	1708	766	702
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.24	0.30	0.24	0.07

Intersection Summary

Queues
3: Highland Avenue & Nebraska Avenue

12/22/2022

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	206	208	17	553	96	640
v/c Ratio	0.63	0.50	0.09	0.32	0.51	0.30
Control Delay	24.8	15.6	23.1	11.7	35.0	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.8	15.6	23.1	11.7	35.0	8.0
Queue Length 50th (ft)	50	36	4	56	27	39
Queue Length 95th (ft)	103	81	21	108	#88	125
Internal Link Dist (ft)	2546	658		998		2588
Turn Bay Length (ft)			200		125	
Base Capacity (vph)	514	645	189	1725	189	2118
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.32	0.09	0.32	0.51	0.30

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBL	WBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	605	108	110	640	139	288	54	141
v/c Ratio	0.65	0.20	0.64	0.47	0.34	0.26	0.09	0.22
Control Delay	23.9	1.8	49.6	14.3	2.2	18.0	17.6	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.9	1.8	49.6	14.3	2.2	18.0	17.6	3.1
Queue Length 50th (ft)	110	0	43	88	0	45	16	0
Queue Length 95th (ft)	159	11	#119	128	0	74	39	24
Internal Link Dist (ft)	1969			444			1175	
Turn Bay Length (ft)			150					
Base Capacity (vph)	1129	624	172	1757	413	1126	611	637
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.17	0.64	0.36	0.34	0.26	0.09	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	209	666	199	114	671	116	198	129	63	258	295
v/c Ratio	0.50	0.30	0.19	0.14	0.31	0.20	0.19	0.23	0.19	0.25	0.29
Control Delay	17.0	10.6	3.5	2.3	1.9	32.8	32.2	6.4	33.4	32.9	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.0	10.6	3.5	2.3	1.9	32.8	32.2	6.4	33.4	32.9	4.3
Queue Length 50th (ft)	81	115	17	3	15	34	60	0	36	80	0
Queue Length 95th (ft)	150	147	46	6	21	59	92	45	75	116	35
Internal Link Dist (ft)		56			449		2870			811	
Turn Bay Length (ft)			50			175		75	100		100
Base Capacity (vph)	421	2205	1037	821	2163	584	1036	554	335	1036	1024
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.30	0.19	0.14	0.31	0.20	0.19	0.23	0.19	0.25	0.29

Intersection Summary

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	788	607	170	58
v/c Ratio	0.46	0.36	0.22	0.08
Control Delay	17.2	19.8	22.0	5.3
Queue Delay	0.2	0.0	0.0	0.0
Total Delay	17.4	19.8	22.0	5.3
Queue Length 50th (ft)	141	148	80	0
Queue Length 95th (ft)	177	192	129	25
Internal Link Dist (ft)	449	2154	977	
Turn Bay Length (ft)				
Base Capacity (vph)	1708	1708	766	718
Starvation Cap Reductn	299	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.56	0.36	0.22	0.08

Intersection Summary

Queues
3: Highland Avenue & Nebraska Avenue

12/22/2022

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	159	208	25	522	48	421
v/c Ratio	0.52	0.49	0.12	0.27	0.23	0.21
Control Delay	21.2	13.9	21.4	9.0	22.6	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.2	13.9	21.4	9.0	22.6	7.1
Queue Length 50th (ft)	27	22	5	26	9	20
Queue Length 95th (ft)	83	77	25	95	40	75
Internal Link Dist (ft)	2546	658		998		2588
Turn Bay Length (ft)			200		125	
Base Capacity (vph)	571	746	212	1925	212	2049
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.28	0.12	0.27	0.23	0.21

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	333	55	63	437	79	199	35	89
v/c Ratio	0.42	0.11	0.31	0.38	0.14	0.15	0.05	0.12
Control Delay	20.3	0.5	29.9	13.8	0.5	14.3	15.2	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.3	0.5	29.9	13.8	0.5	14.3	15.2	0.5
Queue Length 50th (ft)	55	0	21	56	0	25	8	0
Queue Length 95th (ft)	87	0	57	86	0	51	28	2
Internal Link Dist (ft)	1969			444			1175	
Turn Bay Length (ft)			150					
Base Capacity (vph)	1327	703	202	2065	557	1323	718	717
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.08	0.31	0.21	0.14	0.15	0.05	0.12

Intersection Summary

Queues
9: Highland Avenue & Floral Ave

12/22/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	14	391	86	102	576	91	117	68	21	210	191
v/c Ratio	0.03	0.18	0.08	0.09	0.27	0.14	0.11	0.13	0.06	0.20	0.20
Control Delay	8.7	9.5	2.0	2.7	2.4	31.9	31.2	8.0	30.9	32.3	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.7	9.5	2.0	2.7	2.4	31.9	31.2	8.0	30.9	32.3	4.9
Queue Length 50th (ft)	4	62	0	4	16	26	34	0	12	64	0
Queue Length 95th (ft)	12	84	19	8	27	48	58	34	32	96	29
Internal Link Dist (ft)		56			449		2870			811	
Turn Bay Length (ft)			50			175		75	100		100
Base Capacity (vph)	474	2205	1018	1152	2166	637	1036	511	370	1036	950
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.18	0.08	0.09	0.27	0.14	0.11	0.13	0.06	0.20	0.20

Intersection Summary

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	405	508	187	48
v/c Ratio	0.24	0.30	0.24	0.07
Control Delay	15.5	19.0	22.3	5.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	15.5	19.0	22.3	5.8
Queue Length 50th (ft)	67	120	89	0
Queue Length 95th (ft)	93	158	142	23
Internal Link Dist (ft)	449	2154	977	
Turn Bay Length (ft)				
Base Capacity (vph)	1708	1708	766	713
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.24	0.30	0.24	0.07

Intersection Summary

Queues
3: Highland Avenue & Nebraska Avenue

12/22/2022

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	206	254	17	562	142	640
v/c Ratio	0.68	0.57	0.09	0.43	0.79	0.34
Control Delay	27.7	16.1	23.3	13.0	59.3	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.7	16.1	23.3	13.0	59.3	8.5
Queue Length 50th (ft)	51	42	5	57	41	40
Queue Length 95th (ft)	105	94	21	111	#136	125
Internal Link Dist (ft)	2546	658		998		2588
Turn Bay Length (ft)			200		125	
Base Capacity (vph)	456	629	179	1320	179	1863
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.40	0.09	0.43	0.79	0.34

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBL	WBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	611	108	110	645	139	299	54	141
v/c Ratio	0.66	0.20	0.64	0.47	0.34	0.27	0.09	0.22
Control Delay	24.0	1.8	49.7	14.4	2.3	18.1	17.6	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	1.8	49.7	14.4	2.3	18.1	17.6	3.1
Queue Length 50th (ft)	111	0	44	89	0	47	16	0
Queue Length 95th (ft)	161	11	#119	129	0	77	39	24
Internal Link Dist (ft)	1969			444			1175	
Turn Bay Length (ft)			150					
Base Capacity (vph)	1129	624	172	1756	406	1125	610	636
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.17	0.64	0.37	0.34	0.27	0.09	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
9: Highland Avenue & Floral Ave

12/22/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	209	666	216	120	671	128	205	134	63	266	295
v/c Ratio	0.50	0.30	0.21	0.15	0.31	0.22	0.20	0.24	0.19	0.26	0.29
Control Delay	17.0	10.6	3.6	2.3	1.9	33.2	32.2	6.3	33.5	33.0	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.0	10.6	3.6	2.3	1.9	33.2	32.2	6.3	33.5	33.0	4.3
Queue Length 50th (ft)	81	115	19	3	15	38	62	0	36	82	0
Queue Length 95th (ft)	150	147	49	6	21	64	94	46	75	119	35
Internal Link Dist (ft)		56			449		2870			811	
Turn Bay Length (ft)			50			175		75	100		100
Base Capacity (vph)	421	2205	1041	821	2163	575	1036	558	331	1036	1024
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.30	0.21	0.15	0.31	0.22	0.20	0.24	0.19	0.26	0.29

Intersection Summary

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	791	612	170	58
v/c Ratio	0.46	0.36	0.22	0.08
Control Delay	17.2	19.9	22.0	5.3
Queue Delay	0.2	0.0	0.0	0.0
Total Delay	17.4	19.9	22.0	5.3
Queue Length 50th (ft)	142	150	80	0
Queue Length 95th (ft)	178	194	129	25
Internal Link Dist (ft)	449	2154	977	
Turn Bay Length (ft)				
Base Capacity (vph)	1708	1708	766	718
Starvation Cap Reductn	299	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.56	0.36	0.22	0.08

Intersection Summary

Queues
3: Highland Avenue & Nebraska Avenue

12/22/2022

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	343	270	32	534	58	457
v/c Ratio	0.82	0.48	0.18	0.40	0.32	0.31
Control Delay	36.1	13.7	25.6	13.5	28.3	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.1	13.7	25.6	13.5	28.3	11.0
Queue Length 50th (ft)	99	49	10	68	18	36
Queue Length 95th (ft)	#230	106	31	106	48	86
Internal Link Dist (ft)	2546	658		998		2588
Turn Bay Length (ft)			200		125	
Base Capacity (vph)	473	635	181	1338	181	1453
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.43	0.18	0.40	0.32	0.31

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBL	WBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	339	57	64	446	80	227	36	91
v/c Ratio	0.42	0.12	0.32	0.39	0.15	0.17	0.05	0.13
Control Delay	20.2	0.5	30.1	13.9	0.6	14.4	15.2	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	0.5	30.1	13.9	0.6	14.4	15.2	0.6
Queue Length 50th (ft)	56	0	21	57	0	28	9	0
Queue Length 95th (ft)	90	0	57	88	0	57	28	4
Internal Link Dist (ft)	1969			444			1175	
Turn Bay Length (ft)			150					
Base Capacity (vph)	1323	701	201	2059	533	1319	716	716
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.08	0.32	0.22	0.15	0.17	0.05	0.13

Intersection Summary

Queues
9: Highland Avenue & Floral Ave

12/22/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	125	399	112	109	588	161	132	82	21	218	196
v/c Ratio	0.27	0.18	0.11	0.10	0.27	0.26	0.13	0.16	0.06	0.21	0.21
Control Delay	11.8	9.6	1.8	2.7	2.4	33.6	31.4	7.4	31.0	32.4	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.8	9.6	1.8	2.7	2.4	33.6	31.4	7.4	31.0	32.4	4.8
Queue Length 50th (ft)	40	63	0	4	16	48	39	0	12	66	0
Queue Length 95th (ft)	75	86	21	8	27	78	64	38	32	99	30
Internal Link Dist (ft)		56			449		2870			811	
Turn Bay Length (ft)			50			175		75	100		100
Base Capacity (vph)	467	2205	1028	1141	2166	628	1036	521	364	1036	954
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.18	0.11	0.10	0.27	0.26	0.13	0.16	0.06	0.21	0.21

Intersection Summary

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	426	522	190	49
v/c Ratio	0.25	0.31	0.25	0.07
Control Delay	15.6	19.1	22.4	5.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	15.6	19.1	22.4	5.7
Queue Length 50th (ft)	72	124	91	0
Queue Length 95th (ft)	100	163	144	23
Internal Link Dist (ft)	449	2154	977	
Turn Bay Length (ft)				
Base Capacity (vph)	1708	1708	766	713
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.25	0.31	0.25	0.07

Intersection Summary

Queues
3: Highland Avenue & Nebraska Avenue

12/22/2022

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	331	378	38	581	172	747
v/c Ratio	0.96	0.69	0.24	0.49	1.07	0.48
Control Delay	61.2	21.7	27.2	15.5	123.5	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.2	21.7	27.2	15.5	123.5	12.0
Queue Length 50th (ft)	100	88	12	74	~66	63
Queue Length 95th (ft)	#243	#179	35	114	#165	142
Internal Link Dist (ft)	2546	658		998		2588
Turn Bay Length (ft)			200		125	
Base Capacity (vph)	356	563	160	1188	160	1548
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.67	0.24	0.49	1.07	0.48

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBL	WBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	623	110	112	658	142	383	55	145
v/c Ratio	0.67	0.20	0.65	0.48	0.39	0.34	0.09	0.23
Control Delay	24.2	1.9	50.8	14.5	3.4	18.7	17.7	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.2	1.9	50.8	14.5	3.4	18.7	17.7	3.4
Queue Length 50th (ft)	113	0	44	91	0	62	16	0
Queue Length 95th (ft)	164	11	#122	132	4	97	40	26
Internal Link Dist (ft)	1969			444			1175	
Turn Bay Length (ft)			150					
Base Capacity (vph)	1126	623	172	1751	368	1122	609	636
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.18	0.65	0.38	0.39	0.34	0.09	0.23

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
9: Highland Avenue & Floral Ave

12/22/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	213	679	297	137	684	178	218	146	64	287	300
v/c Ratio	0.51	0.31	0.28	0.17	0.32	0.32	0.21	0.26	0.20	0.28	0.29
Control Delay	17.7	10.7	3.8	2.4	1.9	34.9	32.4	6.2	33.7	33.3	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.7	10.7	3.8	2.4	1.9	34.9	32.4	6.2	33.7	33.3	4.3
Queue Length 50th (ft)	84	118	27	4	15	55	66	0	37	90	0
Queue Length 95th (ft)	157	151	63	7	21	88	99	48	75	127	35
Internal Link Dist (ft)		56			449		2870			811	
Turn Bay Length (ft)			50			175		75	100		100
Base Capacity (vph)	414	2205	1061	808	2163	553	1036	566	324	1036	1027
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.31	0.28	0.17	0.32	0.32	0.21	0.26	0.20	0.28	0.29

Intersection Summary

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	815	640	173	59
v/c Ratio	0.48	0.37	0.23	0.08
Control Delay	17.4	20.1	22.1	5.3
Queue Delay	0.2	0.0	0.0	0.0
Total Delay	17.6	20.1	22.1	5.3
Queue Length 50th (ft)	147	158	82	0
Queue Length 95th (ft)	184	204	132	25
Internal Link Dist (ft)	449	2154	977	
Turn Bay Length (ft)				
Base Capacity (vph)	1708	1708	766	719
Starvation Cap Reductn	290	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.57	0.37	0.23	0.08

Intersection Summary

Queues
3: Highland Avenue & Nebraska Avenue

12/22/2022

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	255	282	40	834	49	677
v/c Ratio	0.69	0.55	0.20	0.56	0.24	0.46
Control Delay	26.4	15.6	24.4	13.6	25.1	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.4	15.6	24.4	13.6	25.1	12.2
Queue Length 50th (ft)	48	40	9	65	11	49
Queue Length 95th (ft)	#157	118	37	176	42	136
Internal Link Dist (ft)	2546	658		998		2588
Turn Bay Length (ft)			200		125	
Base Capacity (vph)	505	693	201	1482	201	1479
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.41	0.20	0.56	0.24	0.46

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBL	WBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	532	89	101	698	127	315	55	143
v/c Ratio	0.59	0.17	0.58	0.52	0.31	0.28	0.09	0.22
Control Delay	22.9	0.8	45.2	15.0	2.0	17.8	17.4	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.9	0.8	45.2	15.0	2.0	17.8	17.4	3.2
Queue Length 50th (ft)	94	0	38	98	0	46	15	0
Queue Length 95th (ft)	138	2	#108	141	0	80	40	25
Internal Link Dist (ft)	1969			444			1175	
Turn Bay Length (ft)			150					
Base Capacity (vph)	1137	627	173	1769	410	1133	615	640
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.14	0.58	0.39	0.31	0.28	0.09	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	198	629	129	161	926	124	182	105	34	333	308
v/c Ratio	0.66	0.29	0.13	0.19	0.43	0.24	0.18	0.20	0.10	0.32	0.30
Control Delay	27.2	10.5	3.2	4.5	4.9	33.7	32.0	6.8	31.8	33.9	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.2	10.5	3.2	4.5	5.1	33.7	32.0	6.8	31.8	33.9	4.2
Queue Length 50th (ft)	90	107	9	8	41	37	55	0	19	105	0
Queue Length 95th (ft)	203	138	33	17	72	64	85	41	46	146	35
Internal Link Dist (ft)		56			449		2870			811	
Turn Bay Length (ft)			50			175		75	100		100
Base Capacity (vph)	300	2205	1021	862	2166	507	1036	537	345	1036	1033
Starvation Cap Reductn	0	0	0	0	482	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.29	0.13	0.19	0.55	0.24	0.18	0.20	0.10	0.32	0.30

Intersection Summary

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	647	813	301	77
v/c Ratio	0.38	0.48	0.39	0.11
Control Delay	16.4	21.7	24.9	4.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	16.4	21.7	24.9	4.7
Queue Length 50th (ft)	109	214	155	0
Queue Length 95th (ft)	140	269	229	28
Internal Link Dist (ft)	449	2154	977	
Turn Bay Length (ft)				
Base Capacity (vph)	1708	1708	766	729
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.38	0.48	0.39	0.11

Intersection Summary

Queues
3: Highland Avenue & Nebraska Avenue

12/22/2022

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	332	382	28	899	200	1029
v/c Ratio	0.95	0.72	0.17	0.76	1.24	0.66
Control Delay	59.6	22.7	25.9	20.9	181.0	16.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.6	22.7	25.9	20.9	181.0	16.7
Queue Length 50th (ft)	100	85	9	132	~85	108
Queue Length 95th (ft)	#242	#200	28	193	#191	#266
Internal Link Dist (ft)	2546	658		998		2588
Turn Bay Length (ft)			200		125	
Base Capacity (vph)	361	546	161	1188	161	1548
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.70	0.17	0.76	1.24	0.66

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBL	WBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	979	173	176	1035	224	474	87	227
v/c Ratio	1.01	0.31	1.19	0.69	0.73	0.49	0.17	0.37
Control Delay	57.3	5.0	166.2	17.9	23.0	21.4	18.6	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.3	5.0	166.2	17.9	23.0	21.4	18.6	5.0
Queue Length 50th (ft)	~206	0	~86	166	9	79	26	0
Queue Length 95th (ft)	#330	39	#195	230	#98	120	57	44
Internal Link Dist (ft)	1969			444			1175	
Turn Bay Length (ft)			150					
Base Capacity (vph)	970	561	148	1509	307	967	525	608
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.01	0.31	1.19	0.69	0.73	0.49	0.17	0.37

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	336	1072	337	189	1079	199	326	213	101	423	474
v/c Ratio	1.39	0.49	0.32	0.40	0.50	0.47	0.31	0.39	0.38	0.41	0.46
Control Delay	222.0	12.8	6.5	5.8	3.8	39.0	33.8	17.5	38.7	35.3	14.0
Queue Delay	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	222.0	12.8	6.5	5.8	4.1	39.0	33.8	17.5	38.7	35.3	14.0
Queue Length 50th (ft)	~346	217	59	7	32	64	103	57	62	137	59
Queue Length 95th (ft)	#345	266	107	15	61	103	144	126	117	186	113
Internal Link Dist (ft)		56			449		2870			811	
Turn Bay Length (ft)			50			175		75	100		100
Base Capacity (vph)	242	2205	1040	475	2163	422	1036	544	265	1036	1023
Starvation Cap Reductn	0	0	0	0	443	0	0	0	0	0	0
Spillback Cap Reductn	0	5	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.39	0.49	0.32	0.40	0.63	0.47	0.31	0.39	0.38	0.41	0.46

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	1271	982	273	92
v/c Ratio	0.74	0.57	0.36	0.13
Control Delay	20.5	23.6	24.2	13.9
Queue Delay	0.2	0.0	0.0	0.0
Total Delay	20.7	23.6	24.2	13.9
Queue Length 50th (ft)	250	276	138	27
Queue Length 95th (ft)	290	342	207	60
Internal Link Dist (ft)	449	2154	977	
Turn Bay Length (ft)				
Base Capacity (vph)	1708	1708	766	704
Starvation Cap Reductn	63	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.77	0.57	0.36	0.13

Intersection Summary

Queues
3: Highland Avenue & Nebraska Avenue

12/22/2022

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	255	315	40	837	66	677
v/c Ratio	0.74	0.60	0.21	0.60	0.35	0.45
Control Delay	31.5	17.2	25.9	15.4	28.5	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	17.2	25.9	15.4	28.5	12.2
Queue Length 50th (ft)	70	64	12	117	21	59
Queue Length 95th (ft)	#167	131	37	177	53	136
Internal Link Dist (ft)	2546	658		998		2588
Turn Bay Length (ft)			200		125	
Base Capacity (vph)	445	659	189	1399	189	1517
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.48	0.21	0.60	0.35	0.45

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBL	WBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	534	89	101	701	127	318	55	143
v/c Ratio	0.59	0.17	0.58	0.52	0.31	0.28	0.09	0.22
Control Delay	22.9	0.8	45.2	15.1	2.0	17.8	17.4	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.9	0.8	45.2	15.1	2.0	17.8	17.4	3.2
Queue Length 50th (ft)	94	0	38	99	0	47	15	0
Queue Length 95th (ft)	139	2	#108	142	0	81	40	25
Internal Link Dist (ft)	1969			444			1175	
Turn Bay Length (ft)			150					
Base Capacity (vph)	1137	627	173	1769	408	1133	615	640
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.14	0.58	0.40	0.31	0.28	0.09	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	198	629	135	161	926	139	186	109	34	336	308
v/c Ratio	0.66	0.29	0.13	0.19	0.43	0.28	0.18	0.20	0.10	0.32	0.30
Control Delay	27.2	10.5	3.2	4.5	4.9	34.2	32.0	6.7	31.8	34.0	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.2	10.5	3.2	4.5	5.1	34.2	32.0	6.7	31.8	34.0	4.2
Queue Length 50th (ft)	90	107	10	8	41	42	56	0	19	106	0
Queue Length 95th (ft)	203	138	34	17	71	71	86	42	46	148	35
Internal Link Dist (ft)		56			449		2870			811	
Turn Bay Length (ft)			50			175		75	100		100
Base Capacity (vph)	300	2205	1023	862	2166	504	1036	540	342	1036	1033
Starvation Cap Reductn	0	0	0	0	482	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.29	0.13	0.19	0.55	0.28	0.18	0.20	0.10	0.32	0.30

Intersection Summary

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	650	815	301	77
v/c Ratio	0.38	0.48	0.39	0.11
Control Delay	16.4	21.7	24.9	4.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	16.4	21.7	24.9	4.7
Queue Length 50th (ft)	110	215	155	0
Queue Length 95th (ft)	142	270	229	28
Internal Link Dist (ft)	449	2154	977	
Turn Bay Length (ft)				
Base Capacity (vph)	1708	1708	766	729
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.38	0.48	0.39	0.11

Intersection Summary

Queues
3: Highland Avenue & Nebraska Avenue

12/22/2022

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	332	382	28	899	200	1029
v/c Ratio	0.95	0.72	0.17	0.76	1.24	0.66
Control Delay	59.6	22.7	25.9	20.9	181.0	16.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.6	22.7	25.9	20.9	181.0	16.7
Queue Length 50th (ft)	100	85	9	132	~85	108
Queue Length 95th (ft)	#242	#200	28	193	#191	#266
Internal Link Dist (ft)	2546	658		998		2588
Turn Bay Length (ft)			200		125	
Base Capacity (vph)	361	546	161	1188	161	1548
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.70	0.17	0.76	1.24	0.66

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBL	WBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	979	173	176	1035	224	474	87	227
v/c Ratio	1.01	0.31	1.19	0.69	0.73	0.49	0.17	0.37
Control Delay	57.3	5.0	166.2	17.9	23.0	21.4	18.6	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.3	5.0	166.2	17.9	23.0	21.4	18.6	5.0
Queue Length 50th (ft)	~206	0	~86	166	9	79	26	0
Queue Length 95th (ft)	#330	39	#195	230	#98	120	57	44
Internal Link Dist (ft)	1969			444			1175	
Turn Bay Length (ft)			150					
Base Capacity (vph)	970	561	148	1509	307	967	525	608
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.01	0.31	1.19	0.69	0.73	0.49	0.17	0.37

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	336	1072	337	189	1079	199	326	213	101	423	474
v/c Ratio	1.39	0.49	0.32	0.40	0.50	0.47	0.31	0.39	0.38	0.41	0.46
Control Delay	222.0	12.8	6.5	5.8	3.8	39.0	33.8	17.5	38.7	35.3	14.0
Queue Delay	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	222.0	12.8	6.5	5.8	4.1	39.0	33.8	17.5	38.7	35.3	14.0
Queue Length 50th (ft)	~346	217	59	7	32	64	103	57	62	137	59
Queue Length 95th (ft)	#345	266	107	15	61	103	144	126	117	186	113
Internal Link Dist (ft)		56			449		2870			811	
Turn Bay Length (ft)			50			175		75	100		100
Base Capacity (vph)	242	2205	1040	475	2163	422	1036	544	265	1036	1023
Starvation Cap Reductn	0	0	0	0	443	0	0	0	0	0	0
Spillback Cap Reductn	0	5	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.39	0.49	0.32	0.40	0.63	0.47	0.31	0.39	0.38	0.41	0.46

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	WBT	NBL	NBR
Lane Group Flow (vph)	1271	982	273	92
v/c Ratio	0.74	0.57	0.36	0.13
Control Delay	20.5	23.6	24.2	13.9
Queue Delay	0.2	0.0	0.0	0.0
Total Delay	20.7	23.6	24.2	13.9
Queue Length 50th (ft)	250	276	138	27
Queue Length 95th (ft)	290	342	207	60
Internal Link Dist (ft)	449	2154	977	
Turn Bay Length (ft)				
Base Capacity (vph)	1708	1708	766	704
Starvation Cap Reductn	63	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.77	0.57	0.36	0.13

Intersection Summary

HCM 6th Signalized Intersection Summary
1: Highland Avenue & Rose Avenue

02/02/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	12	5	24	3	122	7	567	40	79	420	8
Future Volume (veh/h)	8	12	5	24	3	122	7	567	40	79	420	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	9	13	5	26	3	133	8	616	43	86	457	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	156	177	216	98	17	177	18	1841	128	117	2145	42
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.01	0.55	0.55	0.07	0.61	0.61
Sat Flow, veh/h	467	1286	1572	160	121	1288	1767	3343	233	1767	3536	70
Grp Volume(v), veh/h	22	0	5	162	0	0	8	324	335	86	228	238
Grp Sat Flow(s),veh/h/ln	1753	0	1572	1569	0	0	1767	1763	1814	1767	1763	1843
Q Serve(g_s), s	0.0	0.0	0.2	2.7	0.0	0.0	0.2	5.6	5.6	2.6	3.2	3.2
Cycle Q Clear(g_c), s	0.6	0.0	0.2	5.4	0.0	0.0	0.2	5.6	5.6	2.6	3.2	3.2
Prop In Lane	0.41		1.00	0.16		0.82	1.00		0.13	1.00		0.04
Lane Grp Cap(c), veh/h	333	0	216	292	0	0	18	971	998	117	1069	1118
V/C Ratio(X)	0.07	0.00	0.02	0.56	0.00	0.00	0.43	0.33	0.34	0.73	0.21	0.21
Avail Cap(c_a), veh/h	626	0	515	585	0	0	161	971	998	177	1069	1118
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.7	0.0	20.5	22.8	0.0	0.0	27.1	6.8	6.8	25.2	4.9	4.9
Incr Delay (d2), s/veh	0.1	0.0	0.0	1.7	0.0	0.0	15.2	0.9	0.9	8.5	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	2.0	0.0	0.0	0.2	1.6	1.6	1.2	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	0.0	20.6	24.4	0.0	0.0	42.2	7.7	7.7	33.6	5.3	5.3
LnGrp LOS	C	A	C	C	A	A	D	A	A	C	A	A
Approach Vol, veh/h		27			162			667			552	
Approach Delay, s/veh		20.7			24.4			8.1			9.7	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.2	34.8		12.1	5.1	37.9		12.1
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.5	18.0		18.0	5.0	18.5		18.0
Max Q Clear Time (g_c+I1), s	4.6	7.6		2.6	2.2	5.2		7.4
Green Ext Time (p_c), s	0.0	2.7		0.0	0.0	2.0		0.6

Intersection Summary	
HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
1: Highland Avenue & Rose Avenue

02/01/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	12	5	24	3	122	7	567	40	79	420	8
Future Volume (veh/h)	8	12	5	24	3	122	7	567	40	79	420	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	9	13	5	26	3	133	8	616	43	86	457	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	156	177	216	98	17	177	18	1841	128	117	2145	42
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.01	0.55	0.55	0.07	0.61	0.61
Sat Flow, veh/h	467	1286	1572	160	121	1288	1767	3343	233	1767	3536	70
Grp Volume(v), veh/h	22	0	5	162	0	0	8	324	335	86	228	238
Grp Sat Flow(s),veh/h/ln	1753	0	1572	1569	0	0	1767	1763	1814	1767	1763	1843
Q Serve(g_s), s	0.0	0.0	0.2	2.7	0.0	0.0	0.2	5.6	5.6	2.6	3.2	3.2
Cycle Q Clear(g_c), s	0.6	0.0	0.2	5.4	0.0	0.0	0.2	5.6	5.6	2.6	3.2	3.2
Prop In Lane	0.41		1.00	0.16		0.82	1.00		0.13	1.00		0.04
Lane Grp Cap(c), veh/h	333	0	216	292	0	0	18	971	998	117	1069	1118
V/C Ratio(X)	0.07	0.00	0.02	0.56	0.00	0.00	0.43	0.33	0.34	0.73	0.21	0.21
Avail Cap(c_a), veh/h	626	0	515	585	0	0	161	971	998	177	1069	1118
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.7	0.0	20.5	22.8	0.0	0.0	27.1	6.8	6.8	25.2	4.9	4.9
Incr Delay (d2), s/veh	0.1	0.0	0.0	1.7	0.0	0.0	15.2	0.9	0.9	8.5	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	2.0	0.0	0.0	0.2	1.6	1.6	1.2	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	0.0	20.6	24.4	0.0	0.0	42.2	7.7	7.7	33.6	5.3	5.3
LnGrp LOS	C	A	C	C	A	A	D	A	A	C	A	A
Approach Vol, veh/h		27			162			667			552	
Approach Delay, s/veh		20.7			24.4			8.1			9.7	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.2	34.8		12.1	5.1	37.9		12.1
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.5	18.0		18.0	5.0	18.5		18.0
Max Q Clear Time (g_c+I1), s	4.6	7.6		2.6	2.2	5.2		7.4
Green Ext Time (p_c), s	0.0	2.7		0.0	0.0	2.0		0.6

Intersection Summary	
HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
1: Highland Avenue & Rose Avenue

02/01/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	7	8	24	7	127	8	609	43	200	687	11
Future Volume (veh/h)	6	7	8	24	7	127	8	609	43	200	687	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	7	8	9	26	8	138	9	662	47	217	747	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	171	160	223	90	23	180	21	1614	114	264	2206	35
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.01	0.48	0.48	0.15	0.62	0.62
Sat Flow, veh/h	581	1127	1572	149	163	1265	1767	3339	237	1767	3551	57
Grp Volume(v), veh/h	15	0	9	172	0	0	9	349	360	217	371	388
Grp Sat Flow(s),veh/h/ln	1708	0	1572	1577	0	0	1767	1763	1813	1767	1763	1845
Q Serve(g_s), s	0.0	0.0	0.3	3.1	0.0	0.0	0.3	7.7	7.7	7.1	6.1	6.1
Cycle Q Clear(g_c), s	0.4	0.0	0.3	6.3	0.0	0.0	0.3	7.7	7.7	7.1	6.1	6.1
Prop In Lane	0.47		1.00	0.15		0.80	1.00		0.13	1.00		0.03
Lane Grp Cap(c), veh/h	331	0	223	293	0	0	21	852	876	264	1095	1147
V/C Ratio(X)	0.05	0.00	0.04	0.59	0.00	0.00	0.44	0.41	0.41	0.82	0.34	0.34
Avail Cap(c_a), veh/h	568	0	472	538	0	0	147	852	876	309	1095	1147
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	0.0	22.2	24.7	0.0	0.0	29.5	10.0	10.0	24.7	5.4	5.4
Incr Delay (d2), s/veh	0.1	0.0	0.1	1.9	0.0	0.0	14.0	1.5	1.4	14.1	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	2.3	0.0	0.0	0.2	2.5	2.6	3.7	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.3	0.0	22.3	26.6	0.0	0.0	43.5	11.4	11.4	38.9	6.3	6.2
LnGrp LOS	C	A	C	C	A	A	D	B	B	D	A	A
Approach Vol, veh/h		24			172			718			976	
Approach Delay, s/veh		22.3			26.6			11.8			13.5	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.5	33.5		13.0	5.2	41.8		13.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	10.5	18.0		18.0	5.0	23.5		18.0
Max Q Clear Time (g_c+I1), s	9.1	9.7		2.4	2.3	8.1		8.3
Green Ext Time (p_c), s	0.1	2.5		0.0	0.0	3.8		0.6

Intersection Summary			
HCM 6th Ctrl Delay			14.2
HCM 6th LOS			B

HCM 6th Signalized Intersection Summary
1: Highland Avenue & Rose Avenue

02/01/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	12	5	29	3	124	7	662	52	81	458	8
Future Volume (veh/h)	8	12	5	29	3	124	7	662	52	81	458	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	9	13	5	32	3	135	8	720	57	88	498	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	160	184	226	106	18	179	18	1799	142	119	2127	38
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.01	0.54	0.54	0.07	0.60	0.60
Sat Flow, veh/h	474	1279	1572	195	127	1243	1767	3309	262	1767	3543	64
Grp Volume(v), veh/h	22	0	5	170	0	0	8	383	394	88	248	259
Grp Sat Flow(s),veh/h/ln	1753	0	1572	1565	0	0	1767	1763	1808	1767	1763	1844
Q Serve(g_s), s	0.0	0.0	0.2	3.1	0.0	0.0	0.2	7.0	7.0	2.7	3.6	3.6
Cycle Q Clear(g_c), s	0.6	0.0	0.2	5.7	0.0	0.0	0.2	7.0	7.0	2.7	3.6	3.6
Prop In Lane	0.41		1.00	0.19		0.79	1.00		0.14	1.00		0.03
Lane Grp Cap(c), veh/h	344	0	226	303	0	0	18	958	983	119	1058	1107
V/C Ratio(X)	0.06	0.00	0.02	0.56	0.00	0.00	0.43	0.40	0.40	0.74	0.23	0.23
Avail Cap(c_a), veh/h	627	0	515	585	0	0	161	958	983	164	1058	1107
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.4	0.0	20.2	22.6	0.0	0.0	27.1	7.3	7.3	25.2	5.1	5.1
Incr Delay (d2), s/veh	0.1	0.0	0.0	1.6	0.0	0.0	15.2	1.2	1.2	10.9	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	2.0	0.0	0.0	0.2	2.0	2.0	1.3	0.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	0.0	20.3	24.2	0.0	0.0	42.2	8.6	8.5	36.0	5.6	5.6
LnGrp LOS	C	A	C	C	A	A	D	A	A	D	A	A
Approach Vol, veh/h		27			170			785			595	
Approach Delay, s/veh		20.4			24.2			8.9			10.1	
Approach LOS		C			C			A			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.2	34.4		12.4	5.1	37.5		12.4
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.1	18.4		18.0	5.0	18.5		18.0
Max Q Clear Time (g_c+I1), s	4.7	9.0		2.6	2.2	5.6		7.7
Green Ext Time (p_c), s	0.0	3.0		0.0	0.0	2.2		0.6

Intersection Summary			
HCM 6th Ctrl Delay			11.2
HCM 6th LOS			B

HCM 6th Signalized Intersection Summary
5: Second Street & SR 99 SB On Ramps/SR 99 SB Off Ramps

02/01/2023

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	147	0	52	0	0	0	0	503	84	98	344	0
Future Volume (veh/h)	147	0	52	0	0	0	0	503	84	98	344	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	160	0	57				0	547	91	107	374	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	766	0	682				0	738	122	136	1420	0
Arrive On Green	0.43	0.00	0.43				0.00	0.24	0.24	0.08	0.40	0.00
Sat Flow, veh/h	1767	0	1572				0	3119	502	1767	3618	0
Grp Volume(v), veh/h	160	0	57				0	318	320	107	374	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572				0	1763	1765	1767	1763	0
Q Serve(g_s), s	3.1	0.0	1.2				0.0	9.1	9.2	3.3	3.9	0.0
Cycle Q Clear(g_c), s	3.1	0.0	1.2				0.0	9.1	9.2	3.3	3.9	0.0
Prop In Lane	1.00		1.00				0.00		0.28	1.00		0.00
Lane Grp Cap(c), veh/h	766	0	682				0	430	430	136	1420	0
V/C Ratio(X)	0.21	0.00	0.08				0.00	0.74	0.74	0.78	0.26	0.00
Avail Cap(c_a), veh/h	766	0	682				0	577	578	177	1795	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.90	0.90	0.00
Uniform Delay (d), s/veh	9.7	0.0	9.2				0.0	19.2	19.2	24.9	11.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.2				0.0	3.4	3.5	14.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.4				0.0	3.8	3.8	1.8	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.3	0.0	9.4				0.0	22.6	22.8	39.3	11.1	0.0
LnGrp LOS	B	A	A				A	C	C	D	B	A
Approach Vol, veh/h		217						638			481	
Approach Delay, s/veh		10.1						22.7			17.3	
Approach LOS		B						C			B	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		8.7	17.9		28.3		26.7					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		5.5	18.0		18.0		28.0					
Max Q Clear Time (g_c+I1), s		5.3	11.2		5.1		5.9					
Green Ext Time (p_c), s		0.0	2.2		0.8		2.4					

Intersection Summary	
HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	53	0	115	134	506	0	0	391	151
Future Volume (veh/h)	0	0	0	53	0	115	134	506	0	0	391	151
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				58	0	125	146	550	0	0	425	164
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				753	0	670	245	856	0	0	933	356
Arrive On Green				0.43	0.00	0.43	0.37	0.37	0.00	0.00	0.37	0.37
Sat Flow, veh/h				1767	0	1572	345	2375	0	0	2587	953
Grp Volume(v), veh/h				58	0	125	328	368	0	0	299	290
Grp Sat Flow(s),veh/h/ln				1767	0	1572	1031	1604	0	0	1763	1684
Q Serve(g_s), s				0.9	0.0	2.2	7.9	8.4	0.0	0.0	5.8	5.9
Cycle Q Clear(g_c), s				0.9	0.0	2.2	13.8	8.4	0.0	0.0	5.8	5.9
Prop In Lane				1.00		1.00	0.45		0.00	0.00		0.57
Lane Grp Cap(c), veh/h				753	0	670	501	600	0	0	659	630
V/C Ratio(X)				0.08	0.00	0.19	0.65	0.61	0.00	0.00	0.45	0.46
Avail Cap(c_a), veh/h				753	0	670	532	642	0	0	705	674
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.72	0.72	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				7.7	0.0	8.1	13.3	11.4	0.0	0.0	10.6	10.7
Incr Delay (d2), s/veh				0.2	0.0	0.6	1.9	1.1	0.0	0.0	0.5	0.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.3	0.0	0.7	2.8	2.6	0.0	0.0	1.9	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				7.9	0.0	8.7	15.3	12.6	0.0	0.0	11.1	11.2
LnGrp LOS				A	A	A	B	B	A	A	B	B
Approach Vol, veh/h					183			696			589	
Approach Delay, s/veh					8.4			13.8			11.1	
Approach LOS					A			B			B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		23.7		21.3				21.3				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		18.0		18.0				18.0				
Max Q Clear Time (g_c+I1), s		4.2		15.8				7.9				
Green Ext Time (p_c), s		0.5		1.0				2.7				

Intersection Summary			
HCM 6th Ctrl Delay			12.1
HCM 6th LOS			B

HCM 6th Signalized Intersection Summary
1: Highland Avenue & Rose Avenue

02/01/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	7	8	38	7	130	8	680	52	204	797	11
Future Volume (veh/h)	6	7	8	38	7	130	8	680	52	204	797	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	7	8	9	41	8	141	9	739	57	222	866	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	177	168	244	109	26	181	21	1549	119	269	2165	30
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.01	0.47	0.47	0.15	0.61	0.61
Sat Flow, veh/h	571	1084	1572	234	170	1163	1767	3317	256	1767	3560	49
Grp Volume(v), veh/h	15	0	9	190	0	0	9	393	403	222	429	449
Grp Sat Flow(s),veh/h/ln	1655	0	1572	1567	0	0	1767	1763	1810	1767	1763	1847
Q Serve(g_s), s	0.0	0.0	0.3	4.2	0.0	0.0	0.3	9.2	9.2	7.3	7.6	7.6
Cycle Q Clear(g_c), s	0.4	0.0	0.3	6.9	0.0	0.0	0.3	9.2	9.2	7.3	7.6	7.6
Prop In Lane	0.47		1.00	0.22		0.74	1.00		0.14	1.00		0.03
Lane Grp Cap(c), veh/h	345	0	244	316	0	0	21	823	845	269	1072	1123
V/C Ratio(X)	0.04	0.00	0.04	0.60	0.00	0.00	0.44	0.48	0.48	0.82	0.40	0.40
Avail Cap(c_a), veh/h	562	0	472	539	0	0	147	823	845	309	1072	1123
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.6	0.0	21.5	24.3	0.0	0.0	29.5	11.0	11.0	24.6	6.1	6.1
Incr Delay (d2), s/veh	0.1	0.0	0.1	1.8	0.0	0.0	14.0	2.0	1.9	14.7	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	2.5	0.0	0.0	0.2	3.1	3.2	3.8	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.6	0.0	21.6	26.1	0.0	0.0	43.5	12.9	12.9	39.3	7.2	7.2
LnGrp LOS	C	A	C	C	A	A	D	B	B	D	A	A
Approach Vol, veh/h		24			190			805			1100	
Approach Delay, s/veh		21.6			26.1			13.3			13.7	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.6	32.5		13.8	5.2	41.0		13.8
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	10.5	18.0		18.0	5.0	23.5		18.0
Max Q Clear Time (g_c+I1), s	9.3	11.2		2.4	2.3	9.6		8.9
Green Ext Time (p_c), s	0.1	2.5		0.0	0.0	4.3		0.6

Intersection Summary		
HCM 6th Ctrl Delay		14.7
HCM 6th LOS		B

HCM 6th Signalized Intersection Summary
5: Second Street & SR 99 SB On Ramps/SR 99 SB Off Ramps

02/01/2023

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	164	0	157	0	0	0	0	506	80	123	521	0
Future Volume (veh/h)	164	0	157	0	0	0	0	506	80	123	521	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	178	0	171				0	550	87	134	566	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	733	0	652				0	743	117	170	1486	0
Arrive On Green	0.41	0.00	0.41				0.00	0.24	0.24	0.10	0.42	0.00
Sat Flow, veh/h	1767	0	1572				0	3143	481	1767	3618	0
Grp Volume(v), veh/h	178	0	171				0	317	320	134	566	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572				0	1763	1769	1767	1763	0
Q Serve(g_s), s	3.6	0.0	3.9				0.0	9.1	9.2	4.1	6.1	0.0
Cycle Q Clear(g_c), s	3.6	0.0	3.9				0.0	9.1	9.2	4.1	6.1	0.0
Prop In Lane	1.00		1.00				0.00		0.27	1.00		0.00
Lane Grp Cap(c), veh/h	733	0	652				0	429	431	170	1486	0
V/C Ratio(X)	0.24	0.00	0.26				0.00	0.74	0.74	0.79	0.38	0.00
Avail Cap(c_a), veh/h	733	0	652				0	577	579	177	1795	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.81	0.81	0.00
Uniform Delay (d), s/veh	10.5	0.0	10.6				0.0	19.2	19.2	24.3	11.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	1.0				0.0	3.4	3.5	16.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	1.3				0.0	3.8	3.8	2.4	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.3	0.0	11.5				0.0	22.6	22.7	41.1	11.1	0.0
LnGrp LOS	B	A	B				A	C	C	D	B	A
Approach Vol, veh/h		349						637			700	
Approach Delay, s/veh		11.4						22.7			16.8	
Approach LOS		B						C			B	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		9.8	17.9		27.3		27.7					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		5.5	18.0		18.0		28.0					
Max Q Clear Time (g_c+I1), s		6.1	11.2		5.9		8.1					
Green Ext Time (p_c), s		0.0	2.2		1.3		3.8					

Intersection Summary	
HCM 6th Ctrl Delay	17.9
HCM 6th LOS	B

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	11	1	135	111	550	0	0	534	187
Future Volume (veh/h)	0	0	0	11	1	135	111	550	0	0	534	187
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				12	1	147	121	598	0	0	580	203
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				677	56	651	196	945	0	0	1041	364
Arrive On Green				0.41	0.41	0.41	0.41	0.41	0.00	0.00	0.41	0.41
Sat Flow, veh/h				1637	136	1572	239	2411	0	0	2655	895
Grp Volume(v), veh/h				13	0	147	329	390	0	0	399	384
Grp Sat Flow(s),veh/h/ln				1774	0	1572	962	1604	0	0	1763	1694
Q Serve(g_s), s				0.2	0.0	3.0	7.8	9.5	0.0	0.0	8.7	8.7
Cycle Q Clear(g_c), s				0.2	0.0	3.0	16.5	9.5	0.0	0.0	8.7	8.7
Prop In Lane				0.92		1.00	0.37		0.00	0.00		0.53
Lane Grp Cap(c), veh/h				734	0	651	489	652	0	0	716	688
V/C Ratio(X)				0.02	0.00	0.23	0.67	0.60	0.00	0.00	0.56	0.56
Avail Cap(c_a), veh/h				734	0	651	539	722	0	0	793	763
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.72	0.72	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				8.7	0.0	9.5	13.5	11.6	0.0	0.0	11.4	11.4
Incr Delay (d2), s/veh				0.0	0.0	0.8	2.1	0.8	0.0	0.0	0.7	0.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.1	0.0	1.0	3.2	2.9	0.0	0.0	2.9	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				8.7	0.0	10.3	15.6	12.5	0.0	0.0	12.1	12.1
LnGrp LOS				A	A	B	B	B	A	A	B	B
Approach Vol, veh/h					160			719			783	
Approach Delay, s/veh					10.2			13.9			12.1	
Approach LOS					B			B			B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		25.2		24.8				24.8				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		18.5		22.5				22.5				
Max Q Clear Time (g_c+I1), s		5.0		18.5				10.7				
Green Ext Time (p_c), s		0.4		1.8				4.0				

Intersection Summary			
HCM 6th Ctrl Delay			12.7
HCM 6th LOS			B

HCM 6th Signalized Intersection Summary
1: Highland Avenue & Rose Avenue

02/01/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	19	8	34	5	196	11	878	58	127	656	13
Future Volume (veh/h)	13	19	8	34	5	196	11	878	58	127	656	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	14	21	9	37	5	213	12	954	63	138	713	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	173	222	314	97	23	262	27	1599	106	175	1981	39
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.02	0.48	0.48	0.10	0.56	0.56
Sat Flow, veh/h	447	1114	1572	143	116	1311	1767	3357	222	1767	3536	69
Grp Volume(v), veh/h	35	0	9	255	0	0	12	501	516	138	355	372
Grp Sat Flow(s),veh/h/ln	1562	0	1572	1569	0	0	1767	1763	1816	1767	1763	1843
Q Serve(g_s), s	0.0	0.0	0.3	4.9	0.0	0.0	0.4	12.5	12.5	4.6	6.7	6.7
Cycle Q Clear(g_c), s	0.9	0.0	0.3	9.3	0.0	0.0	0.4	12.5	12.5	4.6	6.7	6.7
Prop In Lane	0.40		1.00	0.15		0.84	1.00		0.12	1.00		0.04
Lane Grp Cap(c), veh/h	396	0	314	382	0	0	27	840	865	175	988	1033
V/C Ratio(X)	0.09	0.00	0.03	0.67	0.00	0.00	0.45	0.60	0.60	0.79	0.36	0.36
Avail Cap(c_a), veh/h	548	0	474	539	0	0	150	840	865	215	988	1033
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.6	0.0	19.3	22.9	0.0	0.0	29.3	11.5	11.5	26.4	7.3	7.3
Incr Delay (d2), s/veh	0.1	0.0	0.0	2.0	0.0	0.0	11.4	3.1	3.0	14.6	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.1	3.3	0.0	0.0	0.2	4.4	4.5	2.4	1.9	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.7	0.0	19.4	24.9	0.0	0.0	40.7	14.6	14.5	41.0	8.3	8.2
LnGrp LOS	B	A	B	C	A	A	D	B	B	D	A	A
Approach Vol, veh/h		44			255			1029			865	
Approach Delay, s/veh		19.6			24.9			14.9			13.5	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.4	33.1		16.5	5.4	38.1		16.5
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	7.3	21.1		18.1	5.1	23.3		18.1
Max Q Clear Time (g_c+I1), s	6.6	14.5		2.9	2.4	8.7		11.3
Green Ext Time (p_c), s	0.0	3.2		0.1	0.0	3.5		0.8

Intersection Summary	
HCM 6th Ctrl Delay	15.6
HCM 6th LOS	B

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	232	0	50	0	0	0	0	656	48	154	489	0
Future Volume (veh/h)	232	0	50	0	0	0	0	656	48	154	489	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	252	0	54				0	713	52	167	532	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	675	0	601				0	918	67	164	1591	0
Arrive On Green	0.38	0.00	0.38				0.00	0.28	0.28	0.09	0.45	0.00
Sat Flow, veh/h	1767	0	1572				0	3425	243	1767	3618	0
Grp Volume(v), veh/h	252	0	54				0	377	388	167	532	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572				0	1763	1812	1767	1763	0
Q Serve(g_s), s	5.6	0.0	1.2				0.0	10.6	10.7	5.0	5.3	0.0
Cycle Q Clear(g_c), s	5.6	0.0	1.2				0.0	10.6	10.7	5.0	5.3	0.0
Prop In Lane	1.00		1.00				0.00		0.13	1.00		0.00
Lane Grp Cap(c), veh/h	675	0	601				0	486	499	164	1591	0
V/C Ratio(X)	0.37	0.00	0.09				0.00	0.78	0.78	1.02	0.33	0.00
Avail Cap(c_a), veh/h	675	0	601				0	588	604	164	1591	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.73	0.73	0.00
Uniform Delay (d), s/veh	12.0	0.0	10.7				0.0	18.0	18.0	24.5	9.6	0.0
Incr Delay (d2), s/veh	1.6	0.0	0.3				0.0	5.4	5.3	65.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.4				0.0	4.6	4.7	4.9	1.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.6	0.0	11.0				0.0	23.4	23.3	90.0	9.7	0.0
LnGrp LOS	B	A	B				A	C	C	F	A	A
Approach Vol, veh/h		306						765			699	
Approach Delay, s/veh		13.1						23.3			28.9	
Approach LOS		B						C			C	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		9.5	19.4		25.1		28.9					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		5.0	18.0		18.0		18.0					
Max Q Clear Time (g_c+I1), s		7.0	12.7		7.6		7.3					
Green Ext Time (p_c), s		0.0	2.2		1.2		2.6					

Intersection Summary	
HCM 6th Ctrl Delay	23.8
HCM 6th LOS	C

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	42	0	182	122	769	0	0	602	238
Future Volume (veh/h)	0	0	0	42	0	182	122	769	0	0	602	238
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				46	0	198	133	836	0	0	654	259
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				707	0	629	167	914	0	0	986	391
Arrive On Green				0.40	0.00	0.40	0.40	0.40	0.00	0.00	0.40	0.40
Sat Flow, veh/h				1767	0	1572	158	2371	0	0	2559	976
Grp Volume(v), veh/h				46	0	198	442	527	0	0	467	446
Grp Sat Flow(s),veh/h/ln				1767	0	1572	840	1604	0	0	1763	1680
Q Serve(g_s), s				0.7	0.0	3.9	8.3	13.2	0.0	0.0	9.7	9.7
Cycle Q Clear(g_c), s				0.7	0.0	3.9	18.0	13.2	0.0	0.0	9.7	9.7
Prop In Lane				1.00		1.00	0.30		0.00	0.00		0.58
Lane Grp Cap(c), veh/h				707	0	629	440	642	0	0	705	672
V/C Ratio(X)				0.07	0.00	0.31	1.00	0.82	0.00	0.00	0.66	0.66
Avail Cap(c_a), veh/h				707	0	629	440	642	0	0	705	672
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.64	0.64	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				8.3	0.0	9.3	15.8	12.1	0.0	0.0	11.0	11.0
Incr Delay (d2), s/veh				0.2	0.0	1.3	35.2	5.6	0.0	0.0	2.3	2.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.3	0.0	1.3	8.5	4.6	0.0	0.0	3.4	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				8.5	0.0	10.6	51.1	17.6	0.0	0.0	13.4	13.5
LnGrp LOS				A	A	B	F	B	A	A	B	B
Approach Vol, veh/h					244			969			913	
Approach Delay, s/veh					10.2			32.9			13.4	
Approach LOS					B			C			B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		22.5		22.5				22.5				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		18.0		18.0				18.0				
Max Q Clear Time (g_c+I1), s		5.9		20.0				11.7				
Green Ext Time (p_c), s		0.7		0.0				3.0				

Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
1: Highland Avenue & Rose Avenue

02/02/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	11	13	26	11	204	13	939	58	322	1054	18
Future Volume (veh/h)	10	11	13	26	11	204	13	939	58	322	1054	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	11	12	14	28	12	222	14	1021	63	350	1146	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	166	156	306	74	28	261	30	1336	82	396	2139	37
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.02	0.40	0.40	0.22	0.60	0.60
Sat Flow, veh/h	477	803	1572	99	142	1339	1767	3373	208	1767	3545	62
Grp Volume(v), veh/h	23	0	14	262	0	0	14	534	550	350	570	596
Grp Sat Flow(s),veh/h/ln	1279	0	1572	1580	0	0	1767	1763	1818	1767	1763	1844
Q Serve(g_s), s	0.0	0.0	0.5	5.9	0.0	0.0	0.6	19.1	19.1	14.0	13.8	13.8
Cycle Q Clear(g_c), s	0.7	0.0	0.5	11.6	0.0	0.0	0.6	19.1	19.1	14.0	13.8	13.8
Prop In Lane	0.48		1.00	0.11		0.85	1.00		0.11	1.00		0.03
Lane Grp Cap(c), veh/h	322	0	306	362	0	0	30	698	720	396	1064	1113
V/C Ratio(X)	0.07	0.00	0.05	0.72	0.00	0.00	0.47	0.76	0.76	0.88	0.54	0.54
Avail Cap(c_a), veh/h	398	0	390	446	0	0	121	698	720	472	1064	1113
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.0	0.0	23.9	28.3	0.0	0.0	35.5	19.1	19.1	27.4	8.5	8.5
Incr Delay (d2), s/veh	0.1	0.0	0.1	4.4	0.0	0.0	10.9	7.8	7.6	15.8	1.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.2	4.6	0.0	0.0	0.3	8.1	8.3	7.0	4.3	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.0	0.0	23.9	32.7	0.0	0.0	46.5	26.8	26.6	43.2	10.4	10.3
LnGrp LOS	C	A	C	C	A	A	D	C	C	D	B	B
Approach Vol, veh/h		37			262			1098			1516	
Approach Delay, s/veh		24.0			32.7			27.0			17.9	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	20.8	33.4		18.7	5.7	48.5		18.7
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	19.5	28.9		18.1	5.0	43.4		18.1
Max Q Clear Time (g_c+I1), s	16.0	21.1		2.7	2.6	15.8		13.6
Green Ext Time (p_c), s	0.4	3.8		0.1	0.0	8.0		0.6

Intersection Summary			
HCM 6th Ctrl Delay			22.8
HCM 6th LOS			C

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	259	0	148	0	0	0	0	658	64	195	653	0
Future Volume (veh/h)	259	0	148	0	0	0	0	658	64	195	653	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	282	0	161				0	715	70	212	710	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	862	0	767				0	849	83	243	1541	0
Arrive On Green	0.49	0.00	0.49				0.00	0.26	0.26	0.14	0.44	0.00
Sat Flow, veh/h	1767	0	1572				0	3337	317	1767	3618	0
Grp Volume(v), veh/h	282	0	161				0	388	397	212	710	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572				0	1763	1798	1767	1763	0
Q Serve(g_s), s	11.7	0.0	7.0				0.0	25.0	25.1	14.1	17.0	0.0
Cycle Q Clear(g_c), s	11.7	0.0	7.0				0.0	25.0	25.1	14.1	17.0	0.0
Prop In Lane	1.00		1.00				0.00		0.18	1.00		0.00
Lane Grp Cap(c), veh/h	862	0	767				0	461	471	243	1541	0
V/C Ratio(X)	0.33	0.00	0.21				0.00	0.84	0.84	0.87	0.46	0.00
Avail Cap(c_a), veh/h	862	0	767				0	610	622	405	2159	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.83	0.83	0.00
Uniform Delay (d), s/veh	18.7	0.0	17.5				0.0	41.9	42.0	50.7	23.8	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.6				0.0	8.0	7.9	9.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	2.7				0.0	11.8	12.1	6.8	7.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.7	0.0	18.1				0.0	50.0	49.9	59.7	24.0	0.0
LnGrp LOS	B	A	B				A	D	D	E	C	A
Approach Vol, veh/h		443						785			922	
Approach Delay, s/veh		19.2						49.9			32.2	
Approach LOS		B						D			C	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		21.0	35.9		63.1		56.9					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		27.5	41.5		37.5		73.5					
Max Q Clear Time (g_c+I1), s		16.1	27.1		13.7		19.0					
Green Ext Time (p_c), s		0.4	4.3		2.3		5.9					

Intersection Summary	
HCM 6th Ctrl Delay	36.0
HCM 6th LOS	D

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	50	2	212	106	836	0	0	799	294
Future Volume (veh/h)	0	0	0	50	2	212	106	836	0	0	799	294
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				54	2	230	115	909	0	0	868	320
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				536	20	494	154	1363	0	0	1542	567
Arrive On Green				0.31	0.31	0.31	1.00	1.00	0.00	0.00	0.61	0.61
Sat Flow, veh/h				1707	63	1572	189	2315	0	0	2617	928
Grp Volume(v), veh/h				56	0	230	416	608	0	0	605	583
Grp Sat Flow(s),veh/h/ln				1770	0	1572	816	1604	0	0	1763	1689
Q Serve(g_s), s				2.7	0.0	14.1	38.0	0.0	0.0	0.0	24.4	24.6
Cycle Q Clear(g_c), s				2.7	0.0	14.1	62.2	0.0	0.0	0.0	24.4	24.6
Prop In Lane				0.96		1.00	0.28		0.00	0.00		0.55
Lane Grp Cap(c), veh/h				556	0	494	537	980	0	0	1077	1032
V/C Ratio(X)				0.10	0.00	0.47	0.77	0.62	0.00	0.00	0.56	0.56
Avail Cap(c_a), veh/h				556	0	494	640	1143	0	0	1256	1203
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.52	0.52	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				29.2	0.0	33.1	7.4	0.0	0.0	0.0	13.8	13.9
Incr Delay (d2), s/veh				0.4	0.0	3.1	2.6	0.4	0.0	0.0	0.5	0.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.2	0.0	5.8	5.2	0.1	0.0	0.0	9.4	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				29.5	0.0	36.2	10.0	0.4	0.0	0.0	14.3	14.3
LnGrp LOS				C	A	D	A	A	A	A	B	B
Approach Vol, veh/h					286			1024			1188	
Approach Delay, s/veh					34.9			4.3			14.3	
Approach LOS					C			A			B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		42.5		77.5				77.5				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		25.5		85.5				85.5				
Max Q Clear Time (g_c+I1), s		16.1		64.2				26.6				
Green Ext Time (p_c), s		0.7		8.5				11.6				

Intersection Summary			
HCM 6th Ctrl Delay			12.6
HCM 6th LOS			B

HCM 6th Signalized Intersection Summary
1: Highland Avenue & Rose Avenue

02/02/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	19	8	37	5	196	11	900	62	127	668	13
Future Volume (veh/h)	13	19	8	37	5	196	11	900	62	127	668	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	14	21	9	40	5	213	12	978	67	138	726	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	174	224	317	101	24	261	27	1588	109	175	1975	38
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.02	0.47	0.47	0.10	0.56	0.56
Sat Flow, veh/h	447	1109	1572	156	118	1294	1767	3348	229	1767	3538	68
Grp Volume(v), veh/h	35	0	9	258	0	0	12	515	530	138	362	378
Grp Sat Flow(s),veh/h/ln	1556	0	1572	1567	0	0	1767	1763	1814	1767	1763	1843
Q Serve(g_s), s	0.0	0.0	0.3	5.2	0.0	0.0	0.4	13.0	13.0	4.6	6.8	6.8
Cycle Q Clear(g_c), s	0.9	0.0	0.3	9.4	0.0	0.0	0.4	13.0	13.0	4.6	6.8	6.8
Prop In Lane	0.40		1.00	0.16		0.83	1.00		0.13	1.00		0.04
Lane Grp Cap(c), veh/h	398	0	317	385	0	0	27	836	861	175	984	1029
V/C Ratio(X)	0.09	0.00	0.03	0.67	0.00	0.00	0.45	0.62	0.62	0.79	0.37	0.37
Avail Cap(c_a), veh/h	547	0	474	540	0	0	150	836	861	215	984	1029
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.5	0.0	19.2	22.8	0.0	0.0	29.3	11.7	11.7	26.4	7.4	7.4
Incr Delay (d2), s/veh	0.1	0.0	0.0	2.0	0.0	0.0	11.4	3.4	3.3	14.6	1.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.1	3.4	0.0	0.0	0.2	4.6	4.7	2.4	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.6	0.0	19.3	24.8	0.0	0.0	40.7	15.1	15.0	41.0	8.4	8.4
LnGrp LOS	B	A	B	C	A	A	D	B	B	D	A	A
Approach Vol, veh/h		44			258			1057			878	
Approach Delay, s/veh		19.5			24.8			15.3			13.5	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.4	33.0		16.6	5.4	38.0		16.6
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	7.3	21.1		18.1	5.1	23.3		18.1
Max Q Clear Time (g_c+I1), s	6.6	15.0		2.9	2.4	8.8		11.4
Green Ext Time (p_c), s	0.0	3.1		0.1	0.0	3.6		0.8

Intersection Summary	
HCM 6th Ctrl Delay	15.8
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
5: Second Street & SR 99 SB On Ramps/SR 99 SB Off Ramps

02/02/2023

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	232	0	55	0	0	0	0	675	62	154	499	0
Future Volume (veh/h)	232	0	55	0	0	0	0	675	62	154	499	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	252	0	60				0	734	67	167	542	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	660	0	587				0	928	85	164	1622	0
Arrive On Green	0.37	0.00	0.37				0.00	0.28	0.28	0.09	0.46	0.00
Sat Flow, veh/h	1767	0	1572				0	3359	298	1767	3618	0
Grp Volume(v), veh/h	252	0	60				0	396	405	167	542	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572				0	1763	1802	1767	1763	0
Q Serve(g_s), s	5.6	0.0	1.3				0.0	11.2	11.2	5.0	5.3	0.0
Cycle Q Clear(g_c), s	5.6	0.0	1.3				0.0	11.2	11.2	5.0	5.3	0.0
Prop In Lane	1.00		1.00				0.00		0.17	1.00		0.00
Lane Grp Cap(c), veh/h	660	0	587				0	501	512	164	1622	0
V/C Ratio(X)	0.38	0.00	0.10				0.00	0.79	0.79	1.02	0.33	0.00
Avail Cap(c_a), veh/h	660	0	587				0	588	601	164	1622	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.72	0.72	0.00
Uniform Delay (d), s/veh	12.4	0.0	11.0				0.0	17.8	17.9	24.5	9.3	0.0
Incr Delay (d2), s/veh	1.7	0.0	0.3				0.0	6.2	6.1	65.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.5				0.0	4.9	5.0	4.9	1.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.0	0.0	11.4				0.0	24.1	24.0	89.6	9.4	0.0
LnGrp LOS	B	A	B				A	C	C	F	A	A
Approach Vol, veh/h		312						801			709	
Approach Delay, s/veh		13.5						24.0			28.3	
Approach LOS		B						C			C	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		9.5	19.8		24.7		29.3					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		5.0	18.0		18.0		18.0					
Max Q Clear Time (g_c+I1), s		7.0	13.2		7.6		7.3					
Green Ext Time (p_c), s		0.0	2.1		1.2		2.7					

Intersection Summary	
HCM 6th Ctrl Delay	23.9
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
6: Second Street & SR 99 NB Off Ramps/SR 99 NB On Ramps

02/02/2023

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	47	0	182	134	776	0	0	607	238
Future Volume (veh/h)	0	0	0	47	0	182	134	776	0	0	607	238
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				51	0	198	146	843	0	0	660	259
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				707	0	629	172	884	0	0	989	388
Arrive On Green				0.40	0.00	0.40	0.40	0.40	0.00	0.00	0.40	0.40
Sat Flow, veh/h				1767	0	1572	165	2295	0	0	2566	970
Grp Volume(v), veh/h				51	0	198	443	546	0	0	470	449
Grp Sat Flow(s),veh/h/ln				1767	0	1572	771	1604	0	0	1763	1681
Q Serve(g_s), s				0.8	0.0	3.9	8.2	13.9	0.0	0.0	9.8	9.8
Cycle Q Clear(g_c), s				0.8	0.0	3.9	18.0	13.9	0.0	0.0	9.8	9.8
Prop In Lane				1.00		1.00	0.33		0.00	0.00		0.58
Lane Grp Cap(c), veh/h				707	0	629	415	642	0	0	705	672
V/C Ratio(X)				0.07	0.00	0.31	1.07	0.85	0.00	0.00	0.67	0.67
Avail Cap(c_a), veh/h				707	0	629	415	642	0	0	705	672
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.60	0.60	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				8.3	0.0	9.3	16.2	12.3	0.0	0.0	11.0	11.0
Incr Delay (d2), s/veh				0.2	0.0	1.3	53.5	6.7	0.0	0.0	2.4	2.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.3	0.0	1.3	10.1	5.0	0.0	0.0	3.4	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				8.5	0.0	10.6	69.7	19.0	0.0	0.0	13.5	13.6
LnGrp LOS				A	A	B	F	B	A	A	B	B
Approach Vol, veh/h					249			989			919	
Approach Delay, s/veh					10.2			41.7			13.5	
Approach LOS					B			D			B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		22.5		22.5				22.5				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		18.0		18.0				18.0				
Max Q Clear Time (g_c+I1), s		5.9		20.0				11.8				
Green Ext Time (p_c), s		0.7		0.0				3.0				

Intersection Summary	
HCM 6th Ctrl Delay	26.0
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
1: Highland Avenue & Rose Avenue

02/02/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	11	13	34	11	204	13	964	65	322	1058	18
Future Volume (veh/h)	10	11	13	34	11	204	13	964	65	322	1058	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	11	12	14	37	12	222	14	1048	71	350	1150	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	167	158	314	83	29	258	30	1316	89	395	2126	37
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.02	0.39	0.39	0.22	0.60	0.60
Sat Flow, veh/h	473	789	1572	138	147	1290	1767	3351	227	1767	3546	62
Grp Volume(v), veh/h	23	0	14	271	0	0	14	551	568	350	572	598
Grp Sat Flow(s),veh/h/ln	1262	0	1572	1575	0	0	1767	1763	1815	1767	1763	1844
Q Serve(g_s), s	0.0	0.0	0.5	7.0	0.0	0.0	0.6	20.3	20.3	14.1	14.1	14.1
Cycle Q Clear(g_c), s	0.7	0.0	0.5	12.2	0.0	0.0	0.6	20.3	20.3	14.1	14.1	14.1
Prop In Lane	0.48		1.00	0.14		0.82	1.00		0.13	1.00		0.03
Lane Grp Cap(c), veh/h	325	0	314	371	0	0	30	692	713	395	1057	1106
V/C Ratio(X)	0.07	0.00	0.04	0.73	0.00	0.00	0.47	0.80	0.80	0.89	0.54	0.54
Avail Cap(c_a), veh/h	390	0	387	442	0	0	120	692	713	468	1057	1106
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	0.0	23.8	28.4	0.0	0.0	35.8	19.7	19.7	27.6	8.7	8.7
Incr Delay (d2), s/veh	0.1	0.0	0.1	5.0	0.0	0.0	11.0	9.2	9.0	16.2	2.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.2	4.8	0.0	0.0	0.3	8.9	9.1	7.1	4.5	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.9	0.0	23.8	33.4	0.0	0.0	46.8	29.0	28.7	43.8	10.7	10.6
LnGrp LOS	C	A	C	C	A	A	D	C	C	D	B	B
Approach Vol, veh/h		37			271			1133			1520	
Approach Delay, s/veh		23.9			33.4			29.1			18.3	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	21.0	33.4		19.2	5.7	48.6		19.2
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	19.5	28.9		18.1	5.0	43.4		18.1
Max Q Clear Time (g_c+I1), s	16.1	22.3		2.7	2.6	16.1		14.2
Green Ext Time (p_c), s	0.4	3.5		0.1	0.0	8.0		0.6

Intersection Summary	
HCM 6th Ctrl Delay	23.9
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
5: Second Street & SR 99 SB On Ramps/SR 99 SB Off Ramps

02/02/2023

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	259	0	164	0	0	0	0	709	75	195	682	0
Future Volume (veh/h)	259	0	164	0	0	0	0	709	75	195	682	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	282	0	178				0	771	82	212	741	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	825	0	734				0	909	97	243	1615	0
Arrive On Green	0.47	0.00	0.47				0.00	0.28	0.28	0.14	0.46	0.00
Sat Flow, veh/h	1767	0	1572				0	3308	342	1767	3618	0
Grp Volume(v), veh/h	282	0	178				0	423	430	212	741	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572				0	1763	1794	1767	1763	0
Q Serve(g_s), s	12.1	0.0	8.2				0.0	27.1	27.2	14.1	17.3	0.0
Cycle Q Clear(g_c), s	12.1	0.0	8.2				0.0	27.1	27.2	14.1	17.3	0.0
Prop In Lane	1.00		1.00				0.00		0.19	1.00		0.00
Lane Grp Cap(c), veh/h	825	0	734				0	498	507	243	1615	0
V/C Ratio(X)	0.34	0.00	0.24				0.00	0.85	0.85	0.87	0.46	0.00
Avail Cap(c_a), veh/h	825	0	734				0	639	650	405	2218	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.82	0.82	0.00
Uniform Delay (d), s/veh	20.3	0.0	19.2				0.0	40.6	40.6	50.7	22.3	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.8				0.0	8.4	8.3	8.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.0	3.1				0.0	12.8	13.1	6.8	7.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.4	0.0	20.0				0.0	49.0	48.9	59.6	22.5	0.0
LnGrp LOS	C	A	C				A	D	D	E	C	A
Approach Vol, veh/h		460						853			953	
Approach Delay, s/veh		20.9						49.0			30.7	
Approach LOS		C						D			C	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		21.0	38.4		60.5		59.5					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		27.5	43.5		35.5		75.5					
Max Q Clear Time (g_c+I1), s		16.1	29.2		14.1		19.3					
Green Ext Time (p_c), s		0.4	4.8		2.3		6.3					

Intersection Summary	
HCM 6th Ctrl Delay	35.6
HCM 6th LOS	D

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	65	2	212	106	836	0	0	813	294
Future Volume (veh/h)	0	0	0	65	2	212	106	836	0	0	813	294
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				71	2	230	115	909	0	0	884	320
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				532	15	486	154	1368	0	0	1563	564
Arrive On Green				0.31	0.31	0.31	1.00	1.00	0.00	0.00	0.62	0.62
Sat Flow, veh/h				1721	48	1572	188	2305	0	0	2631	916
Grp Volume(v), veh/h				73	0	230	413	611	0	0	613	591
Grp Sat Flow(s),veh/h/ln				1769	0	1572	804	1604	0	0	1763	1691
Q Serve(g_s), s				3.6	0.0	14.2	38.3	0.0	0.0	0.0	24.6	24.8
Cycle Q Clear(g_c), s				3.6	0.0	14.2	62.8	0.0	0.0	0.0	24.6	24.8
Prop In Lane				0.97		1.00	0.28		0.00	0.00		0.54
Lane Grp Cap(c), veh/h				547	0	486	534	988	0	0	1086	1041
V/C Ratio(X)				0.13	0.00	0.47	0.77	0.62	0.00	0.00	0.56	0.57
Avail Cap(c_a), veh/h				547	0	486	631	1143	0	0	1256	1205
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.50	0.50	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				29.9	0.0	33.6	7.5	0.0	0.0	0.0	13.6	13.6
Incr Delay (d2), s/veh				0.5	0.0	3.3	2.6	0.4	0.0	0.0	0.5	0.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.6	0.0	5.9	5.3	0.1	0.0	0.0	9.5	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.4	0.0	36.8	10.1	0.4	0.0	0.0	14.0	14.1
LnGrp LOS				C	A	D	B	A	A	A	B	B
Approach Vol, veh/h					303			1024			1204	
Approach Delay, s/veh					35.3			4.3			14.1	
Approach LOS					D			A			B	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	42.0	78.0	78.0
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	25.5	85.5	85.5
Max Q Clear Time (g_c+I1), s	16.2	64.8	26.8
Green Ext Time (p_c), s	0.8	8.4	11.8

Intersection Summary	
HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

Queues
1: Highland Avenue & Rose Avenue

02/02/2023

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	22	5	162	8	659	86	466
v/c Ratio	0.11	0.02	0.50	0.04	0.31	0.33	0.19
Control Delay	20.5	0.0	12.2	22.4	9.4	23.9	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.5	0.0	12.2	22.4	9.4	23.9	5.1
Queue Length 50th (ft)	7	0	9	2	64	26	18
Queue Length 95th (ft)	21	0	48	12	130	56	77
Internal Link Dist (ft)	3033		2076		1254		1395
Turn Bay Length (ft)		30		125		100	
Base Capacity (vph)	483	593	593	186	2093	258	2492
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.01	0.27	0.04	0.31	0.33	0.19

Intersection Summary

Queues
1: Highland Avenue & Rose Avenue

02/01/2023

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	15	9	172	9	709	217	759
v/c Ratio	0.09	0.02	0.54	0.05	0.44	0.59	0.30
Control Delay	22.2	0.1	13.8	24.9	13.9	27.4	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.2	0.1	13.8	24.9	13.9	27.4	5.3
Queue Length 50th (ft)	5	0	11	3	86	71	34
Queue Length 95th (ft)	18	0	55	14	167	120	133
Internal Link Dist (ft)	3033		2076		1254		1395
Turn Bay Length (ft)		30		125		125	
Base Capacity (vph)	405	604	562	172	1629	383	2561
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.01	0.31	0.05	0.44	0.57	0.30

Intersection Summary

Queues
1: Highland Avenue & Rose Avenue

02/01/2023

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	22	5	170	8	777	88	507
v/c Ratio	0.11	0.02	0.52	0.04	0.40	0.34	0.20
Control Delay	20.2	0.0	12.7	22.4	11.1	23.8	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	0.0	12.7	22.4	11.1	23.8	5.2
Queue Length 50th (ft)	7	0	11	2	80	26	21
Queue Length 95th (ft)	21	0	51	12	158	57	85
Internal Link Dist (ft)	3033		2076		1254		1395
Turn Bay Length (ft)		30		125		125	
Base Capacity (vph)	478	593	591	186	1931	262	2482
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.01	0.29	0.04	0.40	0.34	0.20

Intersection Summary

Lane Group	SET	SER	NET	SWL	SWT
Lane Group Flow (vph)	160	57	638	107	374
v/c Ratio	0.22	0.08	0.65	0.61	0.25
Control Delay	13.9	0.9	19.3	41.7	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	13.9	0.9	19.3	41.7	9.6
Queue Length 50th (ft)	36	0	87	34	34
Queue Length 95th (ft)	76	5	126	#95	52
Internal Link Dist (ft)	1229		460		258
Turn Bay Length (ft)					
Base Capacity (vph)	719	713	1147	175	1784
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.22	0.08	0.56	0.61	0.21

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	NWT	NWR	NET	SWT
Lane Group Flow (vph)	58	125	696	589
v/c Ratio	0.08	0.17	0.78	0.44
Control Delay	8.7	3.0	19.4	8.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	8.7	3.0	19.4	8.7
Queue Length 50th (ft)	9	0	74	38
Queue Length 95th (ft)	24	22	125	67
Internal Link Dist (ft)	916		258	1408
Turn Bay Length (ft)				
Base Capacity (vph)	758	750	978	1433
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.08	0.17	0.71	0.41

Intersection Summary

Queues
1: Highland Avenue & Rose Avenue

02/01/2023

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	15	9	190	9	796	222	878
v/c Ratio	0.07	0.02	0.57	0.05	0.54	0.60	0.37
Control Delay	21.1	0.1	15.0	24.9	15.9	28.0	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.1	0.1	15.0	24.9	15.9	28.0	6.3
Queue Length 50th (ft)	5	0	16	3	104	72	44
Queue Length 95th (ft)	17	0	61	14	192	126	165
Internal Link Dist (ft)	3033		2076		1254		1395
Turn Bay Length (ft)		30		125			
Base Capacity (vph)	455	604	557	172	1487	382	2364
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.01	0.34	0.05	0.54	0.58	0.37

Intersection Summary

Lane Group	SET	SER	NET	SWL	SWT
Lane Group Flow (vph)	178	171	637	134	566
v/c Ratio	0.25	0.23	0.65	0.77	0.38
Control Delay	14.1	3.8	19.3	55.7	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	14.1	3.8	19.3	55.7	10.8
Queue Length 50th (ft)	41	0	87	44	55
Queue Length 95th (ft)	84	33	127	#122	78
Internal Link Dist (ft)	1229		460		258
Turn Bay Length (ft)					
Base Capacity (vph)	719	744	1147	175	1784
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.25	0.23	0.56	0.77	0.32

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	NWT	NWR	NET	SWT
Lane Group Flow (vph)	13	147	719	783
v/c Ratio	0.02	0.20	0.79	0.56
Control Delay	10.1	3.3	19.8	10.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	10.1	3.3	19.8	10.9
Queue Length 50th (ft)	2	0	87	68
Queue Length 95th (ft)	10	27	134	102
Internal Link Dist (ft)	916		258	1408
Turn Bay Length (ft)				
Base Capacity (vph)	753	753	1048	1585
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.02	0.20	0.69	0.49

Intersection Summary

Queues
1: Highland Avenue & Rose Avenue

02/02/2023

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	35	9	255	12	1017	138	727
v/c Ratio	0.20	0.03	0.64	0.07	0.58	0.49	0.31
Control Delay	23.7	0.1	13.5	25.0	14.7	28.4	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.7	0.1	13.5	25.0	14.7	28.4	6.2
Queue Length 50th (ft)	12	0	14	4	129	46	34
Queue Length 95th (ft)	30	0	64	17	#272	90	137
Internal Link Dist (ft)	3033		2076		1254		1395
Turn Bay Length (ft)		30		125			
Base Capacity (vph)	369	549	613	175	1768	289	2343
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.02	0.42	0.07	0.58	0.48	0.31

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	SET	SER	NET	SWL	SWT
Lane Group Flow (vph)	252	54	765	167	532
v/c Ratio	0.41	0.09	0.71	1.04	0.31
Control Delay	16.5	0.7	20.3	115.3	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.5	0.7	20.3	115.3	9.0
Queue Length 50th (ft)	62	0	106	~58	48
Queue Length 95th (ft)	116	4	158	#158	74
Internal Link Dist (ft)	1229		460		258
Turn Bay Length (ft)					
Base Capacity (vph)	617	630	1156	160	1768
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.41	0.09	0.66	1.04	0.30

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	NWT	NWR	NET	SWT
Lane Group Flow (vph)	46	198	969	913
v/c Ratio	0.07	0.30	1.09	0.64
Control Delay	8.7	7.7	75.3	11.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	8.7	7.7	75.3	11.3
Queue Length 50th (ft)	7	21	~156	75
Queue Length 95th (ft)	21	54	#251	123
Internal Link Dist (ft)	916		258	1408
Turn Bay Length (ft)				
Base Capacity (vph)	700	667	891	1435
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.07	0.30	1.09	0.64

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
1: Highland Avenue & Rose Avenue

02/02/2023

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	23	14	262	14	1084	350	1166
v/c Ratio	0.17	0.04	0.67	0.11	0.74	0.79	0.46
Control Delay	29.6	0.2	16.1	34.7	21.6	39.0	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.6	0.2	16.1	34.7	21.6	39.0	6.1
Queue Length 50th (ft)	9	0	16	6	196	133	66
Queue Length 95th (ft)	29	0	81	24	#322	#287	234
Internal Link Dist (ft)	3033		2076		1254		1395
Turn Bay Length (ft)		30		125			
Base Capacity (vph)	293	520	578	128	1473	499	2510
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.03	0.45	0.11	0.74	0.70	0.46

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	SET	SER	NET	SWL	SWT
Lane Group Flow (vph)	282	161	785	212	710
v/c Ratio	0.37	0.21	0.79	0.74	0.42
Control Delay	27.1	4.9	45.0	56.7	14.0
Queue Delay	0.0	0.0	0.0	0.4	0.2
Total Delay	27.1	4.9	45.0	57.1	14.2
Queue Length 50th (ft)	145	0	291	159	188
Queue Length 95th (ft)	262	48	335	239	202
Internal Link Dist (ft)	1229		460		258
Turn Bay Length (ft)					
Base Capacity (vph)	767	776	1202	401	2146
Starvation Cap Reductn	0	0	0	28	604
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.37	0.21	0.65	0.57	0.46

Intersection Summary

Lane Group	NWT	NWR	NET	SWT
Lane Group Flow (vph)	56	230	1024	1188
v/c Ratio	0.11	0.39	0.75	0.54
Control Delay	37.4	9.7	13.5	10.8
Queue Delay	0.0	0.0	0.7	0.0
Total Delay	37.4	9.7	14.2	10.8
Queue Length 50th (ft)	34	14	124	198
Queue Length 95th (ft)	73	86	126	211
Internal Link Dist (ft)	916		258	1408
Turn Bay Length (ft)				
Base Capacity (vph)	491	585	1500	2428
Starvation Cap Reductn	0	0	195	0
Spillback Cap Reductn	0	0	0	8
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.11	0.39	0.78	0.49

Intersection Summary

Queues
1: Highland Avenue & Rose Avenue

02/02/2023

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	35	9	258	12	1045	138	740
v/c Ratio	0.20	0.03	0.64	0.07	0.59	0.49	0.32
Control Delay	23.4	0.1	13.6	25.0	15.2	28.5	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.4	0.1	13.6	25.0	15.2	28.5	6.3
Queue Length 50th (ft)	12	0	15	4	135	46	35
Queue Length 95th (ft)	30	0	65	17	#284	90	141
Internal Link Dist (ft)	3033		2076		1254		1395
Turn Bay Length (ft)		30		125			
Base Capacity (vph)	372	549	612	175	1763	288	2336
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.02	0.42	0.07	0.59	0.48	0.32

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	SET	SER	NET	SWL	SWT
Lane Group Flow (vph)	252	60	801	167	542
v/c Ratio	0.41	0.10	0.74	1.04	0.32
Control Delay	16.6	1.1	20.8	115.3	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.6	1.1	20.8	115.3	8.9
Queue Length 50th (ft)	62	0	113	~58	49
Queue Length 95th (ft)	116	6	167	#158	75
Internal Link Dist (ft)	1229		460		258
Turn Bay Length (ft)					
Base Capacity (vph)	612	626	1155	160	1768
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.41	0.10	0.69	1.04	0.31

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	NWT	NWR	NET	SWT
Lane Group Flow (vph)	51	198	989	919
v/c Ratio	0.07	0.30	1.15	0.64
Control Delay	8.8	7.8	100.8	11.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	8.8	7.8	100.8	11.4
Queue Length 50th (ft)	8	21	~167	76
Queue Length 95th (ft)	22	54	#263	125
Internal Link Dist (ft)	916		258	1408
Turn Bay Length (ft)				
Base Capacity (vph)	700	666	858	1435
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.07	0.30	1.15	0.64

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
1: Highland Avenue & Rose Avenue

02/02/2023

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	23	14	271	14	1119	350	1170
v/c Ratio	0.16	0.04	0.69	0.11	0.76	0.79	0.47
Control Delay	29.0	0.2	17.0	35.2	22.8	39.7	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.0	0.2	17.0	35.2	22.8	39.7	6.3
Queue Length 50th (ft)	9	0	20	6	208	135	70
Queue Length 95th (ft)	29	0	87	24	#376	#292	243
Internal Link Dist (ft)	3033		2076		1254		1395
Turn Bay Length (ft)		30		125			
Base Capacity (vph)	301	518	572	127	1465	497	2498
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.03	0.47	0.11	0.76	0.70	0.47

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	SET	SER	NET	SWL	SWT
Lane Group Flow (vph)	282	178	853	212	741
v/c Ratio	0.39	0.24	0.80	0.74	0.42
Control Delay	29.1	5.1	43.6	57.9	13.5
Queue Delay	0.0	0.0	0.0	0.4	0.2
Total Delay	29.1	5.1	43.6	58.3	13.7
Queue Length 50th (ft)	151	0	314	160	194
Queue Length 95th (ft)	270	51	360	239	206
Internal Link Dist (ft)	1229		460		258
Turn Bay Length (ft)					
Base Capacity (vph)	729	756	1259	401	2205
Starvation Cap Reductn	0	0	0	27	629
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.39	0.24	0.68	0.57	0.47

Intersection Summary

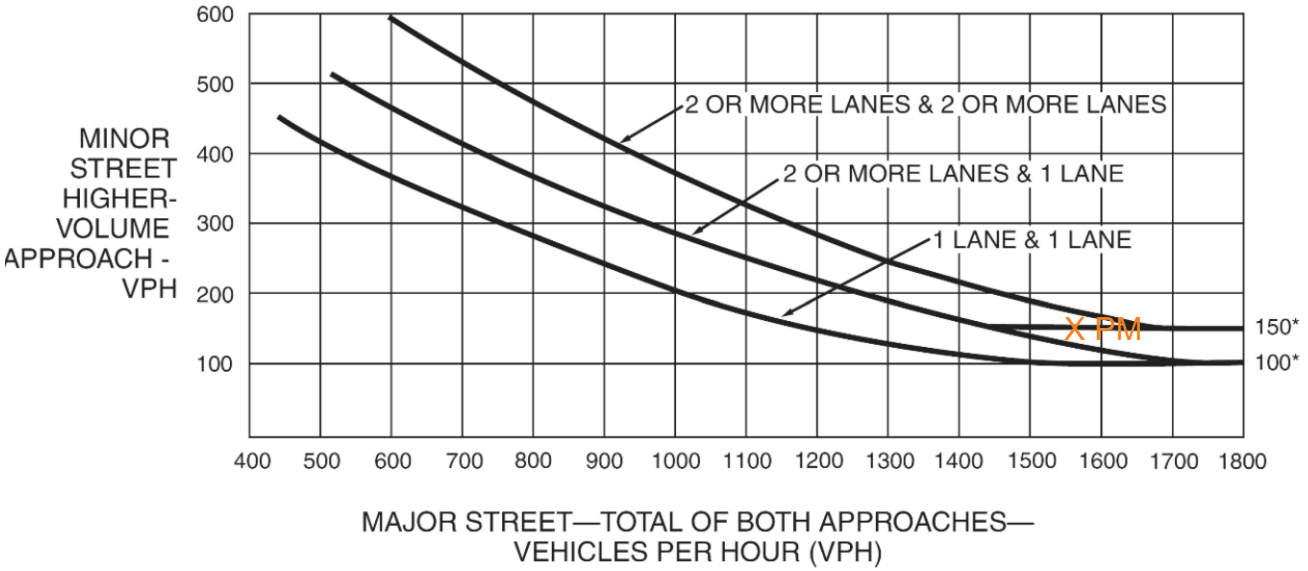
Lane Group	NWT	NWR	NET	SWT
Lane Group Flow (vph)	73	230	1024	1204
v/c Ratio	0.15	0.40	0.75	0.54
Control Delay	37.6	9.7	12.7	10.8
Queue Delay	0.0	0.0	0.5	0.0
Total Delay	37.6	9.7	13.2	10.8
Queue Length 50th (ft)	45	14	118	199
Queue Length 95th (ft)	90	86	120	217
Internal Link Dist (ft)	916		258	1408
Turn Bay Length (ft)				
Base Capacity (vph)	486	582	1493	2428
Starvation Cap Reductn	0	0	160	0
Spillback Cap Reductn	0	0	0	3
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.15	0.40	0.77	0.50

Intersection Summary

Appendix-C
Signal Warrants

Highland Avenue and Rose Avenue

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

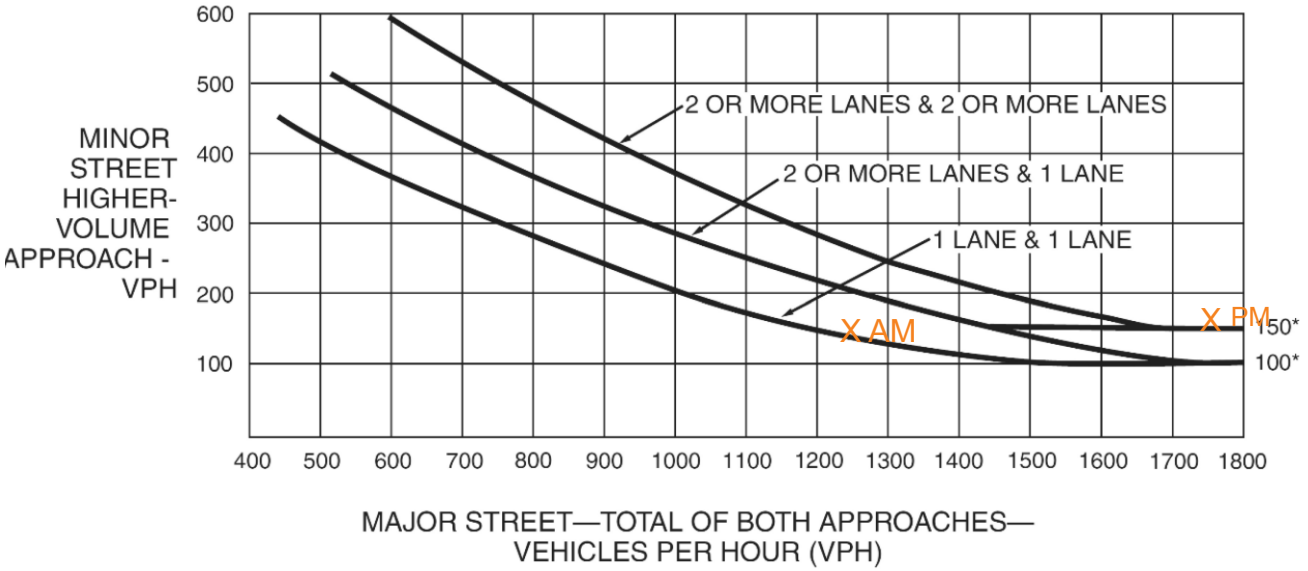
Exisitng Plus Project Project Peak Hour

PM Peak Hour Warrant Status: Not Met

LEGEND			
XAM	AM Peak Hour	XPM	PM Peak Hour

Highland Avenue and Rose Avenue

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

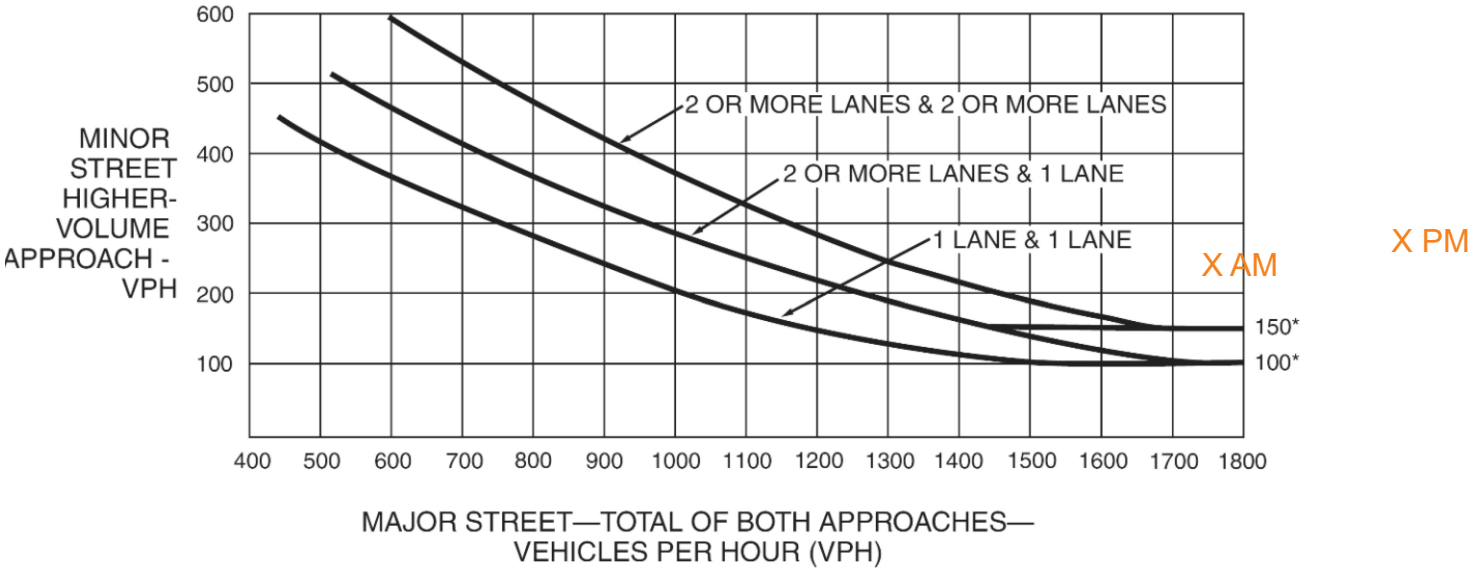
Opening Year 2023 With Project Peak Hour

AM Peak Hour Warrant Status: Not Met
PM Peak Hour Warrant Status: Met

LEGEND			
XAM	AM Peak Hour	XPM	PM Peak Hour

Highland Avenue and Rose Avenue

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

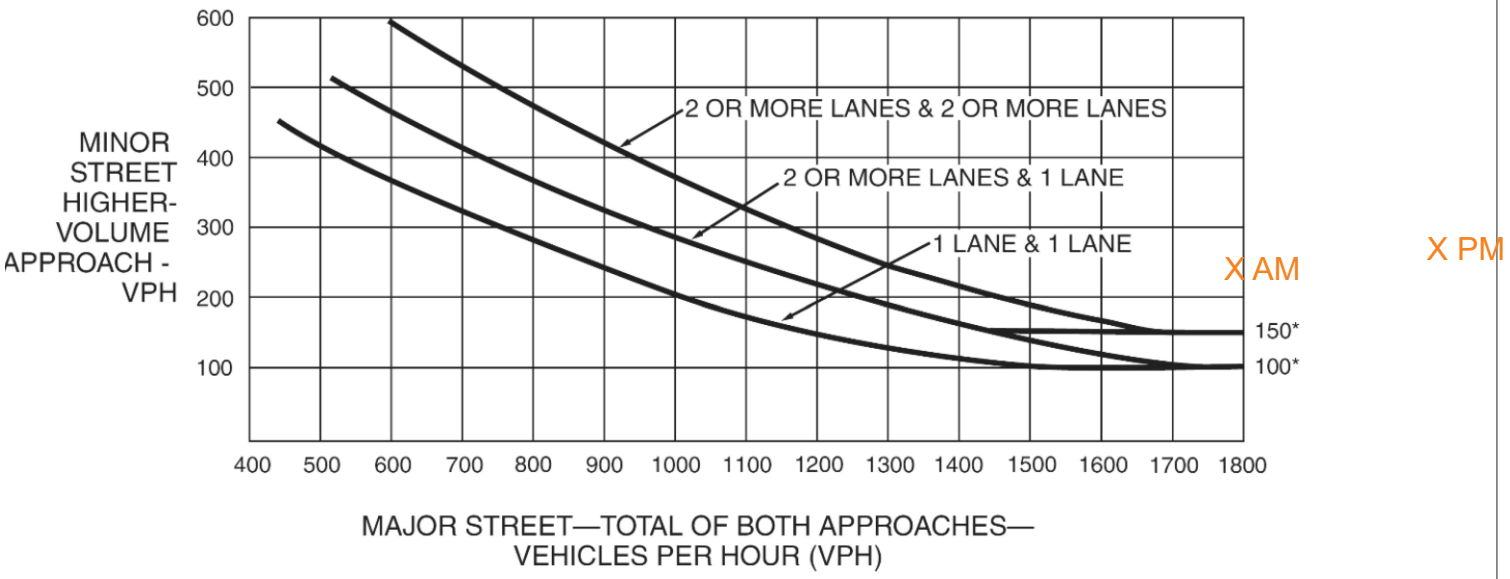
Future Year 2046 Without Project Peak Hour

AM Peak Hour Warrant Status: Met
PM Peak Hour Warrant Status: Met

LEGEND			
XAM	AM Peak Hour	XPM	PM Peak Hour

Highland Avenue and Rose Avenue

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

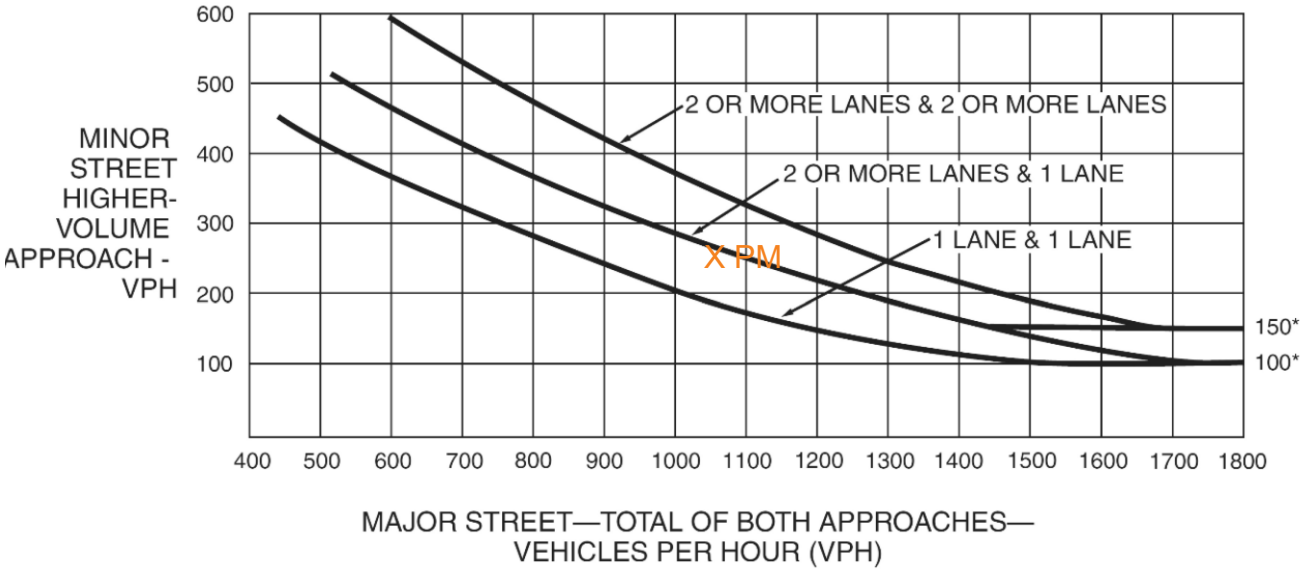
Future Year 2046 With Project Peak Hour

AM Peak Hour Warrant Status: Met
PM Peak Hour Warrant Status: Met

LEGEND			
XAM	AM Peak Hour	XPM	PM Peak Hour

Second Avenue and SR 99 NB Ramps

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

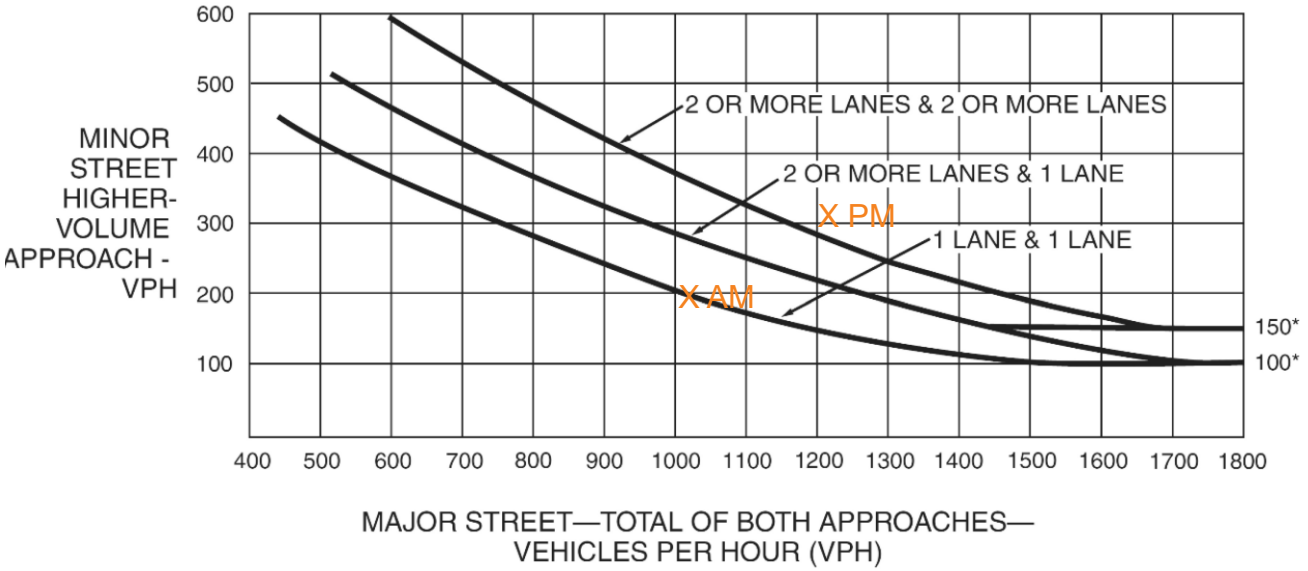
Exisitng Plus Project Peak Hour

PM Peak Hour Warrant Status: Not Met

LEGEND			
XAM	AM Peak Hour	XPM	PM Peak Hour

Second Avenue and SR 99 NB Ramps

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

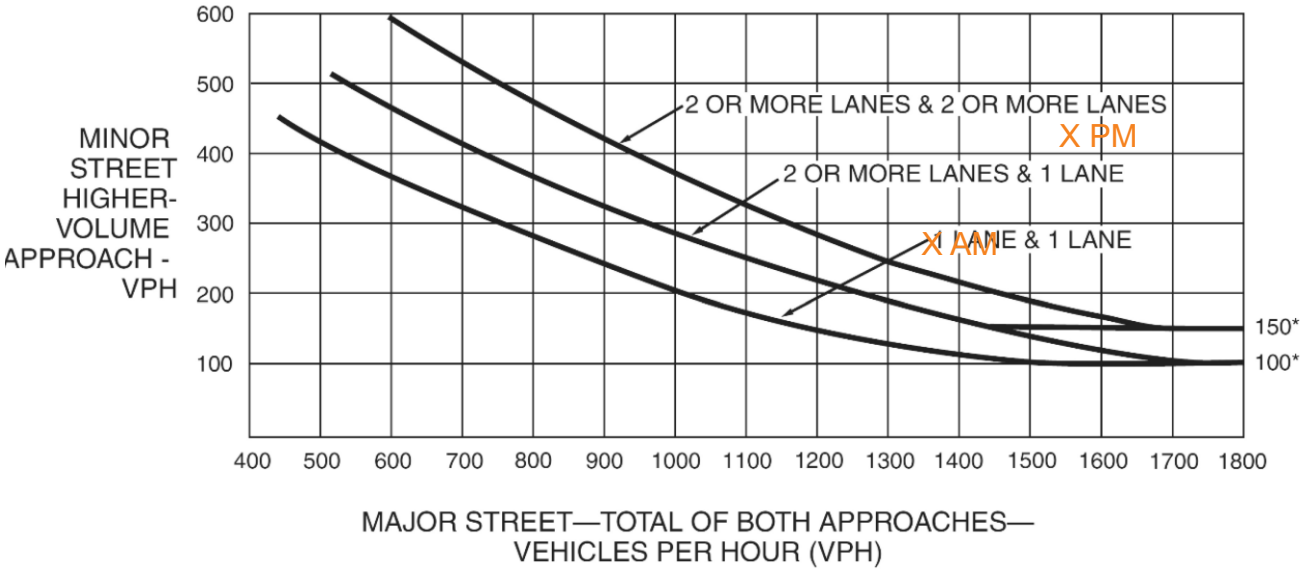
Opening Year 2023 With Project Peak Hour

AM Peak Hour Warrant Status: Not Met
PM Peak Hour Warrant Status: Met

LEGEND			
XAM	AM Peak Hour	XPM	PM Peak Hour

Second Avenue and SR 99 NB Ramps

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

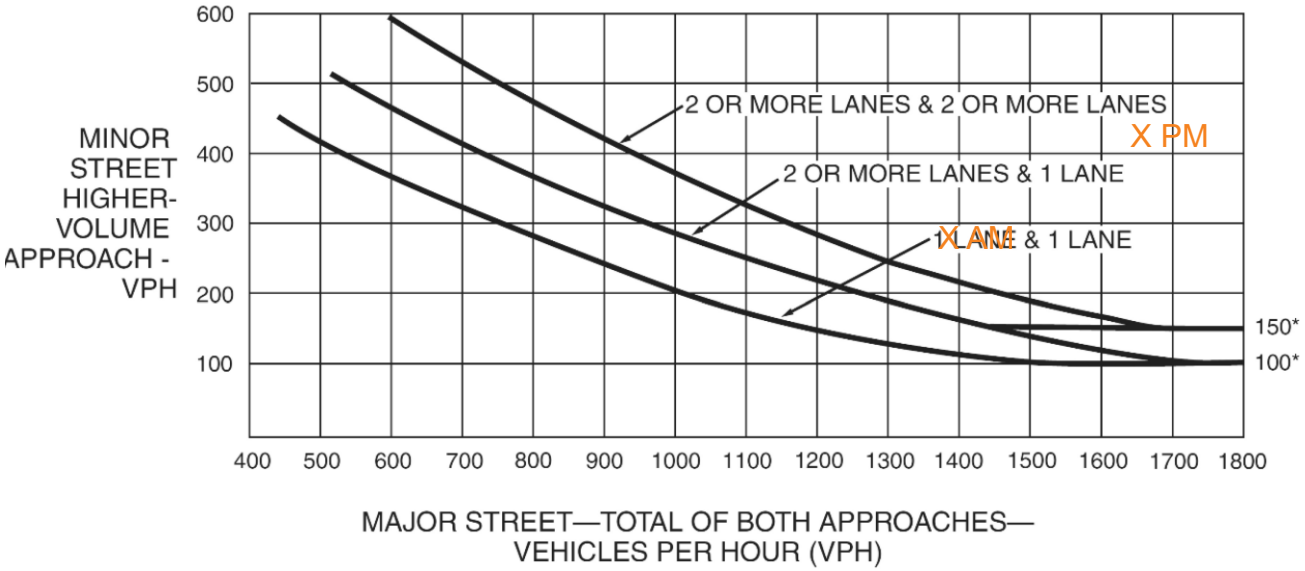
Horizon Year 2046 Without Project Peak Hour

AM Peak Hour Warrant Status: Met
PM Peak Hour Warrant Status: Met

LEGEND			
XAM	AM Peak Hour	XPM	PM Peak Hour

Second Avenue and SR 99 NB Ramps

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

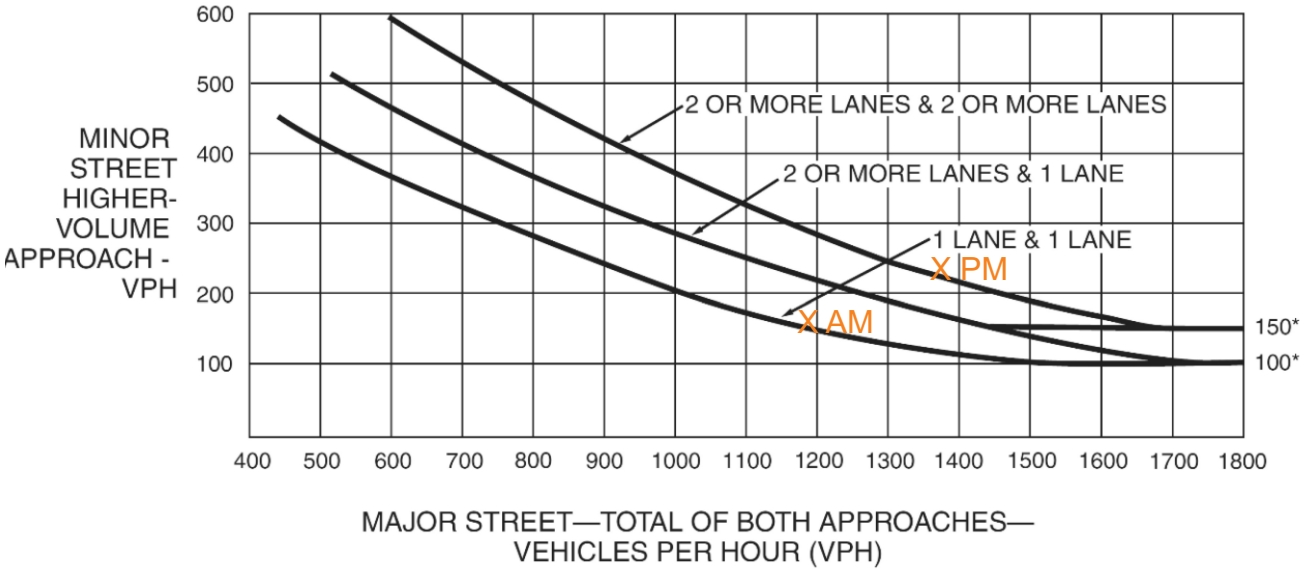
Horizon Year 2046 With Project Peak Hour

AM Peak Hour Warrant Status: Met
PM Peak Hour Warrant Status: Met

LEGEND			
XAM	AM Peak Hour	XPM	PM Peak Hour

Second Avenue and SR 99 SB Ramps

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

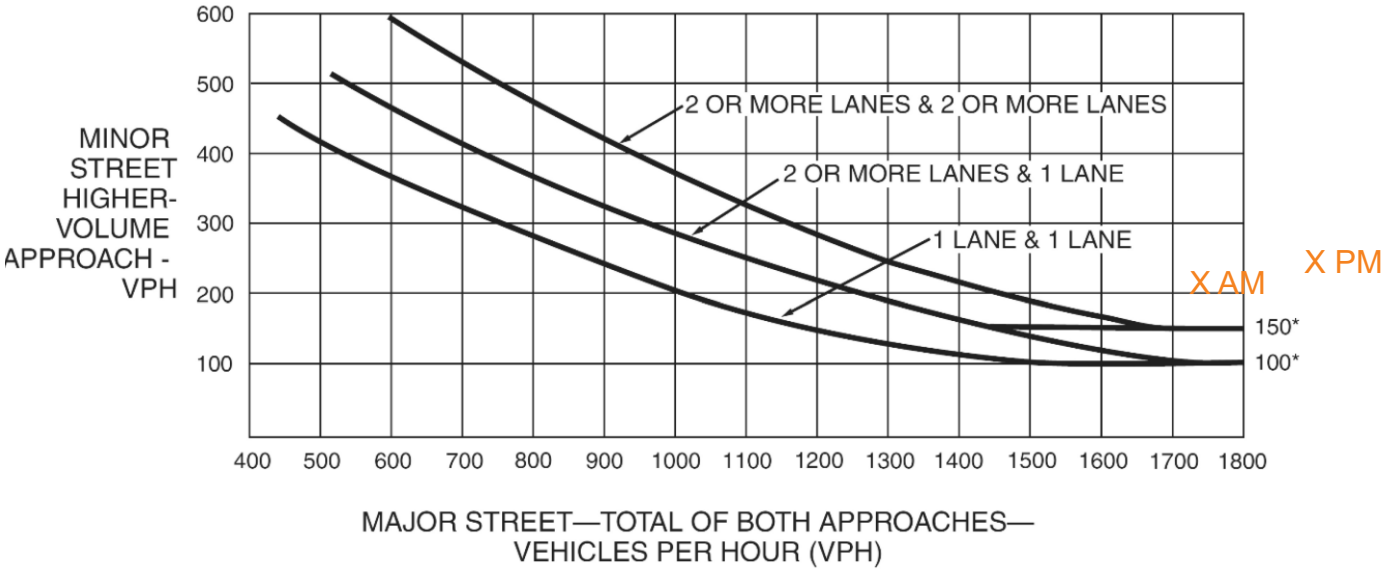
Cumulative Opeing Year 2023 With Project Peak Hour

AM Peak Hour Warrant Status: Met
PM Peak Hour Warrant Status: Met

LEGEND			
XAM	AM Peak Hour	XPM	PM Peak Hour

Second Avenue and SR 99 SB Ramps

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

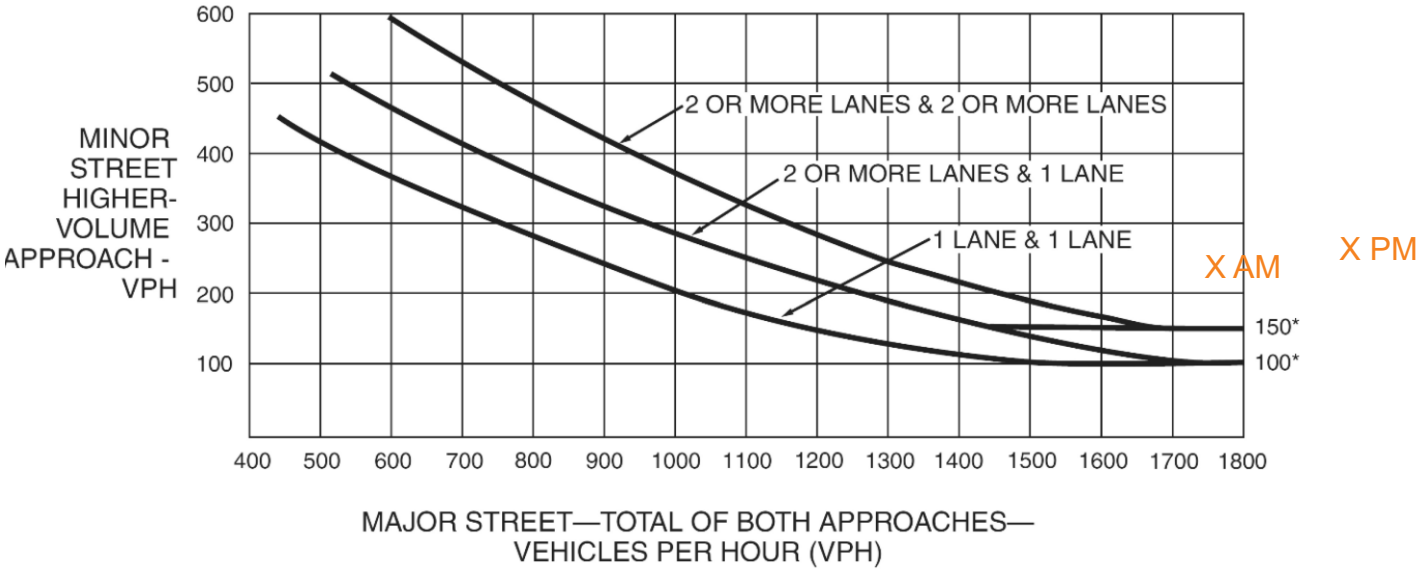
Future Year 2046 Without Project Peak Hour

AM Peak Hour Warrant Status: Met
PM Peak Hour Warrant Status: Met

LEGEND			
XAM	AM Peak Hour	XPM	PM Peak Hour

Second Avenue and SR 99 SB Ramps

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

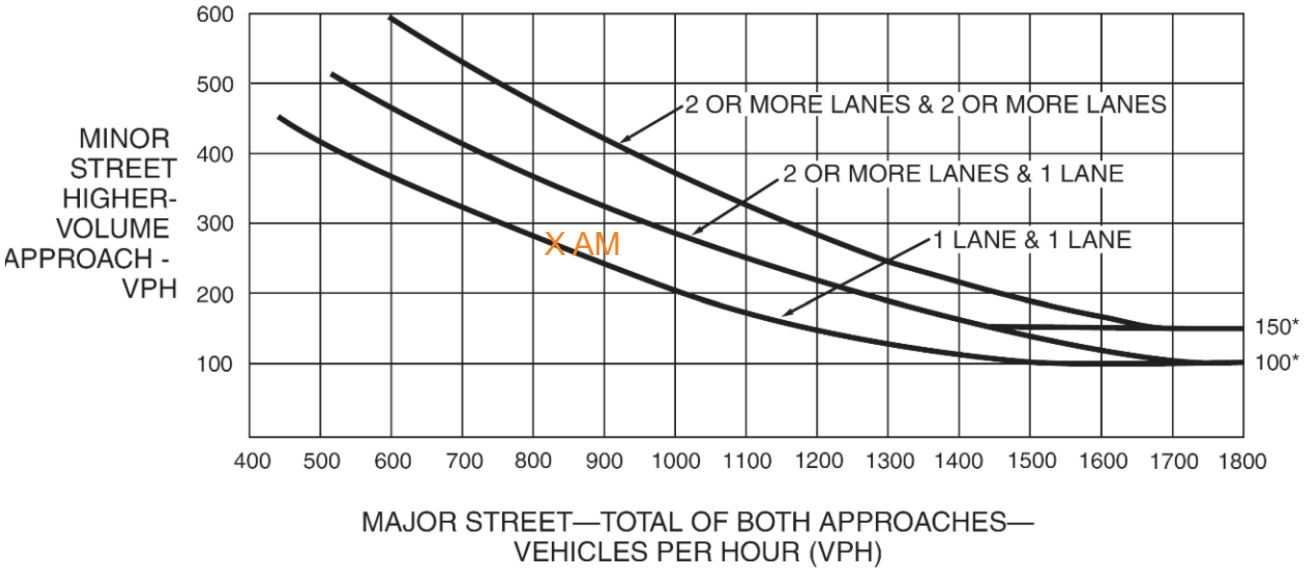
Future Year 2046 With Project Peak Hour

AM Peak Hour Warrant Status: Met
PM Peak Hour Warrant Status: Met

LEGEND			
XAM	AM Peak Hour	XPM	PM Peak Hour

Thompson Avenue and Nebraska Avenue

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

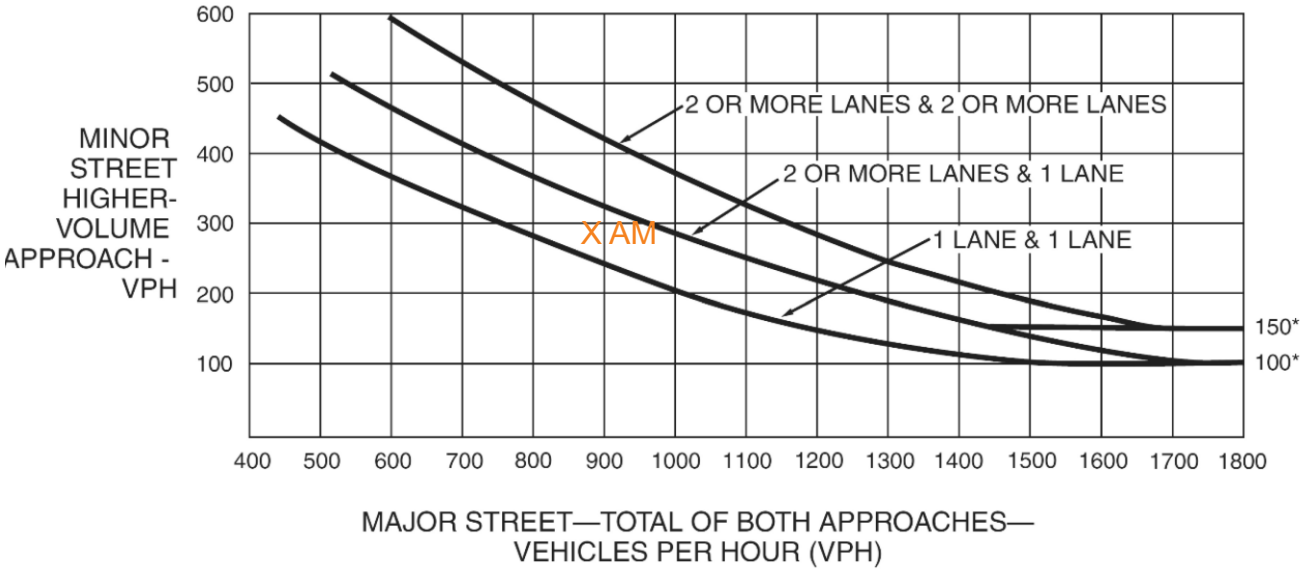
Future Year 2046 Without Project Peak Hour

AM Peak Hour Warrant Status: Not Met

LEGEND			
XAM	AM Peak Hour	XPM	PM Peak Hour

Thompson Avenue and Nebraska Avenue

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Future Year 2046 With Project Peak Hour

AM Peak Hour Warrant Status: Not Met

LEGEND			
XAM	AM Peak Hour	XPM	PM Peak Hour

Appendix-D
VMT Analysis

MEMORANDUM

TO: Allen Williams, AW Engineering

FROM: Erik Ruehr, VRPA Technologies, Inc.

DATE: August 14, 2023

RE: Nebraska at Highland Multi-Family Residential and commercial Development
Vehicle Miles Traveled (VMT) Analysis

This memorandum provides a vehicle miles traveled (VMT) analysis for the proposed Nebraska at Highland Multi-Family Residential and commercial Development in the City of Selma. The analysis was conducted to meet the requirements for transportation analysis under the California Environmental Quality Act (CEQA). The remainder of the memorandum includes sections describing background information, the project description, trip generation, and VMT screening analysis, VMT Analysis Methodology, VMT analysis, and a summary of results and conclusions.

BACKGROUND INFORMATION

Per the requirements of Senate Bill 743 (SB 743), VMT is the new performance measure used in CEQA transportation analysis. VMT became the required performance measure on July 1, 2020 replacing the previous performance measure which was level of service (LOS). The VMT generated by land development projects is compared to various screening criteria and significance thresholds to determine whether the level of VMT would be considered to be significant. Additional detail on this process is provided in the sections that follow.

CEQA allows agencies to adopt formal methodologies and thresholds of significance that will be used for environmental evaluation or to use methodologies and thresholds of significance determined on a case-by-case basis. At its November 15, 2021 City Council meeting, the City of Selma adopted the SB 743 Regional Guidelines prepared by the Fresno Council of Governments (Fresno COG). Therefore, this VMT analysis was based on the following documents adopted by the City Council:

- ✓ Fresno County SB 743 Implementation Regional Guidelines (Fresno COG/LSA 2021)
- ✓ Fresno County SB 743 Implementation Technical Report (Fresno COG/LSA 2021)

4630 W. Jennifer, Suite 105, Fresno, CA 93722 · Phone (559) 271-1200 · Fax (559) 271-1269
www.vrpatechnologies.com

PROJECT DESCRIPTION

The Project is located in the City of Selma east of SR 43/Highland Avenue and north of Nebraska Avenue. The site plan used in developing this VMT analysis is shown in Exhibit 1. The project includes the following land uses:

- ✓ Multi-Family Residential Development : 144 d.u.
- ✓ General Commercial/Retail: 32,670 s.f.
- ✓ Community Park

The Project is a mixed use project. The Fresno COG SB 743 guidelines provide the following guidance with respect to mixed-use projects:

"Mixed use projects may be evaluated for each component of the project independently, or the lead agency may use the predominant land use type for the analysis. The lead agency will make a determination of the predominant land use type on a case by case basis based on the project description."

In the case of the proposed Project, none of the land uses is considered to be predominant over the others. The guidelines go on to say that credit (i.e. a VMT reduction) may be taken for the internal capture of project trips (i.e. trips made within the project site).

TRIP GENERATION

Since the preferred VMT analysis methodology is to analyze each component of the project separately, separate trip generation analyses were conducted for the residential and retail components of the project, as shown in Exhibits 2 and 3. Since the community park has no parking lot and is intended to serve the local area, the number of trips and VMT generated are both considered to be insignificant.

VMT SCREENING ANALYSIS

The VMT screening analysis was conducted separately for the residential and retail components of the Project site as described below.

<u>Residential VMT Screening Analysis</u>

According to the Fresno County SB 743 guidelines, residential developments may be screened if they generate less than 500 daily trips or if they are in a low VMT area per the Fresno COG regional travel model. Following is analysis of these two issues:

- ✓ The residential portion of the project is expected to generate 998 trips per Exhibit 2. Therefore, it is not screened due to generation of less than 500 daily trips.

- ✓ According to Fresno COG's VMT Screening Application available on Fresno COG's website and based on data from the regional travel model, the project site is located in Traffic Analysis Zone 1970, which has a medium level of VMT generation. Therefore, the residential portion of the project is not screened out due to location in a low VMT area.

Retail VMT Screening Analysis

According to the Fresno County SB 743 guidelines, retail developments may be screened if they are local serving and less than 50,000 sq. ft. Since the retail portion of the project is both less than 50,000 sq. ft and local serving, the retail portion of the project is screened out of requiring a VMT analysis. It can be presumed to have a less than significant VMT impact. No further analysis is needed and no mitigation measures are required.

VMT ANALYSIS METHODOLOGY - RESIDENTIAL

Fresno COG's VMT screening process recommends that land developments that generate less than 500 daily trips be screened out of requiring a VMT analysis. This threshold was based on analysis of GHG emissions which are highly correlated to VMT. The methodology used to determine Fresno COG's screening threshold was applied to the residential portion of the Proposed project to determine whether it would have a less than significant VMT impact using the methodology that Fresno COG used in developing the screening threshold.

The determination of the screening threshold for which detailed VMT analysis is not required is based on the analysis on page 11 of the Fresno County SB 743 Implementation Regional Guidelines (Fresno COG 2021). The Fresno COG screening guidelines reference a GHG emission threshold of 3,000 metric tons of carbon dioxide equivalent per year. Fresno COG then uses a generalized assumption that 50% of the GHG emissions from a land development result from vehicle emissions. This allows Fresno COG to relate the threshold of 3,000 metric tons of carbon dioxide per year to size expressed in terms of VMT generated per day and daily trip generation.

For the residential portion of the project, the GHG threshold of 3,000 metric tons of carbon dioxide per year from the Fresno COG guidance was used, but instead of using a generalized assumption that 50% of GHG emissions from a land development result from vehicle emissions, the CalEEMod air quality analysis model was used to determine VMT generation specific to the residential portion of the Project. This analysis is described in the section that follows.

VMT ANALYSIS - RESIDENTIAL

The VMT analysis was conducted as follows:

- ✓ A GHG emission threshold of significance of 3,000 was used as the starting point of the analysis.

- ✓ The CalEEMod air quality analysis model was run for the residential portion of the Project, resulting in an estimate that 1,460 metric tons of carbon dioxide would be produced by vehicle trips associated with this component of the project (see Section 4.0 of the attached CalEEMod

report). In addition, it was estimated and that this would account for 75% of residential GHG (see Section 2.2 of the attached CalEEMod report).

- ✓ Since project GHG emissions produced by vehicles are 1,460 metric tons per year, residential GHG emissions would be 1,947 metric tons per year (1,460 divided by 0.75).

- ✓ With estimated annual GHG emissions of 1,947 metric tons per year, the residential portion of the Project falls below the threshold of 3,000 metric tons per that would cause a VMT impact.

The residential portion of the Project can be presumed to have a less than significant VMT impact. No further analysis is needed and no mitigation measures are required.

SUMMARY OF RESULTS AND CONCLUSIONS

Following is a summary of results and conclusions:

- ✓ The VMT analysis was conducted per Fresno COG's SB 743 guidelines.

- ✓ Since the project is a mixed use project, the VMT analyses of the residential and retail components of the project were conducted separately.

- ✓ A screening process was conducted to determine whether either or both portions of the project were screened out. The residential portion of the project was not screened out. The retail portion of the project was screened out of the requirement to conduct a VMT analysis due to being local serving and less than 50,000 sq. ft. in size. The retail portion of the project was therefore presumed to have a less than significant VMT impact.

- ✓ A VMT analysis was conducted for the residential portion of the project and it was found to generate 1.46 metric tons of GHG emissions per year as compared to a threshold value used by Fresno COG of 3,000 metric tons per year. The residential portion of the project was therefore presumed to have a less than significant VMT impact.

- ✓ Since both the retail and residential portions of the project were found to have a less than significant VMT impact, the Project as a whole has a less than significant VMT impact and no mitigation measures are required.

Please contact me if you have any questions. I can be reached by email at eruehr@vrpatechnologies.com or by phone at 858/361-7151.

SITE PLAN

BEING A DIVISION OF A PORTION OF THE WEST 1/2 OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 6, TOWNSHIP 16 SOUTH, RANGE 22 EAST, MOUNT DIABLO BASE & MERIDIAN IN THE CITY OF SELMA, COUNTY OF FRESNO, STATE OF CALIFORNIA.

SEPTEMBER, 2022

OWNERS: KARAMJIT SINGH NIJJAR
2850 NEBRASKA AVE. (ALSO SITE ADDRESS)
SELMA CA. 93662

ENGINEER: AW ENGINEERING
810 W. ACEQUIA AVE.
VISALIA, CA. 93291

PROJECT INFO:

LOCATION:	NE COR. NEBRASKA & HIGHLAND
TOTAL AREA:	APARTMENT COMPLEX – 10.57 AC. COMMUNITY PARK – 0.95 AC.
EXISTING PROPERTY USE:	VACANT
PROPOSED PROPERTY USE:	RESIDENTAIL/COMMUNITY PARK
A.P.N.:	388–030–260
ZONING:	R–1–7
FLOOD ZONE:	"X"
SEWAGE:	SKF DISTRICT
WATER:	CAL WATER
GAS & ELEC:	PG&E
COMMUNCATION:	XFINITY

APARTMENTS:

BUILDING "A"

1 BEDROOM UNITS	–	12	(PH1 – 4 / PH 2 – 8)
2 BEDROOM UNITS	–	84	(PH1 – 28 / PH2 – 56)

BUILDING "B"

1 BEDROOM UNITS	–	12	(PH1 – 8 /PH2 – 4)
2 BEDROOM UNITS	–	36	(PH1 – 24 / PH2 – 12)
TOTAL UNITS	–	144	

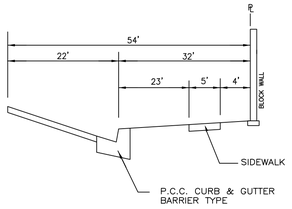
PARKING:

COVERED PARKING – 144

HANDICAP PARKING	–	15
STANDARD PARKING	–	294
TOTAL PARKING	–	309

OPEN SPACE

10.57 AC	TOTAL AREA
– 2.40 AC±	BUILDING AREAS
– 3.28 AC±	PARKING AREA
4.89 AC±	LANDSCAPING/SIDEWALK/ON–SITE PARK
46%	OPEN AREA PERCENTAGE



HIGHLAND AVE – STATE HWY 43

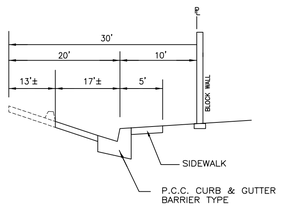
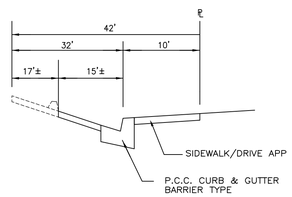
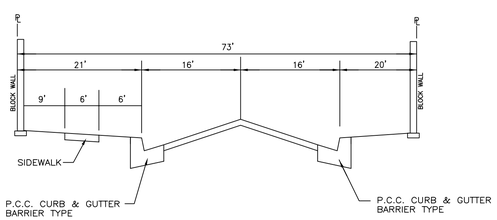


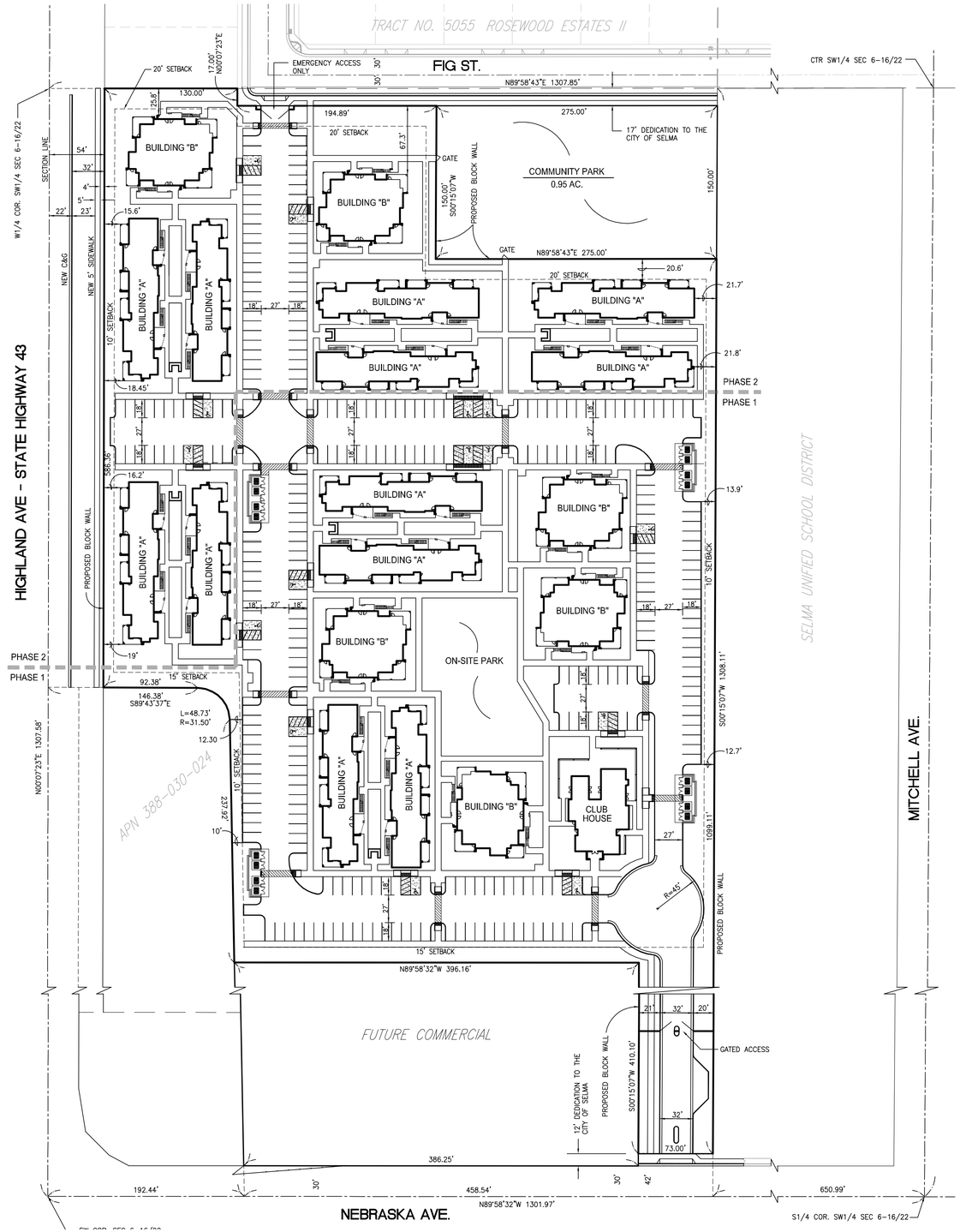
FIG ST.



NEBRASKA AVE

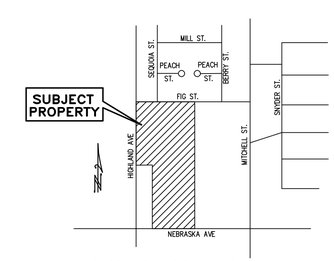


ACCESS DRIVE/ENTRANCE



BASIS OF BEARINGS

THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SEC. 6, T.16S., R.22E., M.D.B.&M. TAKEN AS N89°58'32"W AS PER RECORD OF SURVEY RECORDED IN BOOK 45 OF RECORD OF SURVEYS AT PAGE 4 FCR



Vicinity Map

NO SCALE

SITE PLAN

SCALE: AS NOTED	REV. NO.	REVISIONS	REV. BY / DATE
DATE: 9–28–22			
DRAWN BY: BM			
CHECKED BY:			

APPROVED BY

JESSE ALLEN WILLIAMS R.C.E. 64742

REGISTERED PROFESSIONAL ENGINEER JESSE A. WILLIAMS No. 64742 Exp. 6/30/23 CIVIL STATE OF CALIFORNIA

A.W. ENGINEERING
724 N. BEN MADDOX WAY SUITE A
VISALIA, CA. 93292

FOR

JAY SINGH

HIGHLAND AVE MULTI-FAMILY PROJECT
SELMA, CA.

SCALE: AS NOTED

JOB #: 21019

FLOOD ZONE: X

DRAWN BY: BM

SHEET 1 OF 1 SHEETS

Exhibit 2

Nebraska and Highland Development

ResidentialTrip Generation

LAND USE (ITE LAND USE CODE)	QUANTITY (DWELLING UNITS OR 1,000 SQUARE FEET)	DAILY TRIP ENDS (ADT)		WEEKDAY AM PEAK HOUR					WEEKDAY PM PEAK HOUR				
		RATE	VOLUME	RATE	IN:OUT SPLIT	VOLUME			RATE	IN:OUT SPLIT	VOLUME		
						IN	OUT	TOTAL			IN	OUT	TOTAL
220-Multifamily Housing (Low-Rise)	144	6.93	998	0.465	24:76	16	51	67	0.569	62:38	51	31	82

Exhibit 3
Nebraska and Highland Development
Retail Trip Generation

LAND USE (ITE LAND USE CODE)	QUANTITY (DWELLING UNITS OR 1,000 SQUARE FEET)	DAILY TRIP ENDS	(ADT)	WEEKDAY AM PEAK HOUR					WEEKDAY PM PEAK HOUR				
		RATE	VOLUME	RATE	IN:OUT SPLIT	VOLUME			RATE	IN:OUT SPLIT	VOLUME		
						IN	OUT	TOTAL			IN	OUT	TOTAL
Shopping Plaza (821)	52.28	67.52	3,530	1.722	62:38	56	34	90	5.184	49:51	133	138	271
SUBTOTAL TRIP GENERATION			**3,530**			**56**	**34**	**90**			**133**	**138**	**270**
Pass By Trips/Retail Only (30%)			**1,059**			**17**	**10**	**27**			**40**	**41**	**81**
TOTAL EXTERNAL TRIP GENERATION			**2,471**			**39**	**24**	**63**			**93**	**97**	**189**

ATTACHMENT

CALEEMOD MODEL RUN RESULTS

Nebraska and Highland Residental and Commercial Project

San Joaquin Valley Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	144.00	Dwelling Unit	9.00	144,000.00	412

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	OperationalYear	2018	2025
tblWoodstoves	NumberCatalytic	9.00	0.00
tblWoodstoves	NumberNoncatalytic	9.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7359	0.0662	1.0911	4.0000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	64.1284	64.1284	2.8700e-003	1.1400e-003	64.5409
Energy	0.0146	0.1244	0.0529	7.9000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	355.5289	355.5289	0.0123	4.6200e-003	357.2136
Mobile	0.2544	2.6354	2.6867	0.0157	1.0486	9.0800e-003	1.0577	0.2818	8.5000e-003	0.2903	0.0000	1,457.7193	1,457.7193	0.0757	0.0000	1,459.6109
Waste						0.0000	0.0000		0.0000	0.0000	13.4461	0.0000	13.4461	0.7946	0.0000	33.3122
Water						0.0000	0.0000		0.0000	0.0000	2.9765	20.7911	23.7677	0.3067	7.4100e-003	33.6433
Total	**1.0049**	**2.8260**	**3.8307**	**0.0169**	**1.0486**	**0.0294**	**1.0780**	**0.2818**	**0.0288**	**0.3107**	**16.4227**	**1,898.1677**	**1,914.5904**	**1.1922**	**0.0132**	**1,948.3208**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7359	0.0662	1.0911	4.0000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	64.1284	64.1284	2.8700e-003	1.1400e-003	64.5409
Energy	0.0146	0.1244	0.0529	7.9000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	355.5289	355.5289	0.0123	4.6200e-003	357.2136
Mobile	0.2544	2.6354	2.6867	0.0157	1.0486	9.0800e-003	1.0577	0.2818	8.5000e-003	0.2903	0.0000	1,457.7193	1,457.7193	0.0757	0.0000	1,459.6109
Waste						0.0000	0.0000		0.0000	0.0000	13.4461	0.0000	13.4461	0.7946	0.0000	33.3122
Water						0.0000	0.0000		0.0000	0.0000	2.9765	20.7911	23.7677	0.3067	7.4100e-003	33.6433
Total	**1.0049**	**2.8260**	**3.8307**	**0.0169**	**1.0486**	**0.0294**	**1.0780**	**0.2818**	**0.0288**	**0.3107**	**16.4227**	**1,898.1677**	**1,914.5904**	**1.1922**	**0.0132**	**1,948.3208**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	7/6/2023	7/5/2023	5	20	
2	Building Construction	Building Construction	7/6/2023	7/5/2023	5	230	
3	Demolition	Demolition	7/6/2023	7/5/2023	5	20	
4	Grading	Grading	7/6/2023	7/5/2023	5	20	
5	Paving	Paving	7/6/2023	7/5/2023	5	20	
6	Site Preparation	Site Preparation	7/6/2023	7/5/2023	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 291,600; Residential Outdoor: 97,200; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	21.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	104.00	15.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Demolition - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Demolition - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2544	2.6354	2.6867	0.0157	1.0486	9.0800e-003	1.0577	0.2818	8.5000e-003	0.2903	0.0000	1,457.7193	1,457.7193	0.0757	0.0000	1,459.6109
Unmitigated	0.2544	2.6354	2.6867	0.0157	1.0486	9.0800e-003	1.0577	0.2818	8.5000e-003	0.2903	0.0000	1,457.7193	1,457.7193	0.0757	0.0000	1,459.6109

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	948.96	1,031.04	874.08	2,752,893	2,752,893
Total	948.96	1,031.04	874.08	2,752,893	2,752,893

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	45.60	19.00	35.40	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.527283	0.030499	0.173802	0.106831	0.014644	0.004405	0.020987	0.111827	0.001768	0.001413	0.005010	0.000913	0.000619

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	211.4494	211.4494	9.5600e-003	1.9800e-003	212.2780
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	211.4494	211.4494	9.5600e-003	1.9800e-003	212.2780
NaturalGas Mitigated	0.0146	0.1244	0.0529	7.9000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	144.0794	144.0794	2.7600e-003	2.6400e-003	144.9356
NaturalGas Unmitigated	0.0146	0.1244	0.0529	7.9000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	144.0794	144.0794	2.7600e-003	2.6400e-003	144.9356

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	2.69995e+006	0.0146	0.1244	0.0529	7.9000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	144.0794	144.0794	2.7600e-003	2.6400e-003	144.9356
Total		**0.0146**	**0.1244**	**0.0529**	**7.9000e-004**		**0.0101**	**0.0101**		**0.0101**	**0.0101**	**0.0000**	**144.0794**	**144.0794**	**2.7600e-003**	**2.6400e-003**	**144.9356**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	2.69995e+006	0.0146	0.1244	0.0529	7.9000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	144.0794	144.0794	2.7600e-003	2.6400e-003	144.9356
Total		**0.0146**	**0.1244**	**0.0529**	**7.9000e-004**		**0.0101**	**0.0101**		**0.0101**	**0.0101**	**0.0000**	**144.0794**	**144.0794**	**2.7600e-003**	**2.6400e-003**	**144.9356**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	726852	211.4494	9.5600e-003	1.9800e-003	212.2780
Total		**211.4494**	**9.5600e-003**	**1.9800e-003**	**212.2780**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	726852	211.4494	9.5600e-003	1.9800e-003	212.2780
Total		**211.4494**	**9.5600e-003**	**1.9800e-003**	**212.2780**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7359	0.0662	1.0911	4.0000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	64.1284	64.1284	2.8700e-003	1.1400e-003	64.5409
Unmitigated	0.7359	0.0662	1.0911	4.0000e-004		0.0103	0.0103		0.0103	0.0103	0.0000	64.1284	64.1284	2.8700e-003	1.1400e-003	64.5409

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1352					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5624					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.3000e-003	0.0539	0.0229	3.4000e-004		4.3600e-003	4.3600e-003		4.3600e-003	4.3600e-003	0.0000	62.3819	62.3819	1.2000e-003	1.1400e-003	62.7526
Landscaping	0.0321	0.0123	1.0682	6.0000e-005		5.9300e-003	5.9300e-003		5.9300e-003	5.9300e-003	0.0000	1.7466	1.7466	1.6700e-003	0.0000	1.7884
Total	**0.7359**	**0.0662**	**1.0911**	**4.0000e-004**		**0.0103**	**0.0103**		**0.0103**	**0.0103**	**0.0000**	**64.1284**	**64.1284**	**2.8700e-003**	**1.1400e-003**	**64.5409**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1352					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5624					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.3000e-003	0.0539	0.0229	3.4000e-004		4.3600e-003	4.3600e-003		4.3600e-003	4.3600e-003	0.0000	62.3819	62.3819	1.2000e-003	1.1400e-003	62.7526
Landscaping	0.0321	0.0123	1.0682	6.0000e-005		5.9300e-003	5.9300e-003		5.9300e-003	5.9300e-003	0.0000	1.7466	1.7466	1.6700e-003	0.0000	1.7884
Total	**0.7359**	**0.0662**	**1.0911**	**4.0000e-004**		**0.0103**	**0.0103**		**0.0103**	**0.0103**	**0.0000**	**64.1284**	**64.1284**	**2.8700e-003**	**1.1400e-003**	**64.5409**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	23.7677	0.3067	7.4100e-003	33.6433
Unmitigated	23.7677	0.3067	7.4100e-003	33.6433

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	9.38218 / 5.91485	23.7677	0.3067	7.4100e-003	33.6433
Total		**23.7677**	**0.3067**	**7.4100e-003**	**33.6433**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	9.38218 / 5.91485	23.7677	0.3067	7.4100e-003	33.6433
Total		**23.7677**	**0.3067**	**7.4100e-003**	**33.6433**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	13.4461	0.7946	0.0000	33.3122
Unmitigated	13.4461	0.7946	0.0000	33.3122

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	66.24	13.4461	0.7946	0.0000	33.3122
Total		**13.4461**	**0.7946**	**0.0000**	**33.3122**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	66.24	13.4461	0.7946	0.0000	33.3122
Total		**13.4461**	**0.7946**	**0.0000**	**33.3122**

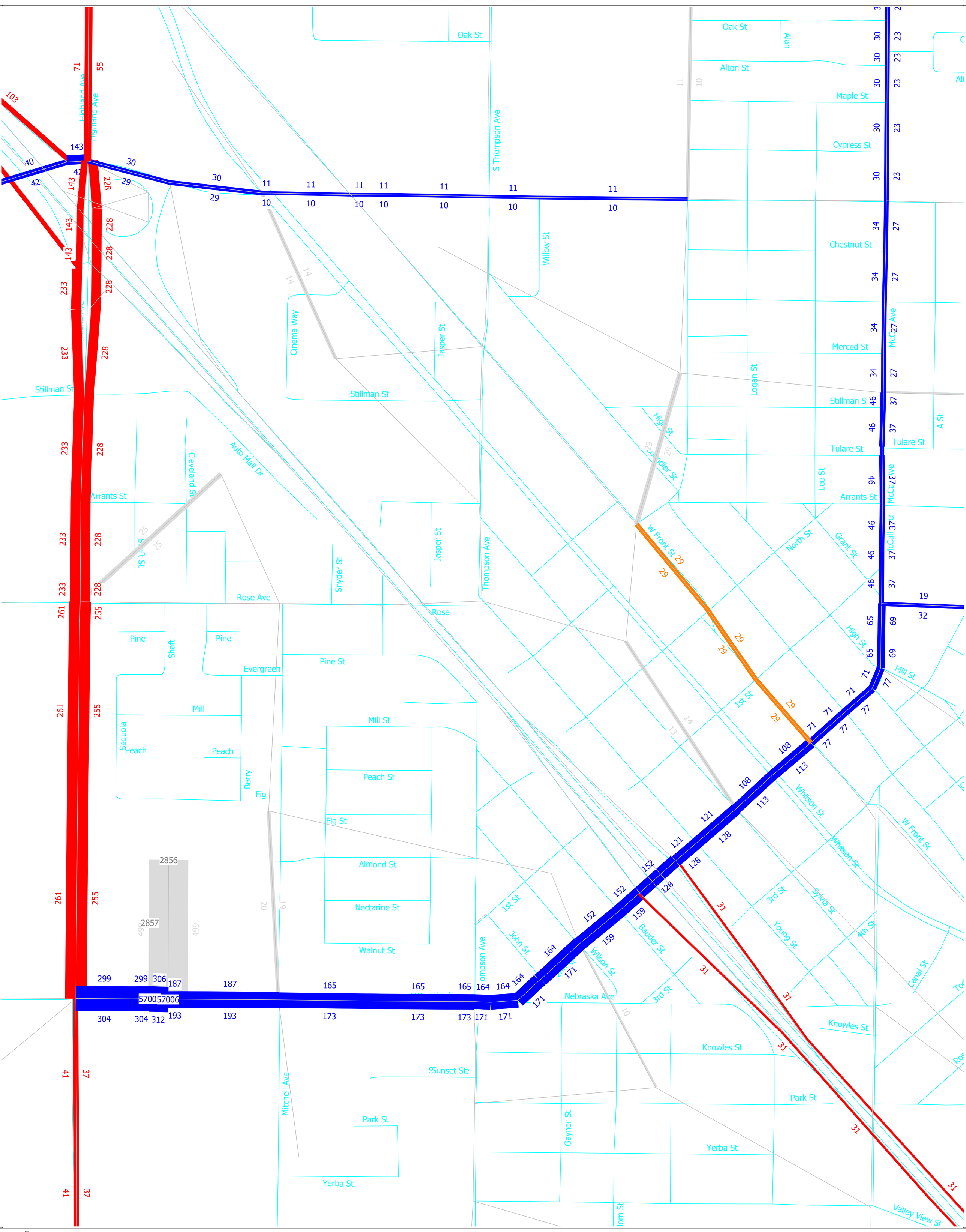
9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

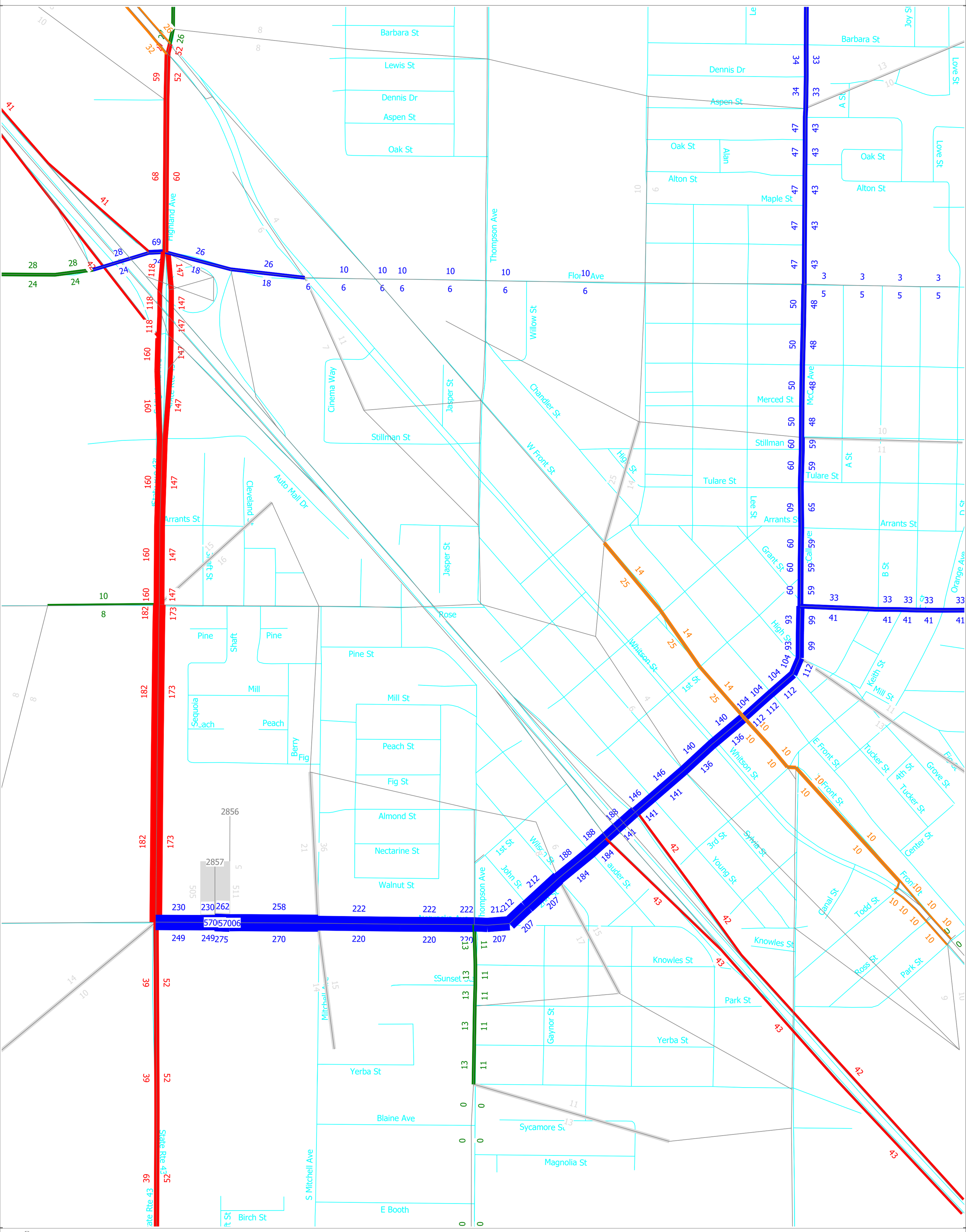
Appendix-E
Model Run

Nebraska and Highland Development
Residential Select Link



cube

Nebraska and Highland Development
Retail Select Link



Attachment E
Project Focused Air Quality Study and Response to City Comments

FOCUSED AIR QUALITY STUDY

Nebraska-Highland
Multifamily Residential and Retail Development
Selma, California

Prepared For:

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Prepared By:

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March 2023

Project 220505.0193

Trinity Consultants

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1. EXECUTIVE SUMMARY

1.1 Executive Summary

Trinity Consultants has completed a limited air quality assessment for the Nebraska-Highland Multifamily and Retail Development project (Project) located near the intersection of Highland Avenue and Nebraska Avenue in Selma, California. The Project consists of 144 multi-family dwelling units along with a 32,670 square foot commercial retail development.

This limited air quality assessment was prepared pursuant to the SJVAPCD's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI)[1], the California Environmental Quality Act (CEQA) (Public Resources Code 21000 to 21189) and the CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387).

1.2 Statement of Finding

Based on the thresholds established by the SJVAPCD's GAMAQI, the emissions estimates prepared pursuant to this limited air quality assessment do not exceed the SJVAPCD's established emissions thresholds and significance thresholds for all CEQA air quality determinations; this Project would therefore not pose a significant impact to the San Joaquin Valley Air Basin and would have a less than significant air quality impact.

[1] SJVAPCD, 2015, https://www.valleyair.org/transportation/GAMAQI.pdf.

2. PROJECT INFORMATION

2.1 Introduction

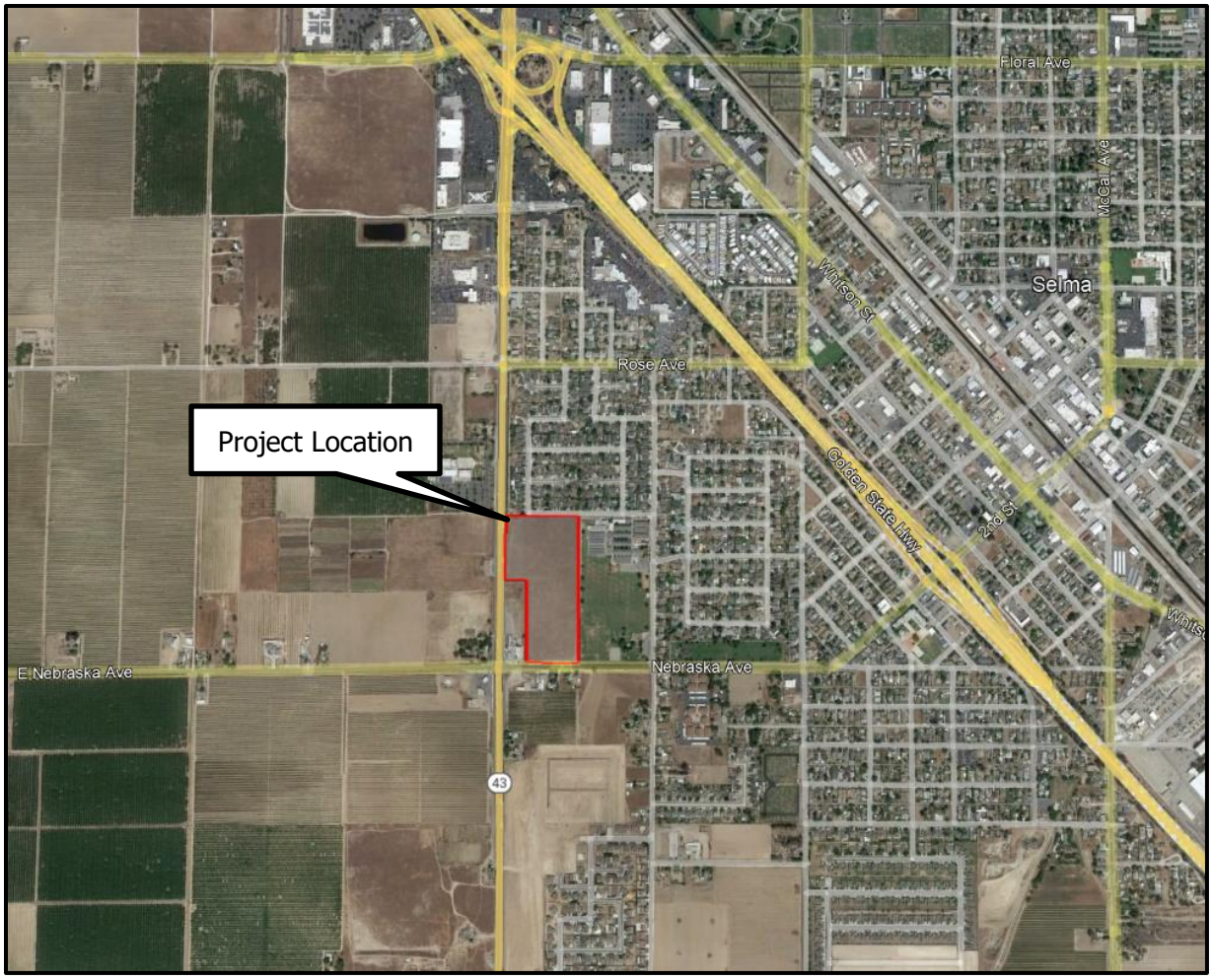
The Project site is located in the city of Selma, California near the intersection of Highland Avenue and Nebraska Avenue. The Project is a multi-family residential and retail development which includes 144 multi-family dwelling units along with a 32,670 square foot commercial retail development. The multi-family development will be built-out into 2 phases. The commercial retail development will be built out based upon market demand.

The first phase will include 10 buildings with a total of 2 stories and 8 units per building. The units will have a mix of 2 bedroom/1 bath, 2 bedroom/2 bath and 1 bedroom/1 bath. A clubhouse will be included with the first phase as well and include landscaping. It is anticipated that the clubhouse will have an exercise room, entertainment room along with a kitchen and restrooms. The clubhouse will also have office space for management. It is also anticipated that a park will be included and will have a pre-manufactured play structure as well as stationary picnic tables. Sidewalks will connect the site amenities to the residential units and will connect to off-site sidewalks, increasing pedestrian accessibility. The second phase will be a continuation of the first phase. It will also include 8 buildings with a total of 2 stories and 8 units per building. The units will have a mix of 2 bedroom/1 bath, 2 bedroom/2 bath and 1 bedroom/1 bath.

2.2 Project Location

The Project is located in the city of Selma, California near the intersection of Highland Avenue and Nebraska Avenue. Existing conditions of the site is undeveloped. The property is bordered to the west with State Route 43 (Highland), to the north with a single-family development and Fig Street, to the east with a school site and to the south Nebraska Avenue. There is an existing open and closed irrigation canal that borders the westerly property line. Irrigation facilities exist at the northwest corner. An existing convenience store and restaurant are located at the south and west of this property. **Figure 2-1** depicts the Project location within the City of Selma.

Figure 2-1. Project Location



3. AIR QUALITY IMPACTS THRESHOLDS AND EVALUATION METHODOLGY

3.1 SJVACPD Significance Criteria

Significance thresholds are based on the CEQA Appendix G Environmental Checklist Form (not included herein) and SJVAPCD air quality thresholds[2]. A potentially significant impact to air quality, as defined by the CEQA Checklist, would occur if the project caused one or more of the following to occur:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations; and/or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The SJVAPCD has identified quantitative emission thresholds to evaluate the potential air quality impacts of a project. Emissions exceeding the established significance thresholds would be considered to have a significant impact if not adequately mitigated to below the thresholds. The SJVAPCD air quality thresholds from the GAMAQI are presented in **Table 3-1**[2]. The SJVAPCD separates construction emissions from operational emissions, and further separates permitted operational emissions from non-permitted operational emissions, for determining significance thresholds for air pollutant emissions.

Table 3-1. SJVAPCD Air Quality Thresholds of Significance - Criteria Pollutants

Pollutant/Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment and Activities	Non-Permitted Equipment and Activities
	Emissions (tpy)	Emissions (tpy)	Emissions (tpy)
CO	100	100	100
NO_x	10	10	10
ROG	10	10	10
SO_x	27	27	27
PM_{10}	15	15	15
$PM_{2.5}$	15	15	15

Source: SJVAPCD 2015

Criteria pollutant emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2020.4.0[3]. This project would generate short-term construction criteria pollutant emissions. Additionally, there will be long-term operational criteria pollutant emissions due to the planned residential and commercial uses.

[2] SJVAPCD, 2015, 0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf (valleyair.org).

[3] California Air Pollution Control Officers Association (CAPCOA), 2021.

3.2 Thresholds for Ambient Air Quality Impacts

CEQA Guidelines – Appendix G (Environmental Checklist) states that a project that would "violate any air quality standard or contribute substantially to an existing or projected air quality violation" would be considered to create significant impacts on air quality. The EPA has established the Federal Prevention of Significant Deterioration (PSD) program to determine what comprises "significant impact levels" (SIL) to NAAQS attainment areas. A project's impacts are considered less than significant if emissions are below PSD SIL for a particular pollutant. When a SIL is exceeded, an additional "increment analysis" is required. The PSD SIL thresholds are used with ambient air quality modeling for a CEQA project to address whether the Project would "violate any air quality standard or contribute substantially to an existing or projected air quality violation." Ambient air quality emissions estimates below the PSD SIL thresholds would result in less than significant ambient air quality impacts for both a project and cumulative CEQA impact analysis. The SJVAB is classified as non-attainment for the O_3 NAAQS and, as such, is subject to "non-attainment new source review" (NSR). PSD SILs and increments are more stringent than the CAAQS or NAAQS and represent the most stringent thresholds of significance. As the Project would not include modification to the stationary source under NSR, it would not be subject to either PSD or NSR review.

3.3 Thresholds for Hazardous Air Pollutants

GAMAQI recommends that Lead Agencies consider situations wherein a new or modified source of TACs is proposed for a location near an existing residential area or other sensitive receptor when evaluating potential impacts related to TACs.

The SJVAPCD's GAMAQI states, "From a health risk perspective there are basically two types of land use projects that have the potential to cause long-term public health risk impacts:

- Type A Projects: Land use projects that will place new toxic sources in the vicinity of existing receptors,
- Type B Projects: Land use projects that will place new receptors in the vicinity of existing toxics sources"[4]

Table 3-2 presents the thresholds of significance used with toxic air contaminants when evaluating toxic air contaminants (TACs).

Table 3-2. Measures of Significance – Toxic Air Contaminants

Agency	Level	Description
Significance Thresholds Adopted for the Evaluation of Impacts Under CEQA		
SJVAPCD	Carcinogens	Maximally Exposed Individual risk **equals or exceeds** 20 in one million.
	Non-Carcinogens	**Acute**: Hazard Index **equals or exceeds** 1 for the Maximally Exposed Individual.
		Chronic: Hazard Index **equals or exceeds** 1 for the Maximally Exposed Individual.

Source: SJVAPCD 2015

[4] SJVAPCD, 2015, http://www.valleyair.org/transportation/0714-GAMAQI-TACs-Thresholds-of-Significance.pdf.

4. PROJECT-RELATED EMISSIONS

This document was prepared pursuant to the SJVAPCD's GAMAQI guidelines and provides a cursory review of the Project emissions to demonstrate that it would not exceed established air quality emissions thresholds.

4.1 Short-Term Criteria Pollutant Emissions

The Project applicant did not provide a list of specific construction equipment, the construction emissions were therefore based on the default CalEEMod equipment list accordingly for the proposed Project's land use type and development intensity. Applying model defaults as well as a conservative analysis approach, construction emissions were estimated as if construction started in March of 2023. The dates entered into the CalEEMod program may not represent the actual dates the equipment will operate; however, the total construction time is accurate, and therefore, all estimated emission totals are conservative and reflect a reasonable and legally sufficient estimate of potential impacts. All construction equipment activity levels were assumed based on the specified CalEEMod default values for hours used, type, number of equipment and horsepower.

Construction emission estimates also included the following options available in the model to reduce PM_{10} emissions in compliance with Air District Regulation VIII requirements:

- Water exposed area 3 times per day; and
- Reduce vehicle speed to less than 15 miles per hour.

Based on these anticipated activity levels, the Project construction activities would not exceed construction-related criteria pollutant thresholds (**Table 3-1**). Therefore, construction emissions were found to be less than significant, and no further evaluation is required.

Table 4-1. Construction Emissions

Emissions Source	Pollutant					
	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
2023 Construction	0.227	2.013	2.294	0.004	0.178	0.119
2024 Construction	0.953	1.701	2.093	0.004	0.159	0.101
2025 Construction	0.902	1.458	1.761	0.003	0.083	0.064
2026 Construction	0.262	1.594	1.978	0.003	0.106	0.080
2027 Construction	0.186	0.381	0.519	0.001	0.020	0.016
Maximum (tons/year)	**0.953**	**2.013**	**2.294**	**0.004**	**0.178**	**0.119**
Maximum (pounds/day)	7.305	15.427	17.582	0.032	1.360	0.913
SJVAPCD Construction Emissions Thresholds (tons/year)	10	10	100	27	15	15
Is Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

4.2 Long-Term Criteria Pollutant Emissions

Error! Reference source not found. presents the Project's long-term operations emissions generated from mobile, energy, and area sources as well as from water use and waste generation emissions. The following changes to default values were incorporated during the CalEEMod analysis:

- Lot acreage and building square footage adjusted to match Project specifics.
- Vehicle trips were adjusted to match the traffic study.
- SJVAPCD residential fleet mix for year 2024 was used for residential portion.

Operational emission estimates also included the following mitigation measures even though the project was less than significant before mitigation:

- Improve walkability design.
- Improve Destination Accessibility.
- Increase Transit Accessibility.
- Improve Pedestrian Network.
- Use electric lawnmower, leaf blower, and chainsaw (3% per SJVAPCD).
- No Hearths Installed.

Table 4-2. Operational Emissions

Emissions Source	Pollutant					
	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Operational Emissions (pounds/day)	9.819	8.223	46.362	0.104	10.538	2.928
Operational Emissions (tons/year)	1.792	1.501	8.461	0.019	1.923	0.534
SJVAPCD Operational Emissions Thresholds (tons/year)	10	10	100	27	15	15
Is Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

As calculated (see **6.Appendix AA**), the long-term operational emissions associated with the proposed Project would be less than SJVAPCD significance threshold levels and would, therefore, not pose a significant impact to criteria air pollutants.

4.3 Greenhouse Gas Emissions

The Project's greenhouse gas (GHG) emissions are primarily from mobile source activities. Not all GHGs exhibit the same ability to induce climate change; as a result, GHG contributions are commonly quantified as carbon dioxide equivalents (CO_2e) (**see Attachment A**). The proposed Project's operational CO_2e emissions were estimated using CalEEMod. These emissions are summarized in **Table 4-3**.

Table 4-3. Estimated Annual Greenhouse Gas Emissions

	CO_2 Emissions metric tons	CH_4 Emissions metric tons	N_2O Emissions metric tons	CO_2e Emissions metric tons
Project Operations	1,936.28	1.73	0.12	2,013.75

In the decade after SJVAPCD adopted their Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA, several new laws and executive orders were adopted that require additional reductions in years after 2020. For instance, Senate Bill 32 requires that GHG emissions

be 40% less than 1990 levels by 2030. More drastic still, Senate Bill 100 which was signed by the Governor recently requires 100% zero-carbon electricity by 2045. On the day SB 100 was signed into law, the Governor also signed Executive Order B-55-18 which commits California to total, economy-wide carbon neutrality by 2045. Clearly, the 2009 Guidance may be somewhat inadequate in producing a meaningful comparison by today's standards which propose a grand vision that, if achieved, would fundamentally change how business is conducted and citizens live in the State. Thus, as discussed in the most recent updates to the Scoping Plan, objectives of the Scoping Plan affect entire sectors of the economy and it no longer makes sense to evaluate GHG emissions on a project-level.

For these reasons, Project GHG emissions levels presented in Table 4-3 are primarily for disclosure purposes. The Project's largest contributors to GHG emissions are from electricity and exhaust from transportation fuels. Electricity and transportation fuels are, in effect, regulated by requiring providers and importers of electricity and fuel to participate in the GHG Cap-and-Trade Program and other Programs (e.g., low carbon fuel standard, renewable portfolio standard, etc.). Each such sector-wide program exists within the framework of AB 32 and its descendant laws the purpose of which is to achieve GHG emissions reductions consistent with the AB 32 Scoping Plan.

The Project would generate GHGs from electricity use and combustion of gasoline/diesel fuels, each of which is regulated near the top of the supply-chain. As such, each citizen of California (including those creating emissions of this Project) will have no choice but to purchase electricity and fuels produced in a way that is acceptable to the California market. Thus, Project GHG emissions will be consistent with the relevant plan (i.e., AB 32 Scoping Plan). The Project would meet its fair share of the cost to mitigate the cumulative impact of global climate change because energy purchases are from the California market. Thus, consumers of electricity and transportation fuels are in effect regulated by higher level emissions restrictions on the producers of these energy sources. Therefore, the Project would have a less than significant impact on applicable GHG reduction plans and the Project's contribution to cumulative global climate change impacts would not be cumulatively considerable.

4.4 Potential Impacts to Visibility to Nearby Class 1 Areas

It should be noted that visibility impact analyses are not usually conducted for area sources. The recommended analysis methodology was initially intended for stationary sources of emissions which were subject to the Prevention of Significant Deterioration (PSD) requirements in 40 CFR Part 60. Since the Project's emissions are predicted to be significantly less than the PSD threshold levels, an impact at either the Dome Land Wilderness or the Sequoia National Park Areas (the two nearest Class 1 areas to the Project) is extremely unlikely. Therefore, based on the Project's predicted emissions, the Project is not expected to have any adverse impact to visibility at any Class 1 Area.

4.5 Potential Odor Impacts

The proposed Project is residential and commercial land uses. Expected uses are not known to be a source of nuisance odors and are not listed in Table 6 of the SJVAPCD's GAMAQI[5]. The Project is therefore not anticipated to have substantial odor impacts. The Project is therefore anticipated to have a less than significant odor impact.

[5] SJVAPCD GAMAQI, Section 8.6, Table 6, Page 103.

4.6 Ambient Air Quality Impacts

As stated in the of GAMAQI[6], SJVAPCD has developed screening levels for requiring an Ambient Air Quality Analysis (AAQA). The SJVAPCD recommends that an AAQA be performed for all criteria pollutants when emissions of any criteria pollutant resulting from project construction or operational activities exceed the 100 pounds per day screening level, after compliance with Rule 9510 requirements and implementation of all enforceable mitigation measures.

As shown above in **Table 4-1** and **Table 4-2**, average daily emissions for construction and operational activities associated with this Project would not exceed 100 pounds per day. Therefore, an AAQA is not required for this Project.

4.7 Toxic Air Contaminant (TAC) Impacts

TACs, as defined by the California Health & Safety Code (CH&SC) §44321, are listed in Appendices AI and AII in AB 2588 Air Toxic "Hot Spots" and Assessment Act's Emissions Inventory Criteria and Guideline Regulation document. SJVAPCD's risk management objectives for permitting and CEQA are as follows[7]:

- Minimize health risks from new and modified sources of air pollution.
- Health risks from new and modified sources shall not be significant relative to the background risk levels and other risk levels that are typically accepted throughout the community.
- Avoid unreasonable restrictions on permitting.

To predict the potential health risk to the population attributable to emissions of toxic air contaminants (TACs) from the proposed Project, ambient air concentrations were predicted with dispersion modeling to arrive at a conservative estimate of increased individual carcinogenic risk that might occur as a result of continuous exposure over a 4-year construction timeline each year from 2023 to 2027 and continuous exposure over a 70-year operational timeline. Similarly, predicted concentrations were used to calculate non-cancer chronic and acute hazard indices (HIs), which are the ratio of expected exposure to acceptable exposure. The basis for evaluating potential health risk is the identification of sources with increased TACs.

Health risk is determined using the Hotspots Analysis and Reporting Program (HARP2) software distributed by the CARB; HARP2 requires peak 1-hour emission rates and annual-averaged emission rates for all pollutants for each modeling source[8]. Assumptions used to calculate the emission rates for the proposed Project are outlined below.

The most recent version of EPA's AMS/EPA Regulatory Model - AERMOD was used to predict the dispersion of emissions from the proposed Project. The analysis employed all of the regulatory default AERMOD model keyword parameters, including elevated terrain options.

For construction health impacts, diesel combustion emissions from diesel on-site construction equipment were modeled as an area source for on-site construction activity on the property. Diesel particulate matter was calculated using CalEEMod for on-site construction equipment. A unit emission rate of 1 grams/second (g/sec) was input to AERMOD for the area source.

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[6] SJVAPCD GAMAQI, Section 8.4.4, Page 96-97.

[7] SJVAPCD GAMAQI, Section 8.5.2, Page 100.

[8] CARB, 2015, https://ww2.arb.ca.gov/sites/default/files/classic/toxics/harp/docs2/harp2admrtuserguide.pdf

For operational emissions it was assumed that each commercial building would contain a restaurant and dry cleaner in order to be conservative. In addition to the hypothetical future uses, the existing nearby gas station and restaurant toxic emissions were also included in the analysis. Lastly, DPM emissions from truck trips and idling at the commercial buildings were included. Truck travel DPM emissions were modeled as lines of volume sources. Truck idling, gas station breathing and loading losses, dry cleaners and restaurant emissions were modeled as point sources. Gas station refueling and spillage emissions were modeled as volume sources. A unit emission rate of 1 grams/second (g/sec) was input to AERMOD for all operational sources.

Discrete receptors were placed on scattered agricultural houses and businesses within close proximity of the Project site. Receptor grids were placed over the more densely populated areas mostly to the east and south of the Project site. A total of 873 discrete off-site receptors analyzed. Elevated terrain options were employed even though there is not complex terrain in the Project area.

SJVAPCD-provided, AERMET UStar processed meteorological datasets for the Fresno monitoring station, calendar years 2013 through 2017 was input to AERMOD[9]. This was the most recent available dataset available at the time the modeling was conducted. Rural dispersion parameters were used because the operation and the majority of the land surrounding the facility is considered "rural" under the Auer land use classification method (Auer 1978).

Plot files generated by AERMOD were uploaded to the Air Dispersion Modeling and Risk Assessment Tool (ADMRT) program in the Hotspots Analysis and Reporting Program Version 2 (HARP 2)[8]. ADMRT post-processing was used to assess the potential for excess cancer risk and chronic and acute non-cancer effects using the most recent health effects data from the California EPA Office of Environmental Health Hazard Assessment (OEHHA). HARP2 site parameters were set for the mandatory minimum pathways of inhalation, soil ingestion, dermal, and mother's milk. Risk reports were generated using the derived OEHHA analysis method for carcinogenic risk and non-carcinogenic chronic and acute risk. Site parameters are included in the HARP2 output files. Total cancer risk was predicted for each receptor. A hazard index was computed for chronic non-cancer health effects for each applicable endpoint and each receptor.

SJVAPCD has set the level of significance for carcinogenic risk at twenty in one million, which is understood as the possibility of causing twenty additional cancer cases in a population of one million people. The level of significance for chronic and acute non-cancer risk is a hazard index of 1.0. All receptors were modeled as residential receptors.

The carcinogenic risk and the health hazard index (HI) for chronic non-cancer risk at the point of maximum impact (PMI) do not exceed the significance levels of twenty in one million (20×10^{-6}) and 1.0, respectively for the proposed Project. The PMIs, are identified by receptor location and risk, and are provided in **Table 4-4**. The electronic AERMOD and HARP2 output files are provided in **6.Appendix BB**.

Table 4-4. Potential Maximum Impacts Predicted by HARP

	Value	UTM East	UTM North
Excess Cancer Risk	1.78E-05	264850.2	4049739.6
Chronic Hazard Index	2.68E-02	264850.2	4049739.6
Acute Hazard index	1.04E-01	264793.2	4049501.3

[9] SJVAPCD, 2018, ftp://ftp2.valleyair.org/public/Modeling/Meteorological_Data/AERMET%20v18081_UStar/

As shown above in **Table 4-4**, the maximum predicted cancer risk for the proposed Project is 1.78E-05. The maximum chronic and acute non-cancer hazard index for the proposed Project are 0.027 and 0.104, respectively. Since the PMI remained below the significance threshold for cancer and chronic risk, this Project would not have an adverse effect to any of the surrounding communities.

The potential health risk attributable to the proposed Project is determined to be *less than significant* based on the following conclusions:

1. Potential carcinogenic risk from the proposed Project is below the significance level of twenty in a million at each of the modeled receptors; and
2. The hazard index for the potential chronic non-cancer risk from the proposed Project is below the significance level of 1.0 at each of the modeled receptors.
3. The hazard index for the potential acute non-cancer risk from the proposed Project is below the significance level of 1.0 at each of the modeled receptors.

Therefore, potential risk to the population attributable to emissions of TACs from the proposed Project would be less than significant.

4.8 Potential Impact on Sensitive Receptors

Sensitive receptors are defined as areas where young children, chronically ill individuals, the elderly or people who are more sensitive than the general population reside. Schools, hospitals, nursing homes and daycare centers are locations where sensitive receptors would likely reside. There are 19 known non-residential sensitive receptors within 2 miles of the Project site shown below in **Table 4-5**.

Table 4-5. Sensitive Receptors Located < 2 Miles from Project

Receptor	Type of Facility	Distance from Project in miles	Direction from Project
Eric White Elementary school	K-6 Public	0.01	E
Heartland High	Continuation School	0.45	NE
Selma Independent	7-12 Public	0.45	NE
George Washington Elementary	K-6 Public	0.52	E
Early Childhood Discovery Center	Daycare	0.75	E
Selma Early Childhood Education Center	Daycare	0.9	E
James Garfield Elementary	K-6 Public	1.01	NE
Young Learners Enrichment Center	PK Private	1.01	NE
Selma High School	9-12 Public	1.07	NE
Country Care, Inc.	Assisted Living Facility	1.16	S
Theodore Roosevelt Elementary	K-6 Public	1.26	NE
Woodrow Wilson Elementary	K-6 Public	1.29	NE
Valley Christian Preschool	PK Private	1.38	NE
Andrew Jackson Elementary	K-6 Public	1.42	NE
Bethel Lutheran Home, Inc.	Assisted Living Facility	1.43	NE
Opportunity Through Education	PK Public	1.46	NE
Abraham Lincoln Middle	7-8 Public	1.71	NE
Herron House Preschool Center	PK Public	1.74	NE
Joyful Beginnings Enrichment Center	PK Public	1.75	NE

4.9 Cumulative Impacts

Cumulative impacts were also evaluated; however, cumulative emissions were not quantified because no other tentative projects were found within a one-mile radius of the Proposed Project that provided enough project detail information to accurately estimate emissions. Owing to the inherently cumulative nature of air quality impacts, the threshold for whether a project would make a cumulatively considerable contribution to a significant cumulative impact is currently based on whether the proposed Project would exceed established project-level thresholds. As such, a qualitative evaluation of the cumulative projects supports a finding that the Project's contribution would not be cumulatively considerable because the proposed Project's incremental emissions increase would be less than significant.

5. CONCLUSIONS

Based on the criteria established by the SJVAPCD's GAMAQI and CEQA Appendix G Environmental Checklist Form, the proposed Project does not meet the minimum standards to require a full Air Quality Impact Analysis. Furthermore, the Project as proposed would not exceed the SJVAPCD's criteria air pollutant emission levels and would generate *less than significant air quality impacts*.

6. REFERENCES

California Air Pollution Control Officers Association (CAPCOA). 2021. California Emissions Estimator Model tm (CalEEMod), version 2020.4.0

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APPENDIX A. CALEEMOD EMISSIONS ESTIMATES OUTPUT FILES

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

City Park

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.00	Acre	1.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - No proposed structures to be built

Construction Phase -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblLandUse	LandUseSquareFeet	43,560.00	0.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0350	0.3513	0.3858	6.3000e-004	6.0200e-003	0.0174	0.0234	2.7200e-003	0.0160	0.0187	0.0000	55.1069	55.1069	0.0175	1.0000e-005	55.5468
Maximum	**0.0350**	**0.3513**	**0.3858**	**6.3000e-004**	**6.0200e-003**	**0.0174**	**0.0234**	**2.7200e-003**	**0.0160**	**0.0187**	**0.0000**	**55.1069**	**55.1069**	**0.0175**	**1.0000e-005**	**55.5468**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0350	0.3513	0.3858	6.3000e-004	2.6200e-003	0.0174	0.0200	1.1300e-003	0.0160	0.0172	0.0000	55.1068	55.1068	0.0175	1.0000e-005	55.5467
Maximum	**0.0350**	**0.3513**	**0.3858**	**6.3000e-004**	**2.6200e-003**	**0.0174**	**0.0200**	**1.1300e-003**	**0.0160**	**0.0172**	**0.0000**	**55.1068**	**55.1068**	**0.0175**	**1.0000e-005**	**55.5467**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**56.48**	**0.00**	**14.57**	**58.46**	**0.00**	**8.44**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**3-1-2023**	**5-31-2023**	0.2345	0.2345
2	**6-1-2023**	**8-31-2023**	0.1477	0.1477
		Highest	0.2345	0.2345

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	5.3000e-004	7.9000e-004	4.4600e-003	1.0000e-005	9.2000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.8989	0.8989	6.0000e-005	5.0000e-005	0.9160
Waste						0.0000	0.0000		0.0000	0.0000	0.0183	0.0000	0.0183	1.0800e-003	0.0000	0.0453
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.3858	0.3858	6.0000e-005	1.0000e-005	0.3897
Total	**5.3000e-004**	**7.9000e-004**	**4.4700e-003**	**1.0000e-005**	**9.2000e-004**	**1.0000e-005**	**9.3000e-004**	**2.5000e-004**	**1.0000e-005**	**2.5000e-004**	**0.0183**	**1.2847**	**1.3030**	**1.2000e-003**	**6.0000e-005**	**1.3509**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	5.2000e-004	7.8000e-004	4.3900e-003	1.0000e-005	9.0000e-004	1.0000e-005	9.1000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.8816	0.8816	5.0000e-005	5.0000e-005	0.8985
Waste						0.0000	0.0000		0.0000	0.0000	0.0183	0.0000	0.0183	1.0800e-003	0.0000	0.0453
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.3858	0.3858	6.0000e-005	1.0000e-005	0.3897
Total	**5.2000e-004**	**7.8000e-004**	**4.4000e-003**	**1.0000e-005**	**9.0000e-004**	**1.0000e-005**	**9.1000e-004**	**2.4000e-004**	**1.0000e-005**	**2.5000e-004**	**0.0183**	**1.2675**	**1.2857**	**1.1900e-003**	**6.0000e-005**	**1.3334**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.89**	**1.27**	**1.57**	**0.00**	**2.17**	**0.00**	**2.15**	**4.00**	**0.00**	**0.00**	**0.00**	**1.34**	**1.32**	**0.83**	**0.00**	**1.29**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2023	3/1/2023	5	1	
2	Grading	Grading	3/2/2023	3/3/2023	5	2	
3	Building Construction	Building Construction	3/4/2023	7/21/2023	5	100	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Paving	Paving	7/22/2023	7/28/2023	5	5	
5	Architectural Coating	Architectural Coating	7/29/2023	8/4/2023	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Graders	1	6.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-004	3.0900e-003	1.9600e-003	0.0000		1.1000e-004	1.1000e-004		1.0000e-004	1.0000e-004	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4309
Total	**2.7000e-004**	**3.0900e-003**	**1.9600e-003**	**0.0000**	**2.7000e-004**	**1.1000e-004**	**3.8000e-004**	**3.0000e-005**	**1.0000e-004**	**1.3000e-004**	**0.0000**	**0.4275**	**0.4275**	**1.4000e-004**	**0.0000**	**0.4309**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0157	0.0157	0.0000	0.0000	0.0159
Total	**1.0000e-005**	**1.0000e-005**	**6.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0157**	**0.0157**	**0.0000**	**0.0000**	**0.0159**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-004	0.0000	1.0000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-004	3.0900e-003	1.9600e-003	0.0000		1.1000e-004	1.1000e-004		1.0000e-004	1.0000e-004	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4309
Total	**2.7000e-004**	**3.0900e-003**	**1.9600e-003**	**0.0000**	**1.0000e-004**	**1.1000e-004**	**2.1000e-004**	**1.0000e-005**	**1.0000e-004**	**1.1000e-004**	**0.0000**	**0.4275**	**0.4275**	**1.4000e-004**	**0.0000**	**0.4309**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0157	0.0157	0.0000	0.0000	0.0159
Total	**1.0000e-005**	**1.0000e-005**	**6.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0157**	**0.0157**	**0.0000**	**0.0000**	**0.0159**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3100e-003	0.0000	5.3100e-003	2.5700e-003	0.0000	2.5700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3000e-004	0.0102	5.5500e-003	1.0000e-005		4.2000e-004	4.2000e-004		3.9000e-004	3.9000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2481
Total	**9.3000e-004**	**0.0102**	**5.5500e-003**	**1.0000e-005**	**5.3100e-003**	**4.2000e-004**	**5.7300e-003**	**2.5700e-003**	**3.9000e-004**	**2.9600e-003**	**0.0000**	**1.2381**	**1.2381**	**4.0000e-004**	**0.0000**	**1.2481**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	1.9000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0503	0.0503	0.0000	0.0000	0.0508
Total	**2.0000e-005**	**2.0000e-005**	**1.9000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0503**	**0.0503**	**0.0000**	**0.0000**	**0.0508**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.0700e-003	0.0000	2.0700e-003	1.0000e-003	0.0000	1.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3000e-004	0.0102	5.5500e-003	1.0000e-005		4.2000e-004	4.2000e-004		3.9000e-004	3.9000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2481
Total	**9.3000e-004**	**0.0102**	**5.5500e-003**	**1.0000e-005**	**2.0700e-003**	**4.2000e-004**	**2.4900e-003**	**1.0000e-003**	**3.9000e-004**	**1.3900e-003**	**0.0000**	**1.2381**	**1.2381**	**4.0000e-004**	**0.0000**	**1.2481**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	1.9000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0503	0.0503	0.0000	0.0000	0.0508
Total	**2.0000e-005**	**2.0000e-005**	**1.9000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0503**	**0.0503**	**0.0000**	**0.0000**	**0.0508**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0316	0.3209	0.3549	5.7000e-004		0.0160	0.0160		0.0147	0.0147	0.0000	50.1042	50.1042	0.0162	0.0000	50.5093
Total	**0.0316**	**0.3209**	**0.3549**	**5.7000e-004**		**0.0160**	**0.0160**		**0.0147**	**0.0147**	**0.0000**	**50.1042**	**50.1042**	**0.0162**	**0.0000**	**50.5093**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0316	0.3209	0.3549	5.7000e-004		0.0160	0.0160		0.0147	0.0147	0.0000	50.1042	50.1042	0.0162	0.0000	50.5093
Total	**0.0316**	**0.3209**	**0.3549**	**5.7000e-004**		**0.0160**	**0.0160**		**0.0147**	**0.0147**	**0.0000**	**50.1042**	**50.1042**	**0.0162**	**0.0000**	**50.5093**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.5300e-003	0.0138	0.0176	3.0000e-005		6.6000e-004	6.6000e-004		6.2000e-004	6.2000e-004	0.0000	2.3498	2.3498	6.8000e-004	0.0000	2.3669
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5300e-003**	**0.0138**	**0.0176**	**3.0000e-005**		**6.6000e-004**	**6.6000e-004**		**6.2000e-004**	**6.2000e-004**	**0.0000**	**2.3498**	**2.3498**	**6.8000e-004**	**0.0000**	**2.3669**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	9.0000e-005	1.0600e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2829	0.2829	1.0000e-005	1.0000e-005	0.2856
Total	**1.4000e-004**	**9.0000e-005**	**1.0600e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2829**	**0.2829**	**1.0000e-005**	**1.0000e-005**	**0.2856**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.5300e-003	0.0138	0.0176	3.0000e-005		6.6000e-004	6.6000e-004		6.2000e-004	6.2000e-004	0.0000	2.3498	2.3498	6.8000e-004	0.0000	2.3669
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5300e-003**	**0.0138**	**0.0176**	**3.0000e-005**		**6.6000e-004**	**6.6000e-004**		**6.2000e-004**	**6.2000e-004**	**0.0000**	**2.3498**	**2.3498**	**6.8000e-004**	**0.0000**	**2.3669**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	9.0000e-005	1.0600e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2829	0.2829	1.0000e-005	1.0000e-005	0.2856
Total	**1.4000e-004**	**9.0000e-005**	**1.0600e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2829**	**0.2829**	**1.0000e-005**	**1.0000e-005**	**0.2856**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	3.2600e-003	4.5300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6393
Total	**4.8000e-004**	**3.2600e-003**	**4.5300e-003**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6393**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	3.2600e-003	4.5300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6393
Total	**4.8000e-004**	**3.2600e-003**	**4.5300e-003**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6393**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.2000e-004	7.8000e-004	4.3900e-003	1.0000e-005	9.0000e-004	1.0000e-005	9.1000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.8816	0.8816	5.0000e-005	5.0000e-005	0.8985
Unmitigated	5.3000e-004	7.9000e-004	4.4600e-003	1.0000e-005	9.2000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.8989	0.8989	6.0000e-005	5.0000e-005	0.9160

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.78	1.96	2.19	2,455	2,406
Total	0.78	1.96	2.19	2,455	2,406

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.510058	0.053037	0.175964	0.161396	0.026773	0.007006	0.013819	0.022114	0.000717	0.000291	0.024206	0.001529	0.003090

5.0 Energy Detail

Historical Energy Use: N

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.3858	6.0000e-005	1.0000e-005	0.3897
Unmitigated	0.3858	6.0000e-005	1.0000e-005	0.3897

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.19148	0.3858	6.0000e-005	1.0000e-005	0.3897
Total		**0.3858**	**6.0000e-005**	**1.0000e-005**	**0.3897**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.19148	0.3858	6.0000e-005	1.0000e-005	0.3897
Total		**0.3858**	**6.0000e-005**	**1.0000e-005**	**0.3897**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0183	1.0800e-003	0.0000	0.0453
Unmitigated	0.0183	1.0800e-003	0.0000	0.0453

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.09	0.0183	1.0800e-003	0.0000	0.0453
Total		**0.0183**	**1.0800e-003**	**0.0000**	**0.0453**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.09	0.0183	1.0800e-003	0.0000	0.0453
Total		**0.0183**	**1.0800e-003**	**0.0000**	**0.0453**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Highland & Nebraska - Phase 1 - Residential

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	72.00	Dwelling Unit	4.72	80,539.00	206

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage and square feet provided by Applicant.

Construction Phase -

Vehicle Trips - Traffic study provided by Applicant.

Fleet Mix - District Accepted Fleet Mix for Residential Projects - 2024

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFleetMix	HHD	0.02	0.02

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	LDA	0.52	0.53
tblFleetMix	LDT1	0.05	0.21
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	0.03	9.0000e-004
tblFleetMix	LHD2	6.8290e-003	9.0000e-004
tblFleetMix	MCY	0.02	2.5000e-003
tblFleetMix	MDV	0.16	0.06
tblFleetMix	MH	2.9750e-003	2.0000e-003
tblFleetMix	MHD	0.01	8.0000e-003
tblFleetMix	OBUS	7.0700e-004	0.00
tblFleetMix	SBUS	1.4960e-003	2.0000e-004
tblFleetMix	UBUS	2.8900e-004	4.3000e-003
tblLandUse	LandUseSquareFeet	72,000.00	80,539.00
tblLandUse	LotAcreage	4.50	4.72
tblVehicleTrips	ST_TR	8.14	6.93
tblVehicleTrips	SU_TR	6.28	6.93
tblVehicleTrips	WD_TR	7.32	6.93
tblWoodstoves	NumberCatalytic	4.72	0.00
tblWoodstoves	NumberNoncatalytic	4.72	0.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1924	1.6619	1.9086	3.5100e-003	0.1264	0.0784	0.2048	0.0521	0.0737	0.1257	0.0000	306.3284	306.3284	0.0637	3.3600e-003	308.9241
2024	0.7866	0.2595	0.3497	6.1000e-004	8.0200e-003	0.0119	0.0199	2.1500e-003	0.0111	0.0133	0.0000	53.5056	53.5056	0.0118	4.4000e-004	53.9311
Maximum	**0.7866**	**1.6619**	**1.9086**	**3.5100e-003**	**0.1264**	**0.0784**	**0.2048**	**0.0521**	**0.0737**	**0.1257**	**0.0000**	**306.3284**	**306.3284**	**0.0637**	**3.3600e-003**	**308.9241**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1924	1.6619	1.9086	3.5100e-003	0.0791	0.0784	0.1575	0.0283	0.0737	0.1020	0.0000	306.3281	306.3281	0.0637	3.3600e-003	308.9238
2024	0.7866	0.2595	0.3497	6.1000e-004	8.0200e-003	0.0119	0.0199	2.1500e-003	0.0111	0.0133	0.0000	53.5055	53.5055	0.0118	4.4000e-004	53.9311
Maximum	**0.7866**	**1.6619**	**1.9086**	**3.5100e-003**	**0.0791**	**0.0784**	**0.1575**	**0.0283**	**0.0737**	**0.1020**	**0.0000**	**306.3281**	**306.3281**	**0.0637**	**3.3600e-003**	**308.9238**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**35.17**	**0.00**	**21.04**	**43.82**	**0.00**	**17.09**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**3-1-2023**	**5-31-2023**	0.5905	0.5905
2	**6-1-2023**	**8-31-2023**	0.5450	0.5450
3	**9-1-2023**	**11-30-2023**	0.5395	0.5395
4	**12-1-2023**	**2-29-2024**	0.4834	0.4834
5	**3-1-2024**	**5-31-2024**	0.7629	0.7629
		Highest	0.7629	0.7629

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4094	0.0331	0.5458	2.0000e-004		5.1400e-003	5.1400e-003		5.1400e-003	5.1400e-003	0.0000	32.0642	32.0642	1.4400e-003	5.7000e-004	32.2705
Energy	5.3000e-003	0.0453	0.0193	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	79.9542	79.9542	5.4600e-003	1.5000e-003	80.5379
Mobile	0.1512	0.2827	1.7939	5.0600e-003	0.5445	3.6600e-003	0.5482	0.1451	3.4100e-003	0.1485	0.0000	473.3478	473.3478	0.0349	0.0232	481.1450
Waste						0.0000	0.0000		0.0000	0.0000	6.7231	0.0000	6.7231	0.3973	0.0000	16.6561
Water						0.0000	0.0000		0.0000	0.0000	1.4883	3.3063	4.7946	0.1534	3.6700e-003	9.7243
Total	**0.5659**	**0.3611**	**2.3590**	**5.5500e-003**	**0.5445**	**0.0125**	**0.5570**	**0.1451**	**0.0122**	**0.1573**	**8.2113**	**588.6725**	**596.8839**	**0.5925**	**0.0290**	**620.3339**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4060	6.1200e-003	0.5305	3.0000e-005		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	0.8654	0.8654	8.3000e-004	0.0000	0.8861
Energy	5.3000e-003	0.0453	0.0193	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	79.9542	79.9542	5.4600e-003	1.5000e-003	80.5379
Mobile	0.1480	0.2590	1.6387	4.4800e-003	0.4803	3.2700e-003	0.4835	0.1280	3.0500e-003	0.1310	0.0000	419.2573	419.2573	0.0320	0.0211	426.3551
Waste						0.0000	0.0000		0.0000	0.0000	6.7231	0.0000	6.7231	0.3973	0.0000	16.6561
Water						0.0000	0.0000		0.0000	0.0000	1.4883	3.3063	4.7946	0.1534	3.6700e-003	9.7243
Total	**0.5593**	**0.3104**	**2.1885**	**4.8000e-003**	**0.4803**	**9.8700e-003**	**0.4901**	**0.1280**	**9.6500e-003**	**0.1376**	**8.2113**	**503.3832**	**511.5945**	**0.5890**	**0.0263**	**534.1595**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.16**	**14.05**	**7.23**	**13.51**	**11.80**	**20.79**	**12.00**	**11.80**	**20.97**	**12.52**	**0.00**	**14.49**	**14.29**	**0.60**	**9.21**	**13.89**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/1/2023	3/7/2023	5	5	
2	Grading	Grading	3/8/2023	3/17/2023	5	8	
3	Building Construction	Building Construction	3/18/2023	2/2/2024	5	230	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Paving	Paving	2/3/2024	2/28/2024	5	18	
5	Architectural Coating	Architectural Coating	2/29/2024	3/25/2024	5	18	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 0

Residential Indoor: 163,091; Residential Outdoor: 54,364; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	1	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	52.00	8.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0688	0.0456	1.0000e-004		3.1700e-003	3.1700e-003		2.9100e-003	2.9100e-003	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	**6.6500e-003**	**0.0688**	**0.0456**	**1.0000e-004**	**0.0491**	**3.1700e-003**	**0.0523**	**0.0253**	**2.9100e-003**	**0.0282**	**0.0000**	**8.3627**	**8.3627**	**2.7000e-003**	**0.0000**	**8.4303**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	9.0000e-005	1.0600e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2829	0.2829	1.0000e-005	1.0000e-005	0.2856
Total	**1.4000e-004**	**9.0000e-005**	**1.0600e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2829**	**0.2829**	**1.0000e-005**	**1.0000e-005**	**0.2856**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0192	0.0000	0.0192	9.8500e-003	0.0000	9.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0688	0.0456	1.0000e-004		3.1700e-003	3.1700e-003		2.9100e-003	2.9100e-003	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	**6.6500e-003**	**0.0688**	**0.0456**	**1.0000e-004**	**0.0192**	**3.1700e-003**	**0.0223**	**9.8500e-003**	**2.9100e-003**	**0.0128**	**0.0000**	**8.3627**	**8.3627**	**2.7000e-003**	**0.0000**	**8.4303**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	9.0000e-005	1.0600e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2829	0.2829	1.0000e-005	1.0000e-005	0.2856
Total	**1.4000e-004**	**9.0000e-005**	**1.0600e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2829**	**0.2829**	**1.0000e-005**	**1.0000e-005**	**0.2856**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0283	0.0000	0.0283	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8400e-003	0.0717	0.0590	1.2000e-004		3.1000e-003	3.1000e-003		2.8500e-003	2.8500e-003	0.0000	10.4243	10.4243	3.3700e-003	0.0000	10.5085
Total	**6.8400e-003**	**0.0717**	**0.0590**	**1.2000e-004**	**0.0283**	**3.1000e-003**	**0.0314**	**0.0137**	**2.8500e-003**	**0.0166**	**0.0000**	**10.4243**	**10.4243**	**3.3700e-003**	**0.0000**	**10.5085**

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.2000e-004	1.4100e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3772	0.3772	1.0000e-005	1.0000e-005	0.3808
Total	**1.9000e-004**	**1.2000e-004**	**1.4100e-003**	**0.0000**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.3772**	**0.3772**	**1.0000e-005**	**1.0000e-005**	**0.3808**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0111	0.0000	0.0111	5.3400e-003	0.0000	5.3400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8400e-003	0.0717	0.0590	1.2000e-004		3.1000e-003	3.1000e-003		2.8500e-003	2.8500e-003	0.0000	10.4242	10.4242	3.3700e-003	0.0000	10.5085
Total	**6.8400e-003**	**0.0717**	**0.0590**	**1.2000e-004**	**0.0111**	**3.1000e-003**	**0.0142**	**5.3400e-003**	**2.8500e-003**	**8.1900e-003**	**0.0000**	**10.4242**	**10.4242**	**3.3700e-003**	**0.0000**	**10.5085**

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.2000e-004	1.4100e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3772	0.3772	1.0000e-005	1.0000e-005	0.3808
Total	**1.9000e-004**	**1.2000e-004**	**1.4100e-003**	**0.0000**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.3772**	**0.3772**	**1.0000e-005**	**1.0000e-005**	**0.3808**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1612	1.4745	1.6650	2.7600e-003		0.0717	0.0717		0.0675	0.0675	0.0000	237.5999	237.5999	0.0565	0.0000	239.0129
Total	**0.1612**	**1.4745**	**1.6650**	**2.7600e-003**		**0.0717**	**0.0717**		**0.0675**	**0.0675**	**0.0000**	**237.5999**	**237.5999**	**0.0565**	**0.0000**	**239.0129**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.8000e-004	0.0360	0.0108	1.6000e-004	5.4400e-003	2.3000e-004	5.6700e-003	1.5700e-003	2.2000e-004	1.7900e-003	0.0000	15.7707	15.7707	9.0000e-005	2.3700e-003	16.4803
Worker	0.0165	0.0107	0.1257	3.7000e-004	0.0426	2.1000e-004	0.0428	0.0113	1.9000e-004	0.0115	0.0000	33.5107	33.5107	1.0200e-003	9.7000e-004	33.8258
Total	**0.0174**	**0.0467**	**0.1365**	**5.3000e-004**	**0.0481**	**4.4000e-004**	**0.0485**	**0.0129**	**4.1000e-004**	**0.0133**	**0.0000**	**49.2814**	**49.2814**	**1.1100e-003**	**3.3400e-003**	**50.3060**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1612	1.4745	1.6650	2.7600e-003		0.0717	0.0717		0.0675	0.0675	0.0000	237.5996	237.5996	0.0565	0.0000	239.0126
Total	**0.1612**	**1.4745**	**1.6650**	**2.7600e-003**		**0.0717**	**0.0717**		**0.0675**	**0.0675**	**0.0000**	**237.5996**	**237.5996**	**0.0565**	**0.0000**	**239.0126**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.8000e-004	0.0360	0.0108	1.6000e-004	5.4400e-003	2.3000e-004	5.6700e-003	1.5700e-003	2.2000e-004	1.7900e-003	0.0000	15.7707	15.7707	9.0000e-005	2.3700e-003	16.4803
Worker	0.0165	0.0107	0.1257	3.7000e-004	0.0426	2.1000e-004	0.0428	0.0113	1.9000e-004	0.0115	0.0000	33.5107	33.5107	1.0200e-003	9.7000e-004	33.8258
Total	**0.0174**	**0.0467**	**0.1365**	**5.3000e-004**	**0.0481**	**4.4000e-004**	**0.0485**	**0.0129**	**4.1000e-004**	**0.0133**	**0.0000**	**49.2814**	**49.2814**	**1.1100e-003**	**3.3400e-003**	**50.3060**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0184	0.1681	0.2021	3.4000e-004		7.6700e-003	7.6700e-003		7.2100e-003	7.2100e-003	0.0000	28.9811	28.9811	6.8500e-003	0.0000	29.1525
Total	**0.0184**	**0.1681**	**0.2021**	**3.4000e-004**		**7.6700e-003**	**7.6700e-003**		**7.2100e-003**	**7.2100e-003**	**0.0000**	**28.9811**	**28.9811**	**6.8500e-003**	**0.0000**	**29.1525**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-004	4.3900e-003	1.2900e-003	2.0000e-005	6.6000e-004	3.0000e-005	6.9000e-004	1.9000e-004	3.0000e-005	2.2000e-004	0.0000	1.8904	1.8904	1.0000e-005	2.8000e-004	1.9755
Worker	1.8600e-003	1.1500e-003	0.0141	4.0000e-005	5.2000e-003	2.0000e-005	5.2200e-003	1.3800e-003	2.0000e-005	1.4000e-003	0.0000	3.9521	3.9521	1.1000e-004	1.1000e-004	3.9876
Total	**1.9600e-003**	**5.5400e-003**	**0.0154**	**6.0000e-005**	**5.8600e-003**	**5.0000e-005**	**5.9100e-003**	**1.5700e-003**	**5.0000e-005**	**1.6200e-003**	**0.0000**	**5.8426**	**5.8426**	**1.2000e-004**	**3.9000e-004**	**5.9631**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0184	0.1681	0.2021	3.4000e-004		7.6700e-003	7.6700e-003		7.2100e-003	7.2100e-003	0.0000	28.9811	28.9811	6.8500e-003	0.0000	29.1524
Total	**0.0184**	**0.1681**	**0.2021**	**3.4000e-004**		**7.6700e-003**	**7.6700e-003**		**7.2100e-003**	**7.2100e-003**	**0.0000**	**28.9811**	**28.9811**	**6.8500e-003**	**0.0000**	**29.1524**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-004	4.3900e-003	1.2900e-003	2.0000e-005	6.6000e-004	3.0000e-005	6.9000e-004	1.9000e-004	3.0000e-005	2.2000e-004	0.0000	1.8904	1.8904	1.0000e-005	2.8000e-004	1.9755
Worker	1.8600e-003	1.1500e-003	0.0141	4.0000e-005	5.2000e-003	2.0000e-005	5.2200e-003	1.3800e-003	2.0000e-005	1.4000e-003	0.0000	3.9521	3.9521	1.1000e-004	1.1000e-004	3.9876
Total	**1.9600e-003**	**5.5400e-003**	**0.0154**	**6.0000e-005**	**5.8600e-003**	**5.0000e-005**	**5.9100e-003**	**1.5700e-003**	**5.0000e-005**	**1.6200e-003**	**0.0000**	**5.8426**	**5.8426**	**1.2000e-004**	**3.9000e-004**	**5.9631**

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.9300e-003	0.0745	0.1100	1.7000e-004		3.5900e-003	3.5900e-003		3.3200e-003	3.3200e-003	0.0000	14.7423	14.7423	4.6300e-003	0.0000	14.8581
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.9300e-003**	**0.0745**	**0.1100**	**1.7000e-004**		**3.5900e-003**	**3.5900e-003**		**3.3200e-003**	**3.3200e-003**	**0.0000**	**14.7423**	**14.7423**	**4.6300e-003**	**0.0000**	**14.8581**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	3.2000e-004	3.9100e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.0944	1.0944	3.0000e-005	3.0000e-005	1.1043
Total	**5.2000e-004**	**3.2000e-004**	**3.9100e-003**	**1.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.0944**	**1.0944**	**3.0000e-005**	**3.0000e-005**	**1.1043**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.9300e-003	0.0745	0.1100	1.7000e-004		3.5900e-003	3.5900e-003		3.3200e-003	3.3200e-003	0.0000	14.7423	14.7423	4.6300e-003	0.0000	14.8581
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.9300e-003**	**0.0745**	**0.1100**	**1.7000e-004**		**3.5900e-003**	**3.5900e-003**		**3.3200e-003**	**3.3200e-003**	**0.0000**	**14.7423**	**14.7423**	**4.6300e-003**	**0.0000**	**14.8581**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	3.2000e-004	3.9100e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.0944	1.0944	3.0000e-005	3.0000e-005	1.1043
Total	**5.2000e-004**	**3.2000e-004**	**3.9100e-003**	**1.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.0944**	**1.0944**	**3.0000e-005**	**3.0000e-005**	**1.1043**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7559					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6300e-003	0.0110	0.0163	3.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	2.2979	2.2979	1.3000e-004	0.0000	2.3012
Total	**0.7576**	**0.0110**	**0.0163**	**3.0000e-005**		**5.5000e-004**	**5.5000e-004**		**5.5000e-004**	**5.5000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.3000e-004**	**0.0000**	**2.3012**

3.6 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.6000e-004	1.9600e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5472	0.5472	2.0000e-005	2.0000e-005	0.5521
Total	**2.6000e-004**	**1.6000e-004**	**1.9600e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5472**	**0.5472**	**2.0000e-005**	**2.0000e-005**	**0.5521**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7559					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6300e-003	0.0110	0.0163	3.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	2.2979	2.2979	1.3000e-004	0.0000	2.3012
Total	**0.7576**	**0.0110**	**0.0163**	**3.0000e-005**		**5.5000e-004**	**5.5000e-004**		**5.5000e-004**	**5.5000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.3000e-004**	**0.0000**	**2.3012**

3.6 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.6000e-004	1.9600e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5472	0.5472	2.0000e-005	2.0000e-005	0.5521
Total	**2.6000e-004**	**1.6000e-004**	**1.9600e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5472**	**0.5472**	**2.0000e-005**	**2.0000e-005**	**0.5521**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1480	0.2590	1.6387	4.4800e-003	0.4803	3.2700e-003	0.4835	0.1280	3.0500e-003	0.1310	0.0000	419.2573	419.2573	0.0320	0.0211	426.3551
Unmitigated	0.1512	0.2827	1.7939	5.0600e-003	0.5445	3.6600e-003	0.5482	0.1451	3.4100e-003	0.1485	0.0000	473.3478	473.3478	0.0349	0.0232	481.1450

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	498.96	498.96	498.96	1,461,788	1,289,297
Total	498.96	498.96	498.96	1,461,788	1,289,297

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	48.40	15.90	35.70	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.527700	0.209000	0.167500	0.055600	0.000900	0.000900	0.008000	0.021400	0.000000	0.004300	0.002500	0.000200	0.002000

5.0 Energy Detail

Historical Energy Use: N

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	27.5197	27.5197	4.4500e-003	5.4000e-004	27.7919
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	27.5197	27.5197	4.4500e-003	5.4000e-004	27.7919
NaturalGas Mitigated	5.3000e-003	0.0453	0.0193	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	52.4345	52.4345	1.0000e-003	9.6000e-004	52.7461
NaturalGas Unmitigated	5.3000e-003	0.0453	0.0193	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	52.4345	52.4345	1.0000e-003	9.6000e-004	52.7461

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	982585	5.3000e-003	0.0453	0.0193	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	52.4345	52.4345	1.0000e-003	9.6000e-004	52.7461
Total		**5.3000e-003**	**0.0453**	**0.0193**	**2.9000e-004**		**3.6600e-003**	**3.6600e-003**		**3.6600e-003**	**3.6600e-003**	**0.0000**	**52.4345**	**52.4345**	**1.0000e-003**	**9.6000e-004**	**52.7461**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	982585	5.3000e-003	0.0453	0.0193	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	52.4345	52.4345	1.0000e-003	9.6000e-004	52.7461
Total		**5.3000e-003**	**0.0453**	**0.0193**	**2.9000e-004**		**3.6600e-003**	**3.6600e-003**		**3.6600e-003**	**3.6600e-003**	**0.0000**	**52.4345**	**52.4345**	**1.0000e-003**	**9.6000e-004**	**52.7461**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	297434	27.5197	4.4500e-003	5.4000e-004	27.7919
Total		**27.5197**	**4.4500e-003**	**5.4000e-004**	**27.7919**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	297434	27.5197	4.4500e-003	5.4000e-004	27.7919
Total		**27.5197**	**4.4500e-003**	**5.4000e-004**	**27.7919**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

No Hearths Installed

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4060	6.1200e-003	0.5305	3.0000e-005		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	0.8654	0.8654	8.3000e-004	0.0000	0.8861
Unmitigated	0.4094	0.0331	0.5458	2.0000e-004		5.1400e-003	5.1400e-003		5.1400e-003	5.1400e-003	0.0000	32.0642	32.0642	1.4400e-003	5.7000e-004	32.2705

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0756					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3146					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.1500e-003	0.0269	0.0115	1.7000e-004		2.1800e-003	2.1800e-003		2.1800e-003	2.1800e-003	0.0000	31.1909	31.1909	6.0000e-004	5.7000e-004	31.3763
Landscaping	0.0161	6.1600e-003	0.5344	3.0000e-005		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	0.8733	0.8733	8.4000e-004	0.0000	0.8942
Total	**0.4094**	**0.0331**	**0.5458**	**2.0000e-004**		**5.1400e-003**	**5.1400e-003**		**5.1400e-003**	**5.1400e-003**	**0.0000**	**32.0642**	**32.0642**	**1.4400e-003**	**5.7000e-004**	**32.2705**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0756					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3146					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0158	6.1200e-003	0.5305	3.0000e-005		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	0.8654	0.8654	8.3000e-004	0.0000	0.8861
Total	**0.4060**	**6.1200e-003**	**0.5305**	**3.0000e-005**		**2.9400e-003**	**2.9400e-003**		**2.9400e-003**	**2.9400e-003**	**0.0000**	**0.8654**	**0.8654**	**8.3000e-004**	**0.0000**	**0.8861**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.7946	0.1534	3.6700e-003	9.7243
Unmitigated	4.7946	0.1534	3.6700e-003	9.7243

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	4.69109 / 2.95743	4.7946	0.1534	3.6700e-003	9.7243
Total		**4.7946**	**0.1534**	**3.6700e-003**	**9.7243**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	4.69109 / 2.95743	4.7946	0.1534	3.6700e-003	9.7243
Total		**4.7946**	**0.1534**	**3.6700e-003**	**9.7243**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.7231	0.3973	0.0000	16.6561
Unmitigated	6.7231	0.3973	0.0000	16.6561

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	33.12	6.7231	0.3973	0.0000	16.6561
Total		**6.7231**	**0.3973**	**0.0000**	**16.6561**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	33.12	6.7231	0.3973	0.0000	16.6561
Total		**6.7231**	**0.3973**	**0.0000**	**16.6561**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Highland & Nebraska - Phase 2 - Residential

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	72.00	Dwelling Unit	4.52	77,178.00	206

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage and square feet provided by Applicant.

Construction Phase -

Vehicle Trips - Traffic study provided by Applicant.

Fleet Mix - District Accepted Fleet Mix for Residential Projects - 2025

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFleetMix	HHD	0.02	0.02

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	LDA	0.52	0.52
tblFleetMix	LDT1	0.05	0.21
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	0.03	8.0000e-004
tblFleetMix	LHD2	6.6560e-003	9.0000e-004
tblFleetMix	MCY	0.02	2.5000e-003
tblFleetMix	MDV	0.15	0.06
tblFleetMix	MH	2.8650e-003	2.2000e-003
tblFleetMix	MHD	0.01	7.6000e-003
tblFleetMix	OBUS	7.0200e-004	0.00
tblFleetMix	SBUS	1.4630e-003	1.0000e-004
tblFleetMix	UBUS	2.8700e-004	4.3000e-003
tblLandUse	LandUseSquareFeet	72,000.00	77,178.00
tblLandUse	LotAcreage	4.50	4.52
tblVehicleTrips	ST_TR	8.14	6.93
tblVehicleTrips	SU_TR	6.28	6.93
tblVehicleTrips	WD_TR	7.32	6.93
tblWoodstoves	NumberCatalytic	4.52	4.72
tblWoodstoves	NumberNoncatalytic	4.52	4.72

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.1667	1.4416	1.7428	3.2300e-003	0.1224	0.0640	0.1864	0.0510	0.0601	0.1111	0.0000	281.3024	281.3024	0.0586	2.9800e-003	283.6546
2025	0.7658	0.3495	0.4933	8.8000e-004	0.0120	0.0148	0.0268	3.2200e-003	0.0139	0.0171	0.0000	76.8585	76.8585	0.0164	6.8000e-004	77.4727
Maximum	**0.7658**	**1.4416**	**1.7428**	**3.2300e-003**	**0.1224**	**0.0640**	**0.1864**	**0.0510**	**0.0601**	**0.1111**	**0.0000**	**281.3024**	**281.3024**	**0.0586**	**2.9800e-003**	**283.6546**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.1667	1.4416	1.7428	3.2300e-003	0.0751	0.0640	0.1391	0.0272	0.0601	0.0873	0.0000	281.3021	281.3021	0.0586	2.9800e-003	283.6543
2025	0.7658	0.3495	0.4933	8.8000e-004	0.0120	0.0148	0.0268	3.2200e-003	0.0139	0.0171	0.0000	76.8584	76.8584	0.0164	6.8000e-004	77.4726
Maximum	**0.7658**	**1.4416**	**1.7428**	**3.2300e-003**	**0.0751**	**0.0640**	**0.1391**	**0.0272**	**0.0601**	**0.0873**	**0.0000**	**281.3021**	**281.3021**	**0.0586**	**2.9800e-003**	**283.6543**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**35.17**	**0.00**	**22.16**	**43.83**	**0.00**	**18.53**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**3-26-2024**	**6-25-2024**	0.5575	0.5575
2	**6-26-2024**	**9-25-2024**	0.5099	0.5099
3	**9-26-2024**	**12-25-2024**	0.5049	0.5049
4	**12-26-2024**	**3-25-2025**	0.4107	0.4107
5	**3-26-2025**	**6-25-2025**	0.7016	0.7016
		Highest	0.7016	0.7016

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4892	0.0473	1.4191	3.0500e-003		0.1477	0.1477		0.1477	0.1477	19.0817	32.0642	51.1459	0.0906	5.7000e-004	53.5822
Energy	5.3000e-003	0.0453	0.0193	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	79.9542	79.9542	5.4600e-003	1.5000e-003	80.5379
Mobile	0.1403	0.2659	1.6924	4.9000e-003	0.5444	3.5300e-003	0.5479	0.1451	3.2900e-003	0.1483	0.0000	458.3575	458.3575	0.0336	0.0221	465.7874
Waste						0.0000	0.0000		0.0000	0.0000	6.7231	0.0000	6.7231	0.3973	0.0000	16.6561
Water						0.0000	0.0000		0.0000	0.0000	1.4883	3.3063	4.7946	0.1534	3.6700e-003	9.7243
Total	**0.6348**	**0.3585**	**3.1308**	**8.2400e-003**	**0.5444**	**0.1548**	**0.6992**	**0.1451**	**0.1546**	**0.2997**	**27.2930**	**573.6822**	**600.9752**	**0.6805**	**0.0279**	**626.2880**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3897	6.1100e-003	0.5303	3.0000e-005		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	0.8654	0.8654	8.2000e-004	0.0000	0.8860
Energy	5.3000e-003	0.0453	0.0193	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	79.9542	79.9542	5.4600e-003	1.5000e-003	80.5379
Mobile	0.1374	0.2437	1.5471	4.3400e-003	0.4801	3.1500e-003	0.4833	0.1279	2.9400e-003	0.1309	0.0000	405.9793	405.9793	0.0308	0.0201	412.7425
Waste						0.0000	0.0000		0.0000	0.0000	6.7231	0.0000	6.7231	0.3973	0.0000	16.6561
Water						0.0000	0.0000		0.0000	0.0000	1.4883	3.3063	4.7946	0.1534	3.6700e-003	9.7243
Total	**0.5323**	**0.2951**	**2.0967**	**4.6600e-003**	**0.4801**	**9.7500e-003**	**0.4899**	**0.1279**	**9.5400e-003**	**0.1375**	**8.2113**	**490.1052**	**498.3166**	**0.5878**	**0.0253**	**520.5469**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**16.15**	**17.69**	**33.03**	**43.45**	**11.80**	**93.70**	**29.94**	**11.80**	**93.83**	**54.12**	**69.91**	**14.57**	**17.08**	**13.62**	**9.19**	**16.88**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/26/2024	4/1/2024	5	5	
2	Grading	Grading	4/2/2024	4/11/2024	5	8	
3	Building Construction	Building Construction	4/12/2024	2/27/2025	5	230	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Paving	Paving	2/28/2025	3/25/2025	5	18	
5	Architectural Coating	Architectural Coating	3/26/2025	4/18/2025	5	18	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 0

Residential Indoor: 156,285; Residential Outdoor: 52,095; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	1	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	52.00	8.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0679	0.0458	1.0000e-004		3.0700e-003	3.0700e-003		2.8300e-003	2.8300e-003	0.0000	8.3643	8.3643	2.7100e-003	0.0000	8.4319
Total	**6.6500e-003**	**0.0679**	**0.0458**	**1.0000e-004**	**0.0491**	**3.0700e-003**	**0.0522**	**0.0253**	**2.8300e-003**	**0.0281**	**0.0000**	**8.3643**	**8.3643**	**2.7100e-003**	**0.0000**	**8.4319**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	8.0000e-005	9.8000e-004	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2736	0.2736	1.0000e-005	1.0000e-005	0.2761
Total	**1.3000e-004**	**8.0000e-005**	**9.8000e-004**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2736**	**0.2736**	**1.0000e-005**	**1.0000e-005**	**0.2761**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0192	0.0000	0.0192	9.8500e-003	0.0000	9.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0679	0.0458	1.0000e-004		3.0700e-003	3.0700e-003		2.8300e-003	2.8300e-003	0.0000	8.3643	8.3643	2.7100e-003	0.0000	8.4319
Total	**6.6500e-003**	**0.0679**	**0.0458**	**1.0000e-004**	**0.0192**	**3.0700e-003**	**0.0222**	**9.8500e-003**	**2.8300e-003**	**0.0127**	**0.0000**	**8.3643**	**8.3643**	**2.7100e-003**	**0.0000**	**8.4319**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	8.0000e-005	9.8000e-004	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2736	0.2736	1.0000e-005	1.0000e-005	0.2761
Total	**1.3000e-004**	**8.0000e-005**	**9.8000e-004**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2736**	**0.2736**	**1.0000e-005**	**1.0000e-005**	**0.2761**

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0283	0.0000	0.0283	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0681	0.0590	1.2000e-004		2.9000e-003	2.9000e-003		2.6700e-003	2.6700e-003	0.0000	10.4256	10.4256	3.3700e-003	0.0000	10.5099
Total	**6.6500e-003**	**0.0681**	**0.0590**	**1.2000e-004**	**0.0283**	**2.9000e-003**	**0.0312**	**0.0137**	**2.6700e-003**	**0.0164**	**0.0000**	**10.4256**	**10.4256**	**3.3700e-003**	**0.0000**	**10.5099**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.1000e-004	1.3000e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3648	0.3648	1.0000e-005	1.0000e-005	0.3681
Total	**1.7000e-004**	**1.1000e-004**	**1.3000e-003**	**0.0000**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.3648**	**0.3648**	**1.0000e-005**	**1.0000e-005**	**0.3681**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0111	0.0000	0.0111	5.3400e-003	0.0000	5.3400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0681	0.0590	1.2000e-004		2.9000e-003	2.9000e-003		2.6700e-003	2.6700e-003	0.0000	10.4256	10.4256	3.3700e-003	0.0000	10.5099
Total	**6.6500e-003**	**0.0681**	**0.0590**	**1.2000e-004**	**0.0111**	**2.9000e-003**	**0.0140**	**5.3400e-003**	**2.6700e-003**	**8.0100e-003**	**0.0000**	**10.4256**	**10.4256**	**3.3700e-003**	**0.0000**	**10.5099**

3.3 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.1000e-004	1.3000e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3648	0.3648	1.0000e-005	1.0000e-005	0.3681
Total	**1.7000e-004**	**1.1000e-004**	**1.3000e-003**	**0.0000**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.3648**	**0.3648**	**1.0000e-005**	**1.0000e-005**	**0.3681**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1383	1.2637	1.5197	2.5300e-003		0.0577	0.0577		0.0542	0.0542	0.0000	217.9382	217.9382	0.0515	0.0000	219.2266
Total	**0.1383**	**1.2637**	**1.5197**	**2.5300e-003**		**0.0577**	**0.0577**		**0.0542**	**0.0542**	**0.0000**	**217.9382**	**217.9382**	**0.0515**	**0.0000**	**219.2266**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.9000e-004	0.0330	9.6700e-003	1.5000e-004	4.9900e-003	2.1000e-004	5.2000e-003	1.4400e-003	2.0000e-004	1.6400e-003	0.0000	14.2161	14.2161	7.0000e-005	2.1400e-003	14.8556
Worker	0.0140	8.6400e-003	0.1063	3.2000e-004	0.0391	1.8000e-004	0.0393	0.0104	1.6000e-004	0.0106	0.0000	29.7199	29.7199	8.4000e-004	8.2000e-004	29.9865
Total	**0.0148**	**0.0417**	**0.1159**	**4.7000e-004**	**0.0441**	**3.9000e-004**	**0.0445**	**0.0118**	**3.6000e-004**	**0.0122**	**0.0000**	**43.9360**	**43.9360**	**9.1000e-004**	**2.9600e-003**	**44.8422**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1383	1.2637	1.5197	2.5300e-003		0.0577	0.0577		0.0542	0.0542	0.0000	217.9379	217.9379	0.0515	0.0000	219.2263
Total	**0.1383**	**1.2637**	**1.5197**	**2.5300e-003**		**0.0577**	**0.0577**		**0.0542**	**0.0542**	**0.0000**	**217.9379**	**217.9379**	**0.0515**	**0.0000**	**219.2263**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.9000e-004	0.0330	9.6700e-003	1.5000e-004	4.9900e-003	2.1000e-004	5.2000e-003	1.4400e-003	2.0000e-004	1.6400e-003	0.0000	14.2161	14.2161	7.0000e-005	2.1400e-003	14.8556
Worker	0.0140	8.6400e-003	0.1063	3.2000e-004	0.0391	1.8000e-004	0.0393	0.0104	1.6000e-004	0.0106	0.0000	29.7199	29.7199	8.4000e-004	8.2000e-004	29.9865
Total	**0.0148**	**0.0417**	**0.1159**	**4.7000e-004**	**0.0441**	**3.9000e-004**	**0.0445**	**0.0118**	**3.6000e-004**	**0.0122**	**0.0000**	**43.9360**	**43.9360**	**9.1000e-004**	**2.9600e-003**	**44.8422**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0287	0.2619	0.3378	5.7000e-004		0.0111	0.0111		0.0104	0.0104	0.0000	48.7031	48.7031	0.0115	0.0000	48.9893
Total	**0.0287**	**0.2619**	**0.3378**	**5.7000e-004**		**0.0111**	**0.0111**		**0.0104**	**0.0104**	**0.0000**	**48.7031**	**48.7031**	**0.0115**	**0.0000**	**48.9893**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7000e-004	7.3500e-003	2.1200e-003	3.0000e-005	1.1100e-003	5.0000e-005	1.1600e-003	3.2000e-004	5.0000e-005	3.7000e-004	0.0000	3.1149	3.1149	2.0000e-005	4.7000e-004	3.2550
Worker	2.9000e-003	1.7200e-003	0.0220	7.0000e-005	8.7300e-003	4.0000e-005	8.7700e-003	2.3200e-003	3.0000e-005	2.3600e-003	0.0000	6.4159	6.4159	1.7000e-004	1.7000e-004	6.4711
Total	**3.0700e-003**	**9.0700e-003**	**0.0242**	**1.0000e-004**	**9.8400e-003**	**9.0000e-005**	**9.9300e-003**	**2.6400e-003**	**8.0000e-005**	**2.7300e-003**	**0.0000**	**9.5307**	**9.5307**	**1.9000e-004**	**6.4000e-004**	**9.7261**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0287	0.2619	0.3378	5.7000e-004		0.0111	0.0111		0.0104	0.0104	0.0000	48.7030	48.7030	0.0115	0.0000	48.9892
Total	**0.0287**	**0.2619**	**0.3378**	**5.7000e-004**		**0.0111**	**0.0111**		**0.0104**	**0.0104**	**0.0000**	**48.7030**	**48.7030**	**0.0115**	**0.0000**	**48.9892**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7000e-004	7.3500e-003	2.1200e-003	3.0000e-005	1.1100e-003	5.0000e-005	1.1600e-003	3.2000e-004	5.0000e-005	3.7000e-004	0.0000	3.1149	3.1149	2.0000e-005	4.7000e-004	3.2550
Worker	2.9000e-003	1.7200e-003	0.0220	7.0000e-005	8.7300e-003	4.0000e-005	8.7700e-003	2.3200e-003	3.0000e-005	2.3600e-003	0.0000	6.4159	6.4159	1.7000e-004	1.7000e-004	6.4711
Total	**3.0700e-003**	**9.0700e-003**	**0.0242**	**1.0000e-004**	**9.8400e-003**	**9.0000e-005**	**9.9300e-003**	**2.6400e-003**	**8.0000e-005**	**2.7300e-003**	**0.0000**	**9.5307**	**9.5307**	**1.9000e-004**	**6.4000e-004**	**9.7261**

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.3800e-003	0.0678	0.1096	1.7000e-004		3.1700e-003	3.1700e-003		2.9300e-003	2.9300e-003	0.0000	14.7404	14.7404	4.6300e-003	0.0000	14.8562
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.3800e-003**	**0.0678**	**0.1096**	**1.7000e-004**		**3.1700e-003**	**3.1700e-003**		**2.9300e-003**	**2.9300e-003**	**0.0000**	**14.7404**	**14.7404**	**4.6300e-003**	**0.0000**	**14.8562**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	2.8000e-004	3.6300e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.0576	1.0576	3.0000e-005	3.0000e-005	1.0667
Total	**4.8000e-004**	**2.8000e-004**	**3.6300e-003**	**1.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.0576**	**1.0576**	**3.0000e-005**	**3.0000e-005**	**1.0667**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.3800e-003	0.0678	0.1096	1.7000e-004		3.1700e-003	3.1700e-003		2.9300e-003	2.9300e-003	0.0000	14.7404	14.7404	4.6300e-003	0.0000	14.8562
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.3800e-003**	**0.0678**	**0.1096**	**1.7000e-004**		**3.1700e-003**	**3.1700e-003**		**2.9300e-003**	**2.9300e-003**	**0.0000**	**14.7404**	**14.7404**	**4.6300e-003**	**0.0000**	**14.8562**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	2.8000e-004	3.6300e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.0576	1.0576	3.0000e-005	3.0000e-005	1.0667
Total	**4.8000e-004**	**2.8000e-004**	**3.6300e-003**	**1.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.0576**	**1.0576**	**3.0000e-005**	**3.0000e-005**	**1.0667**

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7244					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5400e-003	0.0103	0.0163	3.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	2.2979	2.2979	1.3000e-004	0.0000	2.3011
Total	**0.7259**	**0.0103**	**0.0163**	**3.0000e-005**		**4.6000e-004**	**4.6000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.3000e-004**	**0.0000**	**2.3011**

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.4000e-004	1.8200e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5288	0.5288	1.0000e-005	1.0000e-005	0.5333
Total	**2.4000e-004**	**1.4000e-004**	**1.8200e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5288**	**0.5288**	**1.0000e-005**	**1.0000e-005**	**0.5333**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7244					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5400e-003	0.0103	0.0163	3.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	2.2979	2.2979	1.3000e-004	0.0000	2.3011
Total	**0.7259**	**0.0103**	**0.0163**	**3.0000e-005**		**4.6000e-004**	**4.6000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.3000e-004**	**0.0000**	**2.3011**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.4000e-004	1.8200e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5288	0.5288	1.0000e-005	1.0000e-005	0.5333
Total	**2.4000e-004**	**1.4000e-004**	**1.8200e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5288**	**0.5288**	**1.0000e-005**	**1.0000e-005**	**0.5333**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1374	0.2437	1.5471	4.3400e-003	0.4801	3.1500e-003	0.4833	0.1279	2.9400e-003	0.1309	0.0000	405.9793	405.9793	0.0308	0.0201	412.7425
Unmitigated	0.1403	0.2659	1.6924	4.9000e-003	0.5444	3.5300e-003	0.5479	0.1451	3.2900e-003	0.1483	0.0000	458.3575	458.3575	0.0336	0.0221	465.7874

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	498.96	498.96	498.96	1,461,788	1,289,297
Total	498.96	498.96	498.96	1,461,788	1,289,297

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	48.40	15.90	35.70	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.524400	0.212000	0.167700	0.056300	0.000800	0.000900	0.007600	0.021200	0.000000	0.004300	0.002500	0.000100	0.002200

5.0 Energy Detail

Historical Energy Use: N

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	27.5197	27.5197	4.4500e-003	5.4000e-004	27.7919
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	27.5197	27.5197	4.4500e-003	5.4000e-004	27.7919
NaturalGas Mitigated	5.3000e-003	0.0453	0.0193	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	52.4345	52.4345	1.0000e-003	9.6000e-004	52.7461
NaturalGas Unmitigated	5.3000e-003	0.0453	0.0193	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	52.4345	52.4345	1.0000e-003	9.6000e-004	52.7461

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	982585	5.3000e-003	0.0453	0.0193	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	52.4345	52.4345	1.0000e-003	9.6000e-004	52.7461
Total		**5.3000e-003**	**0.0453**	**0.0193**	**2.9000e-004**		**3.6600e-003**	**3.6600e-003**		**3.6600e-003**	**3.6600e-003**	**0.0000**	**52.4345**	**52.4345**	**1.0000e-003**	**9.6000e-004**	**52.7461**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	982585	5.3000e-003	0.0453	0.0193	2.9000e-004		3.6600e-003	3.6600e-003		3.6600e-003	3.6600e-003	0.0000	52.4345	52.4345	1.0000e-003	9.6000e-004	52.7461
Total		**5.3000e-003**	**0.0453**	**0.0193**	**2.9000e-004**		**3.6600e-003**	**3.6600e-003**		**3.6600e-003**	**3.6600e-003**	**0.0000**	**52.4345**	**52.4345**	**1.0000e-003**	**9.6000e-004**	**52.7461**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	297434	27.5197	4.4500e-003	5.4000e-004	27.7919
Total		**27.5197**	**4.4500e-003**	**5.4000e-004**	**27.7919**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	297434	27.5197	4.4500e-003	5.4000e-004	27.7919
Total		**27.5197**	**4.4500e-003**	**5.4000e-004**	**27.7919**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

No Hearths Installed

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3897	6.1100e-003	0.5303	3.0000e-005		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	0.8654	0.8654	8.2000e-004	0.0000	0.8860
Unmitigated	0.4892	0.0473	1.4191	3.0500e-003		0.1477	0.1477		0.1477	0.1477	19.0817	32.0642	51.1459	0.0906	5.7000e-004	53.5822

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0724					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3014					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0993	0.0412	0.8850	3.0200e-003		0.1447	0.1447		0.1447	0.1447	19.0817	31.1909	50.2726	0.0898	5.7000e-004	52.6880
Landscaping	0.0160	6.1500e-003	0.5341	3.0000e-005		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003	0.0000	0.8733	0.8733	8.4000e-004	0.0000	0.8942
Total	**0.4892**	**0.0473**	**1.4191**	**3.0500e-003**		**0.1476**	**0.1476**		**0.1476**	**0.1476**	**19.0817**	**32.0642**	**51.1459**	**0.0906**	**5.7000e-004**	**53.5822**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0724					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3014					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0158	6.1100e-003	0.5303	3.0000e-005		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	0.8654	0.8654	8.2000e-004	0.0000	0.8860
Total	**0.3897**	**6.1100e-003**	**0.5303**	**3.0000e-005**		**2.9400e-003**	**2.9400e-003**		**2.9400e-003**	**2.9400e-003**	**0.0000**	**0.8654**	**0.8654**	**8.2000e-004**	**0.0000**	**0.8860**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.7946	0.1534	3.6700e-003	9.7243
Unmitigated	4.7946	0.1534	3.6700e-003	9.7243

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	4.69109 / 2.95743	4.7946	0.1534	3.6700e-003	9.7243
Total		**4.7946**	**0.1534**	**3.6700e-003**	**9.7243**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	4.69109 / 2.95743	4.7946	0.1534	3.6700e-003	9.7243
Total		**4.7946**	**0.1534**	**3.6700e-003**	**9.7243**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.7231	0.3973	0.0000	16.6561
Unmitigated	6.7231	0.3973	0.0000	16.6561

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	33.12	6.7231	0.3973	0.0000	16.6561
Total		**6.7231**	**0.3973**	**0.0000**	**16.6561**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	33.12	6.7231	0.3973	0.0000	16.6561
Total		**6.7231**	**0.3973**	**0.0000**	**16.6561**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Highland and Nebraska - Phase 3 - Commercial

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	12.08	1000sqft	2.20	12,080.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2026
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage provided by Applicant.

Construction Phase -

Trips and VMT -

Vehicle Trips - Traffic Study provided by Applicant.

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblLandUse	LotAcreage	0.28	2.20

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	ST_TR	42.04	49.22
tblVehicleTrips	SU_TR	20.43	49.22
tblVehicleTrips	WD_TR	44.32	49.22

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.1360	1.1080	1.2676	2.3300e-003	0.0279	0.0431	0.0710	0.0117	0.0411	0.0528		194.9076	194.9076	0.0360	5.5000e-004	195.9711
2026	0.1235	0.3217	0.3934	7.0000e-004	1.6800e-003	0.0128	0.0145	4.5000e-004	0.0122	0.0127		58.6294	58.6294	0.0113	1.5000e-004	58.9575
Maximum	**0.1360**	**1.1080**	**1.2676**	**2.3300e-003**	**0.0279**	**0.0431**	**0.0710**	**0.0117**	**0.0411**	**0.0528**		**194.9076**	**194.9076**	**0.0360**	**5.5000e-004**	**195.9711**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.1360	1.1080	1.2676	2.3300e-003	0.0135	0.0431	0.0565	5.2700e-003	0.0411	0.0464		194.9074	194.9074	0.0360	5.5000e-004	195.9709
2026	0.1235	0.3217	0.3934	7.0000e-004	1.6800e-003	0.0128	0.0145	4.5000e-004	0.0122	0.0127		58.6294	58.6294	0.0113	1.5000e-004	58.9574
Maximum	**0.1360**	**1.1080**	**1.2676**	**2.3300e-003**	**0.0135**	**0.0431**	**0.0565**	**5.2700e-003**	**0.0411**	**0.0464**		**194.9074**	**194.9074**	**0.0360**	**5.5000e-004**	**195.9709**

Highland and Nebraska - Phase 3 - Commercial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**48.73**	**0.00**	**16.87**	**52.88**	**0.00**	**9.80**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**4-21-2025**	**7-20-2025**	0.4411	0.4411
2	**7-21-2025**	**10-20-2025**	0.4475	0.4475
3	**10-21-2025**	**1-20-2026**	0.4476	0.4476
4	**1-21-2026**	**4-20-2026**	0.3460	0.3460
		Highest	0.4476	0.4476

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0556	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000	0.0000	2.3000e-004
Energy	6.9000e-004	6.2800e-003	5.2800e-003	4.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004		15.6917	15.6917	1.5600e-003	3.0000e-004	15.8198
Mobile	0.2094	0.2824	1.5898	3.3500e-003	0.3432	2.8500e-003	0.3461	0.0918	2.6700e-003	0.0945		310.0041	310.0041	0.0204	0.0193	316.2663
Waste						0.0000	0.0000		0.0000	0.0000		0.0000	2.5739	0.1521	0.0000	6.3768
Water						0.0000	0.0000		0.0000	0.0000		0.6256	0.9095	0.0293	7.0000e-004	1.8497
Total	**0.2657**	**0.2887**	**1.5952**	**3.3900e-003**	**0.3432**	**3.3300e-003**	**0.3466**	**0.0918**	**3.1500e-003**	**0.0950**		**326.3215**	**329.1793**	**0.2034**	**0.0203**	**340.3129**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0556	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.1000e-004	2.1000e-004	0.0000	0.0000	2.3000e-004
Energy	6.9000e-004	6.2800e-003	5.2800e-003	4.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004		15.6917	15.6917	1.5600e-003	3.0000e-004	15.8198
Mobile	0.2082	0.2788	1.5694	3.2900e-003	0.3364	2.8000e-003	0.3392	0.0900	2.6200e-003	0.0926		304.1525	304.1525	0.0202	0.0190	310.3307
Waste						0.0000	0.0000		0.0000	0.0000		0.0000	2.5739	0.1521	0.0000	6.3768
Water						0.0000	0.0000		0.0000	0.0000		0.6256	0.9095	0.0293	7.0000e-004	1.8497
Total	**0.2644**	**0.2850**	**1.5748**	**3.3300e-003**	**0.3364**	**3.2800e-003**	**0.3397**	**0.0900**	**3.1000e-003**	**0.0931**		**320.4700**	**323.3278**	**0.2032**	**0.0200**	**334.3773**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.46**	**1.27**	**1.28**	**1.77**	**2.00**	**1.50**	**1.99**	**1.99**	**1.59**	**1.98**	**0.00**	**1.79**	**1.78**	**0.09**	**1.33**	**1.74**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/21/2025	4/23/2025	5	3	
2	Grading	Grading	4/24/2025	5/1/2025	5	6	
3	Building Construction	Building Construction	5/2/2025	3/5/2026	5	220	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Paving	Paving	3/6/2026	3/19/2026	5	10	
5	Architectural Coating	Architectural Coating	3/20/2026	4/2/2026	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 6

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 18,120; Non-Residential Outdoor: 6,040; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	4.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004		0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6500e-003	0.0165	0.0134	4.0000e-005		6.1000e-004	6.1000e-004		5.6000e-004	5.6000e-004		3.2287	3.2287	1.0400e-003	0.0000	3.2548
Total	**1.6500e-003**	**0.0165**	**0.0134**	**4.0000e-005**	**2.3900e-003**	**6.1000e-004**	**3.0000e-003**	**2.6000e-004**	**5.6000e-004**	**8.2000e-004**		**3.2287**	**3.2287**	**1.0400e-003**	**0.0000**	**3.2548**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.4000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005		0.0705	0.0705	0.0000	0.0000	0.0711
Total	**3.0000e-005**	**2.0000e-005**	**2.4000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**		**0.0705**	**0.0705**	**0.0000**	**0.0000**	**0.0711**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.3000e-004	0.0000	9.3000e-004	1.0000e-004	0.0000	1.0000e-004		0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6500e-003	0.0165	0.0134	4.0000e-005		6.1000e-004	6.1000e-004		5.6000e-004	5.6000e-004		3.2287	3.2287	1.0400e-003	0.0000	3.2548
Total	**1.6500e-003**	**0.0165**	**0.0134**	**4.0000e-005**	**9.3000e-004**	**6.1000e-004**	**1.5400e-003**	**1.0000e-004**	**5.6000e-004**	**6.6000e-004**		**3.2287**	**3.2287**	**1.0400e-003**	**0.0000**	**3.2548**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.4000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005		0.0705	0.0705	0.0000	0.0000	0.0711
Total	**3.0000e-005**	**2.0000e-005**	**2.4000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**		**0.0705**	**0.0705**	**0.0000**	**0.0000**	**0.0711**

3.3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0213	0.0000	0.0213	0.0103	0.0000	0.0103		0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5700e-003	0.0373	0.0255	6.0000e-005		1.4900e-003	1.4900e-003		1.3700e-003	1.3700e-003		5.4317	5.4317	1.7600e-003	0.0000	5.4756
Total	**3.5700e-003**	**0.0373**	**0.0255**	**6.0000e-005**	**0.0213**	**1.4900e-003**	**0.0227**	**0.0103**	**1.3700e-003**	**0.0116**		**5.4317**	**5.4317**	**1.7600e-003**	**0.0000**	**5.4756**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	5.0000e-005	6.1000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005		0.1763	0.1763	0.0000	0.0000	0.1778
Total	**8.0000e-005**	**5.0000e-005**	**6.1000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**		**0.1763**	**0.1763**	**0.0000**	**0.0000**	**0.1778**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.2900e-003	0.0000	8.2900e-003	4.0100e-003	0.0000	4.0100e-003		0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5700e-003	0.0373	0.0255	6.0000e-005		1.4900e-003	1.4900e-003		1.3700e-003	1.3700e-003		5.4317	5.4317	1.7600e-003	0.0000	5.4756
Total	**3.5700e-003**	**0.0373**	**0.0255**	**6.0000e-005**	**8.2900e-003**	**1.4900e-003**	**9.7800e-003**	**4.0100e-003**	**1.3700e-003**	**5.3800e-003**		**5.4317**	**5.4317**	**1.7600e-003**	**0.0000**	**5.4756**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	5.0000e-005	6.1000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005		0.1763	0.1763	0.0000	0.0000	0.1778
Total	**8.0000e-005**	**5.0000e-005**	**6.1000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**		**0.1763**	**0.1763**	**0.0000**	**0.0000**	**0.1778**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1296	1.0460	1.2186	2.1800e-003		0.0409	0.0409		0.0391	0.0391		180.7297	180.7297	0.0331	0.0000	181.5583
Total	**0.1296**	**1.0460**	**1.2186**	**2.1800e-003**		**0.0409**	**0.0409**		**0.0391**	**0.0391**		**180.7297**	**180.7297**	**0.0331**	**0.0000**	**181.5583**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8000e-004	7.6100e-003	2.1900e-003	3.0000e-005	1.1500e-003	5.0000e-005	1.2000e-003	3.3000e-004	5.0000e-005	3.8000e-004		3.2261	3.2261	2.0000e-005	4.9000e-004	3.3712
Worker	9.3000e-004	5.5000e-004	7.0200e-003	2.0000e-005	2.7800e-003	1.0000e-005	2.7900e-003	7.4000e-004	1.0000e-005	7.5000e-004		2.0446	2.0446	5.0000e-005	5.0000e-005	2.0622
Total	**1.1100e-003**	**8.1600e-003**	**9.2100e-003**	**5.0000e-005**	**3.9300e-003**	**6.0000e-005**	**3.9900e-003**	**1.0700e-003**	**6.0000e-005**	**1.1300e-003**		**5.2707**	**5.2707**	**7.0000e-005**	**5.4000e-004**	**5.4335**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1296	1.0460	1.2186	2.1800e-003		0.0409	0.0409		0.0391	0.0391		180.7295	180.7295	0.0331	0.0000	181.5581
Total	**0.1296**	**1.0460**	**1.2186**	**2.1800e-003**		**0.0409**	**0.0409**		**0.0391**	**0.0391**		**180.7295**	**180.7295**	**0.0331**	**0.0000**	**181.5581**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8000e-004	7.6100e-003	2.1900e-003	3.0000e-005	1.1500e-003	5.0000e-005	1.2000e-003	3.3000e-004	5.0000e-005	3.8000e-004		3.2261	3.2261	2.0000e-005	4.9000e-004	3.3712
Worker	9.3000e-004	5.5000e-004	7.0200e-003	2.0000e-005	2.7800e-003	1.0000e-005	2.7900e-003	7.4000e-004	1.0000e-005	7.5000e-004		2.0446	2.0446	5.0000e-005	5.0000e-005	2.0622
Total	**1.1100e-003**	**8.1600e-003**	**9.2100e-003**	**5.0000e-005**	**3.9300e-003**	**6.0000e-005**	**3.9900e-003**	**1.0700e-003**	**6.0000e-005**	**1.1300e-003**		**5.2707**	**5.2707**	**7.0000e-005**	**5.4000e-004**	**5.4335**

3.4 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.2765	0.3222	5.8000e-004		0.0108	0.0108		0.0104	0.0104		47.7791	47.7791	8.7600e-003	0.0000	47.9982
Total	**0.0343**	**0.2765**	**0.3222**	**5.8000e-004**		**0.0108**	**0.0108**		**0.0104**	**0.0104**		**47.7791**	**47.7791**	**8.7600e-003**	**0.0000**	**47.9982**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0000e-005	2.0000e-003	5.7000e-004	1.0000e-005	3.0000e-004	1.0000e-005	3.2000e-004	9.0000e-005	1.0000e-005	1.0000e-004		0.8361	0.8361	0.0000	1.3000e-004	0.8737
Worker	2.3000e-004	1.3000e-004	1.7500e-003	1.0000e-005	7.4000e-004	0.0000	7.4000e-004	2.0000e-004	0.0000	2.0000e-004		0.5248	0.5248	1.0000e-005	1.0000e-005	0.5292
Total	**2.8000e-004**	**2.1300e-003**	**2.3200e-003**	**2.0000e-005**	**1.0400e-003**	**1.0000e-005**	**1.0600e-003**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**		**1.3609**	**1.3609**	**1.0000e-005**	**1.4000e-004**	**1.4029**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.2765	0.3222	5.8000e-004		0.0108	0.0108		0.0104	0.0104		47.7791	47.7791	8.7600e-003	0.0000	47.9981
Total	**0.0343**	**0.2765**	**0.3222**	**5.8000e-004**		**0.0108**	**0.0108**		**0.0104**	**0.0104**		**47.7791**	**47.7791**	**8.7600e-003**	**0.0000**	**47.9981**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0000e-005	2.0000e-003	5.7000e-004	1.0000e-005	3.0000e-004	1.0000e-005	3.2000e-004	9.0000e-005	1.0000e-005	1.0000e-004		0.8361	0.8361	0.0000	1.3000e-004	0.8737
Worker	2.3000e-004	1.3000e-004	1.7500e-003	1.0000e-005	7.4000e-004	0.0000	7.4000e-004	2.0000e-004	0.0000	2.0000e-004		0.5248	0.5248	1.0000e-005	1.0000e-005	0.5292
Total	**2.8000e-004**	**2.1300e-003**	**2.3200e-003**	**2.0000e-005**	**1.0400e-003**	**1.0000e-005**	**1.0600e-003**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**		**1.3609**	**1.3609**	**1.0000e-005**	**1.4000e-004**	**1.4029**

3.5 Paving - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.9300e-003	0.0372	0.0584	9.0000e-005		1.7500e-003	1.7500e-003		1.6200e-003	1.6200e-003		7.7565	7.7565	2.4600e-003	0.0000	7.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.9300e-003**	**0.0372**	**0.0584**	**9.0000e-005**		**1.7500e-003**	**1.7500e-003**		**1.6200e-003**	**1.6200e-003**		**7.7565**	**7.7565**	**2.4600e-003**	**0.0000**	**7.8179**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.1000e-004	1.4300e-003	0.0000	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004		0.4278	0.4278	1.0000e-005	1.0000e-005	0.4314
Total	**1.9000e-004**	**1.1000e-004**	**1.4300e-003**	**0.0000**	**6.0000e-004**	**0.0000**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**		**0.4278**	**0.4278**	**1.0000e-005**	**1.0000e-005**	**0.4314**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.9300e-003	0.0372	0.0584	9.0000e-005		1.7500e-003	1.7500e-003		1.6200e-003	1.6200e-003		7.7565	7.7565	2.4600e-003	0.0000	7.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.9300e-003**	**0.0372**	**0.0584**	**9.0000e-005**		**1.7500e-003**	**1.7500e-003**		**1.6200e-003**	**1.6200e-003**		**7.7565**	**7.7565**	**2.4600e-003**	**0.0000**	**7.8179**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.1000e-004	1.4300e-003	0.0000	6.0000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004		0.4278	0.4278	1.0000e-005	1.0000e-005	0.4314
Total	**1.9000e-004**	**1.1000e-004**	**1.4300e-003**	**0.0000**	**6.0000e-004**	**0.0000**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**		**0.4278**	**0.4278**	**1.0000e-005**	**1.0000e-005**	**0.4314**

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0840					0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5000e-004	5.7300e-003	9.0500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**0.0848**	**5.7300e-003**	**9.0500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**		**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.0000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005		0.0285	0.0285	0.0000	0.0000	0.0288
Total	**1.0000e-005**	**1.0000e-005**	**1.0000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**		**0.0285**	**0.0285**	**0.0000**	**0.0000**	**0.0288**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0840					0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5000e-004	5.7300e-003	9.0500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**0.0848**	**5.7300e-003**	**9.0500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**		**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.0000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005		0.0285	0.0285	0.0000	0.0000	0.0288
Total	**1.0000e-005**	**1.0000e-005**	**1.0000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**		**0.0285**	**0.0285**	**0.0000**	**0.0000**	**0.0288**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2082	0.2788	1.5694	3.2900e-003	0.3364	2.8000e-003	0.3392	0.0900	2.6200e-003	0.0926		304.1525	304.1525	0.0202	0.0190	310.3307
Unmitigated	0.2094	0.2824	1.5898	3.3500e-003	0.3432	2.8500e-003	0.3461	0.0918	2.6700e-003	0.0945		310.0041	310.0041	0.0204	0.0193	316.2663

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	594.58	594.58	594.58	915,669	897,356
Total	594.58	594.58	594.58	915,669	897,356

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.526576	0.053500	0.175633	0.147803	0.024189	0.006487	0.014618	0.022827	0.000697	0.000286	0.023187	0.001433	0.002764

5.0 Energy Detail

Historical Energy Use: N

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000		8.8521	8.8521	1.4300e-003	1.7000e-004	8.9396
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000		8.8521	8.8521	1.4300e-003	1.7000e-004	8.9396
NaturalGas Mitigated	6.9000e-004	6.2800e-003	5.2800e-003	4.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004		6.8396	6.8396	1.3000e-004	1.3000e-004	6.8802
NaturalGas Unmitigated	6.9000e-004	6.2800e-003	5.2800e-003	4.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004		6.8396	6.8396	1.3000e-004	1.3000e-004	6.8802

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Strip Mall	128169	6.9000e-004	6.2800e-003	5.2800e-003	4.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004		6.8396	6.8396	1.3000e-004	1.3000e-004	6.8802
Total		**6.9000e-004**	**6.2800e-003**	**5.2800e-003**	**4.0000e-005**		**4.8000e-004**	**4.8000e-004**		**4.8000e-004**	**4.8000e-004**		**6.8396**	**6.8396**	**1.3000e-004**	**1.3000e-004**	**6.8802**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Strip Mall	128169	6.9000e-004	6.2800e-003	5.2800e-003	4.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004		6.8396	6.8396	1.3000e-004	1.3000e-004	6.8802
Total		**6.9000e-004**	**6.2800e-003**	**5.2800e-003**	**4.0000e-005**		**4.8000e-004**	**4.8000e-004**		**4.8000e-004**	**4.8000e-004**		**6.8396**	**6.8396**	**1.3000e-004**	**1.3000e-004**	**6.8802**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	95673.6	8.8521	1.4300e-003	1.7000e-004	8.9396
Total		**8.8521**	**1.4300e-003**	**1.7000e-004**	**8.9396**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	95673.6	8.8521	1.4300e-003	1.7000e-004	8.9396
Total		**8.8521**	**1.4300e-003**	**1.7000e-004**	**8.9396**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0556	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.1000e-004	2.1000e-004	0.0000	0.0000	2.3000e-004
Unmitigated	0.0556	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000	0.0000	2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.4000e-003					0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0472					0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000	0.0000	2.3000e-004
Total	**0.0556**	**0.0000**	**1.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.4000e-003					0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0472					0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.1000e-004	2.1000e-004	0.0000	0.0000	2.3000e-004
Total	**0.0556**	**0.0000**	**1.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.9095	0.0293	7.0000e-004	1.8497
Unmitigated	0.9095	0.0293	7.0000e-004	1.8497

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	0.894796 / 0.548423	0.9095	0.0293	7.0000e-004	1.8497
Total		**0.9095**	**0.0293**	**7.0000e-004**	**1.8497**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	0.894796 / 0.548423	0.9095	0.0293	7.0000e-004	1.8497
Total		**0.9095**	**0.0293**	**7.0000e-004**	**1.8497**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.5739	0.1521	0.0000	6.3768
Unmitigated	2.5739	0.1521	0.0000	6.3768

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	12.68	2.5739	0.1521	0.0000	6.3768
Total		**2.5739**	**0.1521**	**0.0000**	**6.3768**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	12.68	2.5739	0.1521	0.0000	6.3768
Total		**2.5739**	**0.1521**	**0.0000**	**6.3768**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Highland and Nebraska - Commercial HHD Operations

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	12.06	1000sqft	2.20	12,060.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2026
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage provided by Applicant.

Construction Phase - HHD Operational Run Only

Off-road Equipment - HHD Operational Run Only

Trips and VMT - HHD Operational Run Only

Vehicle Trips - Estimated 10 HHD trips per week.

Fleet Mix - Estimating all deliveres are HHD.

Consumer Products - HHD Operational Run Only

Area Coating - HHD Operational Run Only

Landscape Equipment - HHD Operational Run Only

Solid Waste - HHD Operational Run Only

Water And Wastewater - HHD Operational Run Only

Highland and Nebraska - Commercial HHD Operations - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Energy Use - HHD Operational Run Only

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	6030	0
tblAreaCoating	Area_Nonresidential_Interior	18090	0
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	220.00	0.00
tblConstructionPhase	PhaseEndDate	12/5/2023	1/31/2023
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	3.71	0.00
tblEnergyUse	NT24E	2.30	0.00
tblEnergyUse	NT24NG	2.08	0.00
tblEnergyUse	T24E	1.91	0.00
tblEnergyUse	T24NG	8.53	0.00
tblFleetMix	HHD	0.02	1.00
tblFleetMix	LDA	0.53	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	6.4870e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.15	0.00
tblFleetMix	MH	2.7640e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	6.9700e-004	0.00
tblFleetMix	SBUS	1.4330e-003	0.00
tblFleetMix	UBUS	2.8600e-004	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandscapeEquipment	NumberSummerDays	180	0
tblLandUse	LotAcreage	0.28	2.20
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblSolidWaste	SolidWasteGenerationRate	12.66	0.00
tblTripsAndVMT	VendorTripNumber	2.00	0.00
tblTripsAndVMT	WorkerTripNumber	4.00	0.00
tblVehicleTrips	CC_TTP	64.40	0.00
tblVehicleTrips	CNW_TL	7.30	50.00
tblVehicleTrips	CNW_TTP	19.00	100.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	42.04	0.12
tblVehicleTrips	SU_TR	20.43	0.12
tblVehicleTrips	WD_TR	44.32	0.12
tblWater	IndoorWaterUseRate	893,314.61	0.00
tblWater	OutdoorWaterUseRate	547,515.41	0.00

2.0 Emissions Summary

Highland and Nebraska - Commercial HHD Operations - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	**Start Date**	**End Date**	**Maximum Unmitigated ROG + NOX (tons/quarter)**	**Maximum Mitigated ROG + NOX (tons/quarter)**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	9.2000e-004	0.0717	0.0106	3.5000e-004	0.0111	7.6000e-004	0.0118	3.0400e-003	7.2000e-004	3.7700e-003	0.0000	33.3649	33.3649	1.9000e-004	5.2500e-003	34.9332
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.2000e-004**	**0.0717**	**0.0106**	**3.5000e-004**	**0.0111**	**7.6000e-004**	**0.0118**	**3.0400e-003**	**7.2000e-004**	**3.7700e-003**	**0.0000**	**33.3649**	**33.3649**	**1.9000e-004**	**5.2500e-003**	**34.9332**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	9.2000e-004	0.0717	0.0106	3.5000e-004	0.0111	7.6000e-004	0.0118	3.0400e-003	7.2000e-004	3.7700e-003	0.0000	33.3649	33.3649	1.9000e-004	5.2500e-003	34.9332
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.2000e-004**	**0.0717**	**0.0106**	**3.5000e-004**	**0.0111**	**7.6000e-004**	**0.0118**	**3.0400e-003**	**7.2000e-004**	**3.7700e-003**	**0.0000**	**33.3649**	**33.3649**	**1.9000e-004**	**5.2500e-003**	**34.9332**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	2/1/2023	1/31/2023	5	0	

Acres of Grading (Site Preparation Phase): 0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	0	8.00	231	0.29
Building Construction	Forklifts	0	7.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.2000e-004	0.0717	0.0106	3.5000e-004	0.0111	7.6000e-004	0.0118	3.0400e-003	7.2000e-004	3.7700e-003	0.0000	33.3649	33.3649	1.9000e-004	5.2500e-003	34.9332
Unmitigated	9.2000e-004	0.0717	0.0106	3.5000e-004	0.0111	7.6000e-004	0.0118	3.0400e-003	7.2000e-004	3.7700e-003	0.0000	33.3649	33.3649	1.9000e-004	5.2500e-003	34.9332

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	1.42	1.42	1.42	25,900	25,900
Total	1.42	1.42	1.42	25,900	25,900

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Strip Mall	9.50	7.30	50.00	0.00	0.00	100.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Strip Mall	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Strip Mall	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Highland and Nebraska - Phase 4 - Commercial

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	20.59	1000sqft	3.75	20,590.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2027
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage provided by Applicant.

Construction Phase -

Trips and VMT -

Vehicle Trips - Traffic Study provided by Applicant.

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblLandUse	LotAcreage	0.47	3.75

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	ST_TR	42.04	49.22
tblVehicleTrips	SU_TR	20.43	49.22
tblVehicleTrips	WD_TR	44.32	49.22

2.0 Emissions Summary

Highland and Nebraska - Phase 4 - Commercial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2026	0.1388	1.2720	1.5841	2.7700e-003	0.0852	0.0533	0.1385	0.0411	0.0501	0.0911	0.0000	239.0360	239.0360	0.0558	8.6000e-004	240.6866
2027	0.1858	0.3809	0.5192	8.8000e-004	3.3300e-003	0.0163	0.0197	9.0000e-004	0.0153	0.0162	0.0000	75.9562	75.9562	0.0179	2.4000e-004	76.4758
Maximum	**0.1858**	**1.2720**	**1.5841**	**2.7700e-003**	**0.0852**	**0.0533**	**0.1385**	**0.0411**	**0.0501**	**0.0911**	**0.0000**	**239.0360**	**239.0360**	**0.0558**	**8.6000e-004**	**240.6866**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2026	0.1388	1.2720	1.5841	2.7700e-003	0.0380	0.0533	0.0913	0.0173	0.0501	0.0673	0.0000	239.0357	239.0357	0.0558	8.6000e-004	240.6863
2027	0.1858	0.3809	0.5192	8.8000e-004	3.3300e-003	0.0163	0.0197	9.0000e-004	0.0153	0.0162	0.0000	75.9561	75.9561	0.0179	2.4000e-004	76.4757
Maximum	**0.1858**	**1.2720**	**1.5841**	**2.7700e-003**	**0.0380**	**0.0533**	**0.0913**	**0.0173**	**0.0501**	**0.0673**	**0.0000**	**239.0357**	**239.0357**	**0.0558**	**8.6000e-004**	**240.6863**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**53.37**	**0.00**	**29.87**	**56.64**	**0.00**	**22.14**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**4-3-2026**	**7-2-2026**	0.5017	0.5017
2	**7-3-2026**	**10-2-2026**	0.4598	0.4598
3	**10-3-2026**	**1-2-2027**	0.4601	0.4601
4	**1-3-2027**	**4-2-2027**	0.4022	0.4022
5	**4-3-2027**	**7-2-2027**	0.1600	0.1600
		Highest	0.5017	0.5017

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0948	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004
Energy	1.1800e-003	0.0107	9.0000e-003	6.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	26.7460	26.7460	2.6600e-003	5.1000e-004	26.9644
Mobile	0.3395	0.4611	2.5994	5.5400e-003	0.5850	4.6500e-003	0.5896	0.1565	4.3600e-003	0.1608	0.0000	512.3991	512.3991	0.0330	0.0318	522.6930
Waste						0.0000	0.0000		0.0000	0.0000	4.3887	0.0000	4.3887	0.2594	0.0000	10.8727
Water						0.0000	0.0000		0.0000	0.0000	0.4839	1.0663	1.5501	0.0499	1.1900e-003	3.1528
Total	**0.4354**	**0.4718**	**2.6086**	**5.6000e-003**	**0.5850**	**5.4600e-003**	**0.5904**	**0.1565**	**5.1700e-003**	**0.1617**	**4.8725**	**540.2117**	**545.0843**	**0.3449**	**0.0335**	**563.6834**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0948	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.6000e-004	3.6000e-004	0.0000	0.0000	3.9000e-004
Energy	1.1800e-003	0.0107	9.0000e-003	6.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	26.7460	26.7460	2.6600e-003	5.1000e-004	26.9644
Mobile	0.3375	0.4552	2.5662	5.4300e-003	0.5733	4.5700e-003	0.5779	0.1534	4.2800e-003	0.1576	0.0000	502.7285	502.7285	0.0327	0.0313	512.8838
Waste						0.0000	0.0000		0.0000	0.0000	4.3887	0.0000	4.3887	0.2594	0.0000	10.8727
Water						0.0000	0.0000		0.0000	0.0000	0.4839	1.0663	1.5501	0.0499	1.1900e-003	3.1528
Total	**0.4334**	**0.4659**	**2.5754**	**5.4900e-003**	**0.5733**	**5.3800e-003**	**0.5787**	**0.1534**	**5.0900e-003**	**0.1584**	**4.8725**	**530.5411**	**535.4136**	**0.3446**	**0.0330**	**553.8741**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.46**	**1.25**	**1.27**	**1.96**	**2.00**	**1.47**	**2.00**	**2.00**	**1.55**	**1.99**	**0.00**	**1.79**	**1.77**	**0.09**	**1.31**	**1.74**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/3/2026	4/9/2026	5	5	
2	Grading	Grading	4/10/2026	4/21/2026	5	8	
3	Building Construction	Building Construction	4/22/2026	3/9/2027	5	230	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Paving	Paving	3/10/2027	4/2/2027	5	18	
5	Architectural Coating	Architectural Coating	4/3/2027	4/28/2027	5	18	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 30,885; Non-Residential Outdoor: 10,295; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	7.00	3.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1800e-003	0.0631	0.0448	1.0000e-004		2.7200e-003	2.7200e-003		2.5000e-003	2.5000e-003	0.0000	8.3668	8.3668	2.7100e-003	0.0000	8.4344
Total	**6.1800e-003**	**0.0631**	**0.0448**	**1.0000e-004**	**0.0491**	**2.7200e-003**	**0.0519**	**0.0253**	**2.5000e-003**	**0.0278**	**0.0000**	**8.3668**	**8.3668**	**2.7100e-003**	**0.0000**	**8.4344**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	6.0000e-005	8.6000e-004	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2567	0.2567	1.0000e-005	1.0000e-005	0.2588
Total	**1.1000e-004**	**6.0000e-005**	**8.6000e-004**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2567**	**0.2567**	**1.0000e-005**	**1.0000e-005**	**0.2588**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0192	0.0000	0.0192	9.8500e-003	0.0000	9.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1800e-003	0.0631	0.0448	1.0000e-004		2.7200e-003	2.7200e-003		2.5000e-003	2.5000e-003	0.0000	8.3667	8.3667	2.7100e-003	0.0000	8.4344
Total	**6.1800e-003**	**0.0631**	**0.0448**	**1.0000e-004**	**0.0192**	**2.7200e-003**	**0.0219**	**9.8500e-003**	**2.5000e-003**	**0.0124**	**0.0000**	**8.3667**	**8.3667**	**2.7100e-003**	**0.0000**	**8.4344**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Site Preparation - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	6.0000e-005	8.6000e-004	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2567	0.2567	1.0000e-005	1.0000e-005	0.2588
Total	**1.1000e-004**	**6.0000e-005**	**8.6000e-004**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2567**	**0.2567**	**1.0000e-005**	**1.0000e-005**	**0.2588**

3.3 Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0283	0.0000	0.0283	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0900e-003	0.0613	0.0582	1.2000e-004		2.4900e-003	2.4900e-003		2.2900e-003	2.2900e-003	0.0000	10.4279	10.4279	3.3700e-003	0.0000	10.5122
Total	**6.0900e-003**	**0.0613**	**0.0582**	**1.2000e-004**	**0.0283**	**2.4900e-003**	**0.0308**	**0.0137**	**2.2900e-003**	**0.0160**	**0.0000**	**10.4279**	**10.4279**	**3.3700e-003**	**0.0000**	**10.5122**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	8.0000e-005	1.1400e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3423	0.3423	1.0000e-005	1.0000e-005	0.3451
Total	**1.5000e-004**	**8.0000e-005**	**1.1400e-003**	**0.0000**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.3423**	**0.3423**	**1.0000e-005**	**1.0000e-005**	**0.3451**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0111	0.0000	0.0111	5.3400e-003	0.0000	5.3400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0900e-003	0.0613	0.0582	1.2000e-004		2.4900e-003	2.4900e-003		2.2900e-003	2.2900e-003	0.0000	10.4279	10.4279	3.3700e-003	0.0000	10.5122
Total	**6.0900e-003**	**0.0613**	**0.0582**	**1.2000e-004**	**0.0111**	**2.4900e-003**	**0.0135**	**5.3400e-003**	**2.2900e-003**	**7.6300e-003**	**0.0000**	**10.4279**	**10.4279**	**3.3700e-003**	**0.0000**	**10.5122**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	8.0000e-005	1.1400e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3423	0.3423	1.0000e-005	1.0000e-005	0.3451
Total	**1.5000e-004**	**8.0000e-005**	**1.1400e-003**	**0.0000**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.3423**	**0.3423**	**1.0000e-005**	**1.0000e-005**	**0.3451**

3.4 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1244	1.1347	1.4637	2.4500e-003		0.0480	0.0480		0.0452	0.0452	0.0000	211.0467	211.0467	0.0496	0.0000	212.2870
Total	**0.1244**	**1.1347**	**1.4637**	**2.4500e-003**		**0.0480**	**0.0480**		**0.0452**	**0.0452**	**0.0000**	**211.0467**	**211.0467**	**0.0496**	**0.0000**	**212.2870**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7000e-004	0.0119	3.3800e-003	5.0000e-005	1.8100e-003	8.0000e-005	1.8900e-003	5.2000e-004	7.0000e-005	6.0000e-004	0.0000	4.9620	4.9620	2.0000e-005	7.5000e-004	5.1851
Worker	1.5800e-003	9.0000e-004	0.0121	4.0000e-005	5.0900e-003	2.0000e-005	5.1100e-003	1.3500e-003	2.0000e-005	1.3700e-003	0.0000	3.6337	3.6337	9.0000e-005	9.0000e-005	3.6639
Total	**1.8500e-003**	**0.0128**	**0.0155**	**9.0000e-005**	**6.9000e-003**	**1.0000e-004**	**7.0000e-003**	**1.8700e-003**	**9.0000e-005**	**1.9700e-003**	**0.0000**	**8.5957**	**8.5957**	**1.1000e-004**	**8.4000e-004**	**8.8490**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1244	1.1347	1.4637	2.4500e-003		0.0480	0.0480		0.0452	0.0452	0.0000	211.0465	211.0465	0.0496	0.0000	212.2867
Total	**0.1244**	**1.1347**	**1.4637**	**2.4500e-003**		**0.0480**	**0.0480**		**0.0452**	**0.0452**	**0.0000**	**211.0465**	**211.0465**	**0.0496**	**0.0000**	**212.2867**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7000e-004	0.0119	3.3800e-003	5.0000e-005	1.8100e-003	8.0000e-005	1.8900e-003	5.2000e-004	7.0000e-005	6.0000e-004	0.0000	4.9620	4.9620	2.0000e-005	7.5000e-004	5.1851
Worker	1.5800e-003	9.0000e-004	0.0121	4.0000e-005	5.0900e-003	2.0000e-005	5.1100e-003	1.3500e-003	2.0000e-005	1.3700e-003	0.0000	3.6337	3.6337	9.0000e-005	9.0000e-005	3.6639
Total	**1.8500e-003**	**0.0128**	**0.0155**	**9.0000e-005**	**6.9000e-003**	**1.0000e-004**	**7.0000e-003**	**1.8700e-003**	**9.0000e-005**	**1.9700e-003**	**0.0000**	**8.5957**	**8.5957**	**1.1000e-004**	**8.4000e-004**	**8.8490**

3.4 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0328	0.2993	0.3860	6.5000e-004		0.0127	0.0127		0.0119	0.0119	0.0000	55.6607	55.6607	0.0131	0.0000	55.9878
Total	**0.0328**	**0.2993**	**0.3860**	**6.5000e-004**		**0.0127**	**0.0127**		**0.0119**	**0.0119**	**0.0000**	**55.6607**	**55.6607**	**0.0131**	**0.0000**	**55.9878**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0000e-005	3.1100e-003	8.8000e-004	1.0000e-005	4.8000e-004	2.0000e-005	5.0000e-004	1.4000e-004	2.0000e-005	1.6000e-004	0.0000	1.2809	1.2809	1.0000e-005	1.9000e-004	1.3384
Worker	3.9000e-004	2.2000e-004	3.0100e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	0.0000	3.6000e-004	0.0000	0.9300	0.9300	2.0000e-005	2.0000e-005	0.9375
Total	**4.6000e-004**	**3.3300e-003**	**3.8900e-003**	**2.0000e-005**	**1.8200e-003**	**3.0000e-005**	**1.8500e-003**	**5.0000e-004**	**2.0000e-005**	**5.2000e-004**	**0.0000**	**2.2109**	**2.2109**	**3.0000e-005**	**2.1000e-004**	**2.2760**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0328	0.2993	0.3860	6.5000e-004		0.0127	0.0127		0.0119	0.0119	0.0000	55.6606	55.6606	0.0131	0.0000	55.9877
Total	**0.0328**	**0.2993**	**0.3860**	**6.5000e-004**		**0.0127**	**0.0127**		**0.0119**	**0.0119**	**0.0000**	**55.6606**	**55.6606**	**0.0131**	**0.0000**	**55.9877**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0000e-005	3.1100e-003	8.8000e-004	1.0000e-005	4.8000e-004	2.0000e-005	5.0000e-004	1.4000e-004	2.0000e-005	1.6000e-004	0.0000	1.2809	1.2809	1.0000e-005	1.9000e-004	1.3384
Worker	3.9000e-004	2.2000e-004	3.0100e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	0.0000	3.6000e-004	0.0000	0.9300	0.9300	2.0000e-005	2.0000e-005	0.9375
Total	**4.6000e-004**	**3.3300e-003**	**3.8900e-003**	**2.0000e-005**	**1.8200e-003**	**3.0000e-005**	**1.8500e-003**	**5.0000e-004**	**2.0000e-005**	**5.2000e-004**	**0.0000**	**2.2109**	**2.2109**	**3.0000e-005**	**2.1000e-004**	**2.2760**

3.5 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.3800e-003	0.0678	0.1096	1.7000e-004		3.1700e-003	3.1700e-003		2.9300e-003	2.9300e-003	0.0000	14.7404	14.7404	4.6300e-003	0.0000	14.8562
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.3800e-003**	**0.0678**	**0.1096**	**1.7000e-004**		**3.1700e-003**	**3.1700e-003**		**2.9300e-003**	**2.9300e-003**	**0.0000**	**14.7404**	**14.7404**	**4.6300e-003**	**0.0000**	**14.8562**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2000e-004	2.3000e-004	3.2300e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4400e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	0.9965	0.9965	2.0000e-005	3.0000e-005	1.0045
Total	**4.2000e-004**	**2.3000e-004**	**3.2300e-003**	**1.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4400e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**0.9965**	**0.9965**	**2.0000e-005**	**3.0000e-005**	**1.0045**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.3800e-003	0.0678	0.1096	1.7000e-004		3.1700e-003	3.1700e-003		2.9300e-003	2.9300e-003	0.0000	14.7404	14.7404	4.6300e-003	0.0000	14.8562
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.3800e-003**	**0.0678**	**0.1096**	**1.7000e-004**		**3.1700e-003**	**3.1700e-003**		**2.9300e-003**	**2.9300e-003**	**0.0000**	**14.7404**	**14.7404**	**4.6300e-003**	**0.0000**	**14.8562**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2000e-004	2.3000e-004	3.2300e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4400e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	0.9965	0.9965	2.0000e-005	3.0000e-005	1.0045
Total	**4.2000e-004**	**2.3000e-004**	**3.2300e-003**	**1.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4400e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**0.9965**	**0.9965**	**2.0000e-005**	**3.0000e-005**	**1.0045**

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1432					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5400e-003	0.0103	0.0163	3.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	2.2979	2.2979	1.3000e-004	0.0000	2.3011
Total	**0.1447**	**0.0103**	**0.0163**	**3.0000e-005**		**4.6000e-004**	**4.6000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.3000e-004**	**0.0000**	**2.3011**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.6000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0498	0.0498	0.0000	0.0000	0.0502
Total	**2.0000e-005**	**1.0000e-005**	**1.6000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0498**	**0.0498**	**0.0000**	**0.0000**	**0.0502**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1432					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5400e-003	0.0103	0.0163	3.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	2.2979	2.2979	1.3000e-004	0.0000	2.3011
Total	**0.1447**	**0.0103**	**0.0163**	**3.0000e-005**		**4.6000e-004**	**4.6000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.3000e-004**	**0.0000**	**2.3011**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.6000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0498	0.0498	0.0000	0.0000	0.0502
Total	**2.0000e-005**	**1.0000e-005**	**1.6000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0498**	**0.0498**	**0.0000**	**0.0000**	**0.0502**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3375	0.4552	2.5662	5.4300e-003	0.5733	4.5700e-003	0.5779	0.1534	4.2800e-003	0.1576	0.0000	502.7285	502.7285	0.0327	0.0313	512.8838
Unmitigated	0.3395	0.4611	2.5994	5.5400e-003	0.5850	4.6500e-003	0.5896	0.1565	4.3600e-003	0.1608	0.0000	512.3991	512.3991	0.0330	0.0318	522.6930

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	1,013.44	1,013.44	1013.44	1,560,731	1,529,516
Total	1,013.44	1,013.44	1,013.44	1,560,731	1,529,516

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.531212	0.053720	0.175693	0.143990	0.023462	0.006329	0.014830	0.022874	0.000693	0.000284	0.022838	0.001406	0.002670

5.0 Energy Detail

Historical Energy Use: N

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	15.0881	15.0881	2.4400e-003	3.0000e-004	15.2373
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	15.0881	15.0881	2.4400e-003	3.0000e-004	15.2373
NaturalGas Mitigated	1.1800e-003	0.0107	9.0000e-003	6.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	11.6579	11.6579	2.2000e-004	2.1000e-004	11.7271
NaturalGas Unmitigated	1.1800e-003	0.0107	9.0000e-003	6.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	11.6579	11.6579	2.2000e-004	2.1000e-004	11.7271

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Strip Mall	218460	1.1800e-003	0.0107	9.0000e-003	6.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	11.6579	11.6579	2.2000e-004	2.1000e-004	11.7271
Total		**1.1800e-003**	**0.0107**	**9.0000e-003**	**6.0000e-005**		**8.1000e-004**	**8.1000e-004**		**8.1000e-004**	**8.1000e-004**	**0.0000**	**11.6579**	**11.6579**	**2.2000e-004**	**2.1000e-004**	**11.7271**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Strip Mall	218460	1.1800e-003	0.0107	9.0000e-003	6.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	11.6579	11.6579	2.2000e-004	2.1000e-004	11.7271
Total		**1.1800e-003**	**0.0107**	**9.0000e-003**	**6.0000e-005**		**8.1000e-004**	**8.1000e-004**		**8.1000e-004**	**8.1000e-004**	**0.0000**	**11.6579**	**11.6579**	**2.2000e-004**	**2.1000e-004**	**11.7271**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	163073	15.0881	2.4400e-003	3.0000e-004	15.2373
Total		**15.0881**	**2.4400e-003**	**3.0000e-004**	**15.2373**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	163073	15.0881	2.4400e-003	3.0000e-004	15.2373
Total		**15.0881**	**2.4400e-003**	**3.0000e-004**	**15.2373**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Highland and Nebraska - Phase 4 - Commercial - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0948	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.6000e-004	3.6000e-004	0.0000	0.0000	3.9000e-004
Unmitigated	0.0948	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0143					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0804					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004
Total	**0.0948**	**0.0000**	**1.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.7000e-004**	**3.7000e-004**	**0.0000**	**0.0000**	**3.9000e-004**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0143					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0804					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.6000e-004	3.6000e-004	0.0000	0.0000	3.9000e-004
Total	**0.0948**	**0.0000**	**1.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.6000e-004**	**3.6000e-004**	**0.0000**	**0.0000**	**3.9000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.5501	0.0499	1.1900e-003	3.1528
Unmitigated	1.5501	0.0499	1.1900e-003	3.1528

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	1.52515 / 0.934771	1.5501	0.0499	1.1900e-003	3.1528
Total		**1.5501**	**0.0499**	**1.1900e-003**	**3.1528**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	1.52515 / 0.934771	1.5501	0.0499	1.1900e-003	3.1528
Total		**1.5501**	**0.0499**	**1.1900e-003**	**3.1528**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.3887	0.2594	0.0000	10.8727
Unmitigated	4.3887	0.2594	0.0000	10.8727

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	21.62	4.3887	0.2594	0.0000	10.8727
Total		**4.3887**	**0.2594**	**0.0000**	**10.8727**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	21.62	4.3887	0.2594	0.0000	10.8727
Total		**4.3887**	**0.2594**	**0.0000**	**10.8727**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Highland and Nebraska - Commercial HHD Operations

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	20.59	1000sqft	3.75	20,590.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2027
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage provided by Applicant.

Construction Phase - HHD Operational Run Only

Off-road Equipment - HHD Operational Run Only

Trips and VMT - HHD Operational Run Only

Vehicle Trips - Estimated 10 HHD trips per week.

Fleet Mix - Estimating all deliveres are HHD.

Consumer Products - HHD Operational Run Only

Area Coating - HHD Operational Run Only

Landscape Equipment - HHD Operational Run Only

Solid Waste - HHD Operational Run Only

Water And Wastewater - HHD Operational Run Only

Highland and Nebraska - Commercial HHD Operations - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Energy Use - HHD Operational Run Only

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	10295	0
tblAreaCoating	Area_Nonresidential_Interior	30885	0
tblConstructionPhase	NumDays	230.00	0.00
tblConstructionPhase	PhaseEndDate	2/18/2027	4/2/2026
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	3.71	0.00
tblEnergyUse	NT24E	2.30	0.00
tblEnergyUse	NT24NG	2.08	0.00
tblEnergyUse	T24E	1.91	0.00
tblEnergyUse	T24NG	8.53	0.00
tblFleetMix	HHD	0.02	1.00
tblFleetMix	LDA	0.53	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	6.3290e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MH	2.6700e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	6.9300e-004	0.00
tblFleetMix	SBUS	1.4060e-003	0.00
tblFleetMix	UBUS	2.8400e-004	0.00
tblLandscapeEquipment	NumberSummerDays	180	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandUse	LotAcreage	0.47	3.75
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblSolidWaste	SolidWasteGenerationRate	21.62	0.00
tblTripsAndVMT	VendorTripNumber	3.00	0.00
tblTripsAndVMT	WorkerTripNumber	7.00	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	64.40	0.00
tblVehicleTrips	CNW_TL	7.30	50.00
tblVehicleTrips	CNW_TTP	19.00	100.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	42.04	0.07
tblVehicleTrips	SU_TR	20.43	0.07
tblVehicleTrips	WD_TR	44.32	0.07
tblWater	IndoorWaterUseRate	1,525,153.22	0.00
tblWater	OutdoorWaterUseRate	934,771.33	0.00

2.0 Emissions Summary

Highland and Nebraska - Commercial HHD Operations - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2026	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2026	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	**Start Date**	**End Date**	**Maximum Unmitigated ROG + NOX (tons/quarter)**	**Maximum Mitigated ROG + NOX (tons/quarter)**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	9.3000e-004	0.0717	0.0107	3.4000e-004	0.0112	7.6000e-004	0.0120	3.0800e-003	7.3000e-004	3.8100e-003	0.0000	32.9759	32.9759	1.8000e-004	5.1900e-003	34.5259
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.3000e-004**	**0.0717**	**0.0107**	**3.4000e-004**	**0.0112**	**7.6000e-004**	**0.0120**	**3.0800e-003**	**7.3000e-004**	**3.8100e-003**	**0.0000**	**32.9759**	**32.9759**	**1.8000e-004**	**5.1900e-003**	**34.5259**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	9.3000e-004	0.0717	0.0107	3.4000e-004	0.0112	7.6000e-004	0.0120	3.0800e-003	7.3000e-004	3.8100e-003	0.0000	32.9759	32.9759	1.8000e-004	5.1900e-003	34.5259
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.3000e-004**	**0.0717**	**0.0107**	**3.4000e-004**	**0.0112**	**7.6000e-004**	**0.0120**	**3.0800e-003**	**7.3000e-004**	**3.8100e-003**	**0.0000**	**32.9759**	**32.9759**	**1.8000e-004**	**5.1900e-003**	**34.5259**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	4/3/2026	4/2/2026	5	0	

Acres of Grading (Site Preparation Phase): 0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Building Construction - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.3000e-004	0.0717	0.0107	3.4000e-004	0.0112	7.6000e-004	0.0120	3.0800e-003	7.3000e-004	3.8100e-003	0.0000	32.9759	32.9759	1.8000e-004	5.1900e-003	34.5259
Unmitigated	9.3000e-004	0.0717	0.0107	3.4000e-004	0.0112	7.6000e-004	0.0120	3.0800e-003	7.3000e-004	3.8100e-003	0.0000	32.9759	32.9759	1.8000e-004	5.1900e-003	34.5259

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	1.44	1.44	1.44	26,232	26,232
Total	1.44	1.44	1.44	26,232	26,232

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Strip Mall	0.00	0.00	50.00	0.00	0.00	100.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Strip Mall	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Strip Mall	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B. HEALTH RISK ASSESSMENT MODELING FILES

(Electric Files)

Toxics Calculations

On-site HHD Truck Travel

Number of Truck Trips/Year:	260	
On-site Trip Distance:	0.149	(on-site trip distance, entering and exiting)
Total Miles per Year:	39	(total trips per year x trip distance)

	PM10[3]
Em. Factor (grams/mile)[2]	7.56E-03
Lbs/Mile	1.67E-05
Lbs/Year	6.46E-04

2. Emission factors from EMFAC2021 - EF for T7 Single Other Class 8 category, diesel, aggregate model year, 15 mph.
3. Assume PM10 emissions equal DPM emissions.

Off-ste HHD Truck Travel

Number of Truck Trips/Year:	260	(HHD trips from CalEEMod)
On-site Trip Distance:	0.204	(trip distance from site entrance to Highway 62)
Total Miles per Year:	53	(total trips per year x trip distance)

	PM10[3]
Em. Factor (grams/mile)[2]	7.56E-03
Lbs/Mile	1.67E-05
Lbs/Year	8.84E-04

2. Emission factors from EMFAC2021 - EF for T7 Single Other Class 8 category, diesel, aggregate speed and model year.
3. Assume PM10 emissions equal DPM emissions.

On-site HHD Truck Idling (EACH LOCATION)

HHD trucks/year	130
Idle minutes/truck	15
Idle hours/year	33

PM10 Idling Emission Factor

Operation Year	Emission Factor[1] (g/veh/day)	Emission Factor (lb/veh/HR)
2023	2.01E-02	1.85E-06

1. EMFAC2021 PM10 IDLEX EF for T7 Single Other Class 8

Source	Source ID	Annual Emissions[1] (lb/year)	
IDLING	IDLING	6.00E-05	

1. Assume PM10 emissions equal DPM emissions.

Gasoline Service Station

Gasoline Station VOC Emission Factors

Process	Emission Factor[1] (lb/1000 gal)
Loading[2]	0.077
Breathing	0.024
Refueling	0.089
Spillage	0.24

1. Emission factors from CARB *Gasoline Service Station Industrywide Risk Assessment Technical Guidance*, February 2022, Table 9, Scenario 1.

2. Assuming no loading emissions, but 1% uncontrolled emissions due to equipment failures or defects.

Gasoline Throughput Assumption

1,764,000	**gallons/year throughput of gasoline[1]**
725	**gallons/hour throughput of gasoline[2]**

1. Maximum potential throughput of gasoline based on previous projects.

2. Max hourly throughput estimated as 15% of daily throughput.

Potential to Emit - VOC Emissions

Process	Source ID	Annual Emissions (lb/year)	Hourly Emissions[1] (lb/hour)
Loading	1	135.8	0.0558
Breathing	2	42.3	0.0174
Refueling	3	157.0	0.0645
Spillage	4	423.4	0.1740

1. Hourly emissions based on estimate of total fueling hours. Estimate based on site operational hours: 19 hours/day, 7 days/week, 52 weeks/year. Total fueling hours assumed to be half of total operational hours.

Toxic Emissions Speciation - Loading Emissions

CAS	Pollutant	Speciation Factor[1] (lb/lb VOC)	Annual Emissions (lb/year)	Hourly Emissions (lb/hr)
71432	Benzene	5.49E-03	7.46E-01	3.07E-04
100414	Ethyl benzene	1.41E-03	1.92E-01	7.89E-05
110543	n-Hexane	2.17E-02	2.95E+00	1.21E-03
91203	Naphthalene	5.97E-06	8.11E-04	3.33E-07
115071	Propylene	3.59E-05	4.88E-03	2.01E-06
108883	Toluene	1.35E-02	1.83E+00	7.52E-04
1330207	Xylenes	5.09E-03	6.92E-01	2.84E-04

1. Speciation factors for vapor speciation pulled from CARB Gasoline Service Station Industrywide Risk Assessment Technical Guidance, February 2022. Max value from Table A1 was used.

Toxic Emissions Speciation - Breathing Emissions

CAS	Pollutant	Speciation Factor[1] (lb/lb VOC)	Annual Emissions (lb/year)	Hourly Emissions (lb/hr)
71432	Benzene	5.49E-03	2.33E-01	9.56E-05
100414	Ethyl benzene	1.41E-03	5.99E-02	2.46E-05
110543	n-Hexane	2.17E-02	9.18E-01	3.77E-04
91203	Naphthalene	5.97E-06	2.53E-04	1.04E-07
115071	Propylene	3.59E-05	1.52E-03	6.25E-07
108883	Toluene	1.35E-02	5.70E-01	2.34E-04
1330207	Xylenes	5.09E-03	2.16E-01	8.86E-05

1. Speciation factors for vapor speciation pulled from CARB Gasoline Service Station Industrywide Risk Assessment Technical Guidance, February 2022. Max value from Table A1 was used.

Toxic Emissions Speciation - Refueling Emissions

CAS	Pollutant	Speciation Factor[1] (lb/lb VOC)	Annual Emissions (lb/year)	Hourly Emissions (lb/hr)
71432	Benzene	5.49E-03	8.63E-01	3.54E-04
100414	Ethyl benzene	1.41E-03	2.22E-01	9.12E-05
110543	n-Hexane	2.17E-02	3.41E+00	1.40E-03
91203	Naphthalene	5.97E-06	9.37E-04	3.85E-07
115071	Propylene	3.59E-05	5.64E-03	2.32E-06
108883	Toluene	1.35E-02	2.11E+00	8.69E-04
1330207	Xylenes	5.09E-03	8.00E-01	3.29E-04

1. Speciation factors for vapor speciation pulled from CARB Gasoline Service Station Industrywide Risk Assessment Technical Guidance, February 2022. Max value from Table A1 was used.

Toxic Emissions Speciation - Spillage Emissions

CAS	Pollutant	Speciation Factor[1] (lb/lb VOC)	Annual Emissions (lb/year)	Hourly Emissions (lb/hr)
71432	Benzene	7.15E-03	3.03E+00	1.24E-03
100414	Ethyl benzene	1.41E-02	5.99E+00	2.46E-03
110543	n-Hexane	1.89E-02	8.01E+00	3.29E-03
91203	Naphthalene	2.05E-03	8.68E-01	3.57E-04
115071	Propylene	1.22E-06	5.16E-04	2.12E-07
108883	Toluene	5.80E-02	2.46E+01	1.01E-02
1330207	Xylenes	6.91E-02	2.93E+01	1.20E-02

1. Speciation factors for liquid speciation pulled from CARB Gasoline Service Station Industrywide Risk Assessment Technical Guidance, February 2022. Max value from Table A1 was used.

Dry Cleaners

Assumptions

Proposed Per Usage	50 gallons-Perc/yr
Proposed Operating Schedule	2080 hrs/year
Waste Emission Credit*	25%
Perc Denisty	13.5 lb-Perc/gal-Perc

*Most of the solvent purchased for make-up is emitted into the air; a smaller portion (typically 20-30%) is disposed as hazardous waste; and a very small portion is retained in the fabric and offgasses over several weeks. CAPCOA recommends a waste credit of 25% for the smaller portion disposed as hazardous waste. (Air Toxics "Hot Spots" Program Perchloroethylene Dry Cleaner Industry-wide Risk Assessment Guidelines; May 18, 1999; Page 11)

Annual PE (lb-Perc/yr)	**506**
Hourly PE (lb-Perc/hr)	**0.243**

Name:	Flat Griddle - Hamburger & Steak		
Applicability:	Use this spreadsheet to calculate emissions generated from hamburger and		
Author or updater:	Matthew Cegielski	*Last Update:*	February 25, 2016
Facility:	Cartmill Crossing		
ID#:			
Project #:			

Inputs:	Capacity Ton/hr	Capacity Ton /yr	Formula
Process Rate	0.11	13.70	Emissions are calculated by the multiplication of Process Rates and Emission Factors

Substances	CAS#	Emission Factor Lb/Ton	LB/HR	LB/YR
Acenaphthene	83329	4.00E-05	4.35E-06	5.48E-04
Acenaphthylene	208968	3.20E-04	3.48E-05	4.38E-03
Anthracene	120127	3.40E-04	3.70E-05	4.66E-03
Benz[a]Anthracene	56553	1.40E-04	1.52E-05	1.92E-03
Benzo[a]Pyrene	50328	4.00E-05	4.35E-06	5.48E-04
Biphenyl	92524	1.20E-04	1.30E-05	1.64E-03
Fluoranthene	206440	1.72E-03	1.87E-04	2.36E-02
Fluorene	86737	4.20E-04	4.57E-05	5.75E-03
Naphthalene	91203	1.22E-02	1.33E-03	1.67E-01
Phenanthrene	85018	4.14E-03	4.50E-04	5.67E-02
Pyrene	129000	2.30E-03	2.50E-04	3.15E-02
Total PAH	1150	1.59E-02	1.73E-03	2.18E-01

References:

2002 NEI database (Appendix C1).

Hamburger is used as a surrogate for steak.

Pollutants required for toxic reporting: TACs w/o Risk Factor. Current as of update date.

Name:	Flat Griddle - Hamburger & Steak		
Applicability:	Use this spreadsheet to calculate emissions generated from hamburger and		
Author or updater:	Matthew Cegielski	*Last Update:*	February 25, 2016
Facility:	Cartmill Crossing		
ID#:			
Project #:			

Inputs:	Capacity Ton/hr	Capacity Ton /yr	Formula
Process Rate	0.11	13.70	Emissions are calculated by the multiplication of Process Rates and Emission Factors

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Acenaphthene	83329	4.00E-05	4.35E-06	5.48E-04
Acenaphthylene	208968	3.20E-04	3.48E-05	4.38E-03
Anthracene	120127	3.40E-04	3.70E-05	4.66E-03
Benz[a]Anthracene	56553	1.40E-04	1.52E-05	1.92E-03
Benzo[a]Pyrene	50328	4.00E-05	4.35E-06	5.48E-04
Biphenyl	92524	1.20E-04	1.30E-05	1.64E-03
Fluoranthene	206440	1.72E-03	1.87E-04	2.36E-02
Fluorene	86737	4.20E-04	4.57E-05	5.75E-03
Naphthalene	91203	1.22E-02	1.33E-03	1.67E-01
Phenanthrene	85018	4.14E-03	4.50E-04	5.67E-02
Pyrene	129000	2.30E-03	2.50E-04	3.15E-02
Total PAH	1150	1.59E-02	1.73E-03	2.18E-01

References:

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Author or updater:	Matthew Cegielski	*Last Update:*	February 25, 2016
Facility:	Cartmill Crossing		
ID#:			
Project #:			

Inputs:	Capacity Ton/hr	Capacity Ton /yr	Formula
Process Rate	0.11	13.70	Emissions are calculated by the multiplication of Process Rates and Emission Factors

Substances	CAS#	Emission Factor Lb/Ton	LB/HR	LB/YR
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Acenaphthylene	208968	3.20E-04	3.48E-05	4.38E-03
Anthracene	120127	3.40E-04	3.70E-05	4.66E-03
Benz[a]Anthracene	56553	1.40E-04	1.52E-05	1.92E-03
Benzo[a]Pyrene	50328	4.00E-05	4.35E-06	5.48E-04
Biphenyl	92524	1.20E-04	1.30E-05	1.64E-03
Fluoranthene	206440	1.72E-03	1.87E-04	2.36E-02
Fluorene	86737	4.20E-04	4.57E-05	5.75E-03
Naphthalene	91203	1.22E-02	1.33E-03	1.67E-01
Phenanthrene	85018	4.14E-03	4.50E-04	5.67E-02
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Total PAH	1150	1.59E-02	1.73E-03	2.18E-01

References:

2002 NEI database (Appendix C1).

Hamburger is used as a surrogate for steak.

Pollutants required for toxic reporting: TACs w/o Risk Factor. Current as of update date.

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VIA E-MAIL: Trevor.Stearns@qkinc.com

June 9, 2023

Trevor Stearns
Senior Associate Planner
QK Inc.
601 Pollasky Avenue, Suite 301
Clovis, CA 93612

RE: Response to Comments – Received from the City of Selma Regarding the Proposed Nebraska/Highland Project – FAQS

Dear Mr. Stearns:

Trinity Consultants (Trinity) is pleased to provide this response to comments received from the City of Selma (City) regarding the Focused Air Quality Study (FAQS) for the proposed Nebraska/Highland Project (Project). These responses pertain to specific comments therein that referred to the FAQS (March 2023) prepared by Trinity Consultants on behalf of the subject project.

Air Quality Comment Referencing AQ-1. Project Design Elements

1. **City Comment: "**Please elaborate on how to quantify these measures. As it stands these improvements cannot be quantified"

   Measures References by the City:

   "AQ-1. Project Design Elements: To ensure that the project air quality emissions calculations reflect the modeling prepared under the Focused Air Quality Study, the following modeling assumptions shall be required as mitigation measures. The applicant shall include these assumptions on the project plans and shall work with the City Planning Department to ensure these measures have been incorporated into the project designs prior to construction:

   - Improve walkability design.
   - Improve Destination Accessibility.
   - Increase Transit Accessibility.
   - Improve Pedestrian Network.
   - Use electric lawnmower, leaf blower, and chainsaw (3% per SJVAPCD).
   - No Hearths Installed."

RESPONSE: The mitigation measures applied here are standard mitigation measures within the CalEEMod Program which is the approved emission estimation model by the San Joaquin Valley Air Pollution Control District (SJVAPCD). CalEEMod quantifies the reductions based on inputs for each measure. **Figures 1 and 2**

show the CalEEMod interface with inputs used for the Project which CalEEMod used to calculate proper emission reductions. Additionally, it should be noted that the Project is ***Less Than Significant*** with or without these mitigation measures.

Figure 1

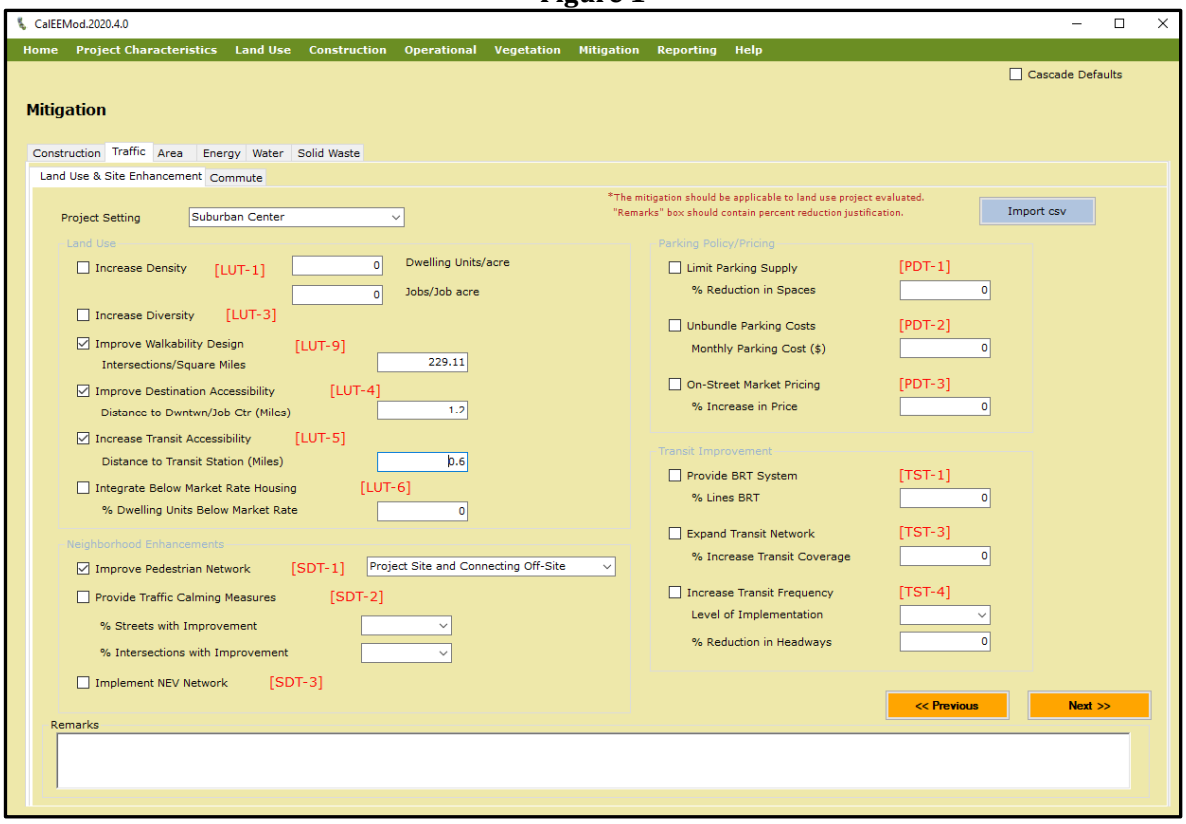
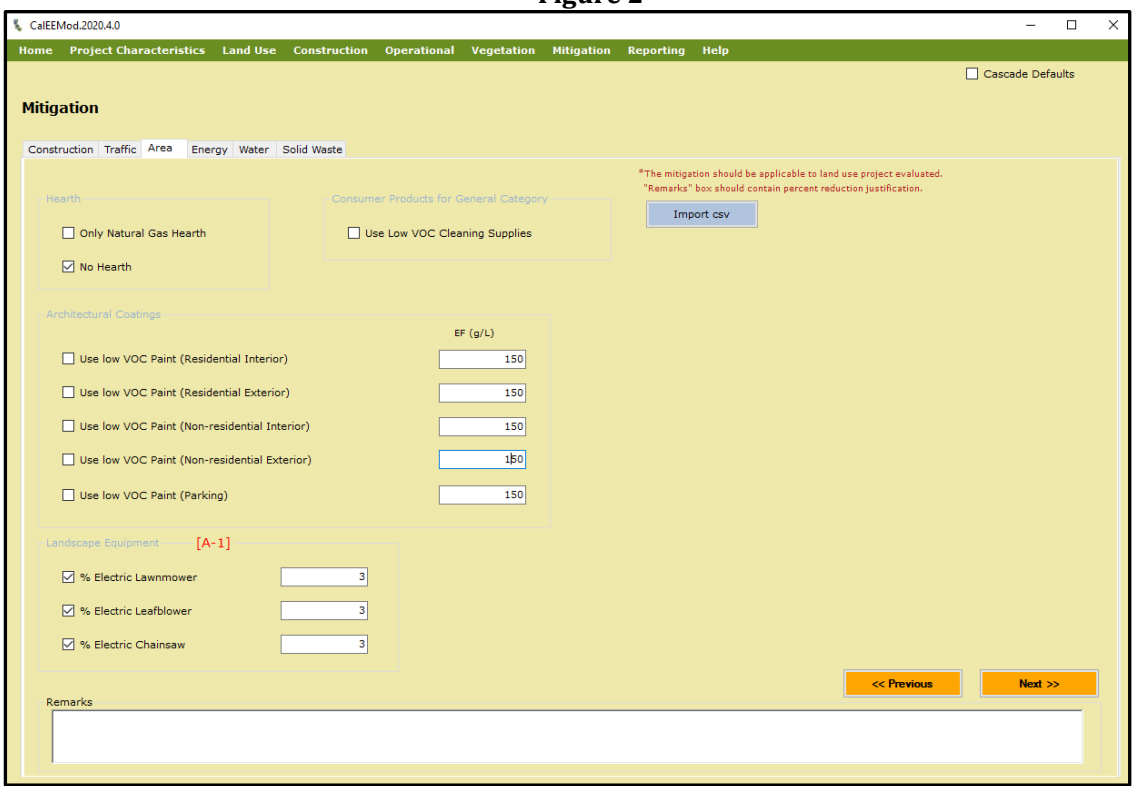


Figure 2



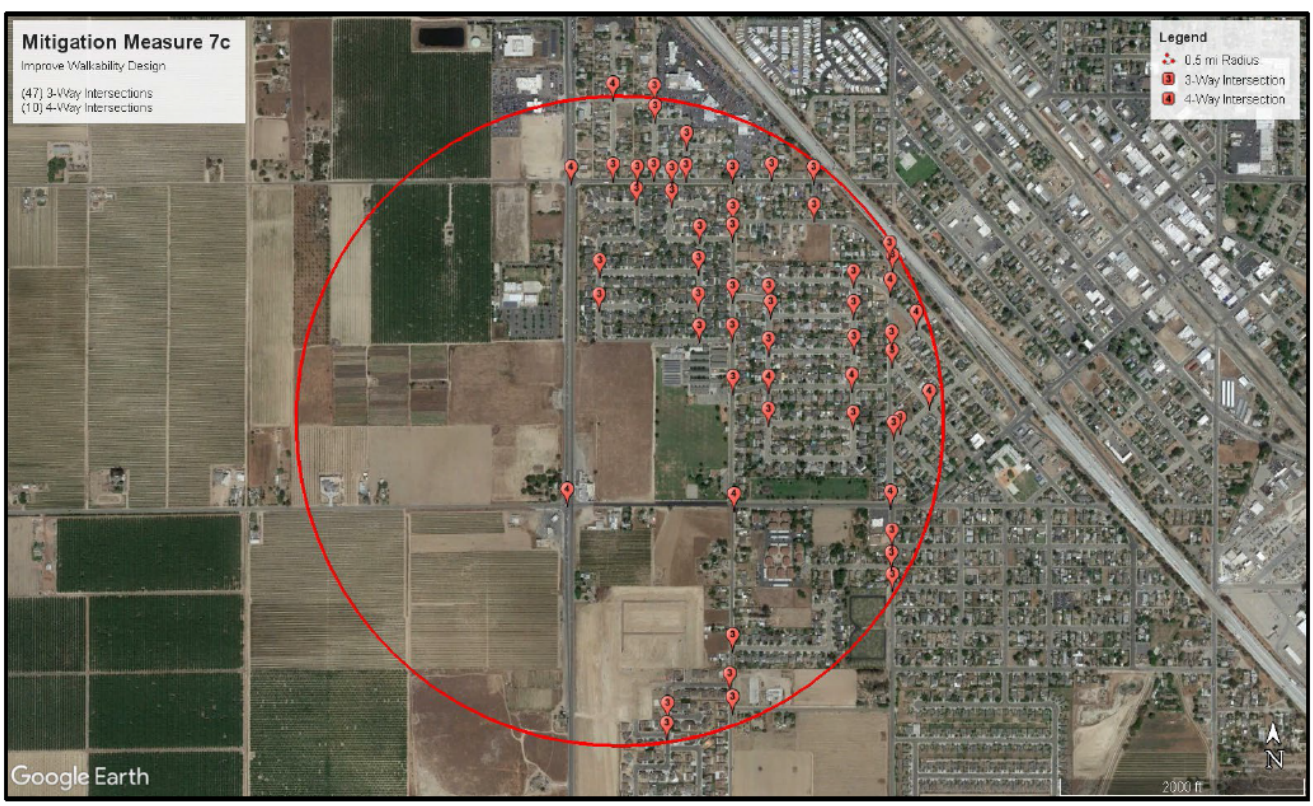
Inputs are selected based on criteria for each measure. Below we have outlined how the inputs for each measure that was selected for the Project were determined.

Improve Walkability Design. This input is determined based on number and types of intersection within 0.5 miles of the Project center and the Project itself. **Figure 3** shows how the input of 229.11 was calculated using SJVAPCD guidance in their ISR Application. The number and types of intersections were determined using Google Earth. **Figure 4** depicts the 0.5-mile radius and intersections.

Figure 3

Mitigation Measure 7c: Improve Walkability Design				
Will the project improve walkability? ☐ No, *please complete justification in Section M above* ☒ Yes, *please complete section below:*				
1. Square Miles within the Study Area: a. If the distance from the center of the project out to its farthest boundary is less than or equal to ½ mile then the Square Miles within the Study Area will be 0.79. (Enter this value in the blank to the right.) b. If the distance from the center of the project out to its farthest boundary is greater than ½ mile then calculate the area value by: Study Area Square Miles = 3.14 x radius(squared). (Enter this value in the blank to the right.)				Square Miles: **0.79**
2. Intersection within the Study Area: Number and type of intersections within the project area:	Number of 3-Way Intersections:	47	x 3 =	**141**
	Number of 4-Way Intersections:	10	x 4 =	**40**
	Number of 5-Way Intersections:	0	x 5 =	**0**
	Total Intersections (sum of above) = **181**			
3. Intersection Density within the Study Area: Intersection Density is the Study Area's 'Total Intersections' value (B.) divided by the 'Square Miles' value (A.):	**229.11** Intersections / sq. mi.			
• Will this mitigation measure be required as a condition of approval by the land use agency, by other county or municipal codes, or other? ☒ No, (*note: if checked "no" this mitigation measure will require District enforcement)* ☐ Yes, Name of enforcing agency: ____ Source of Requirement: ____				
Documentation: Please attach supporting documentation (e.g.: map) to justify number of intersections within ½ mile of the project.				☒ Attached

Figure 4
Mitigation Measure 7c: Improve Walkability Design

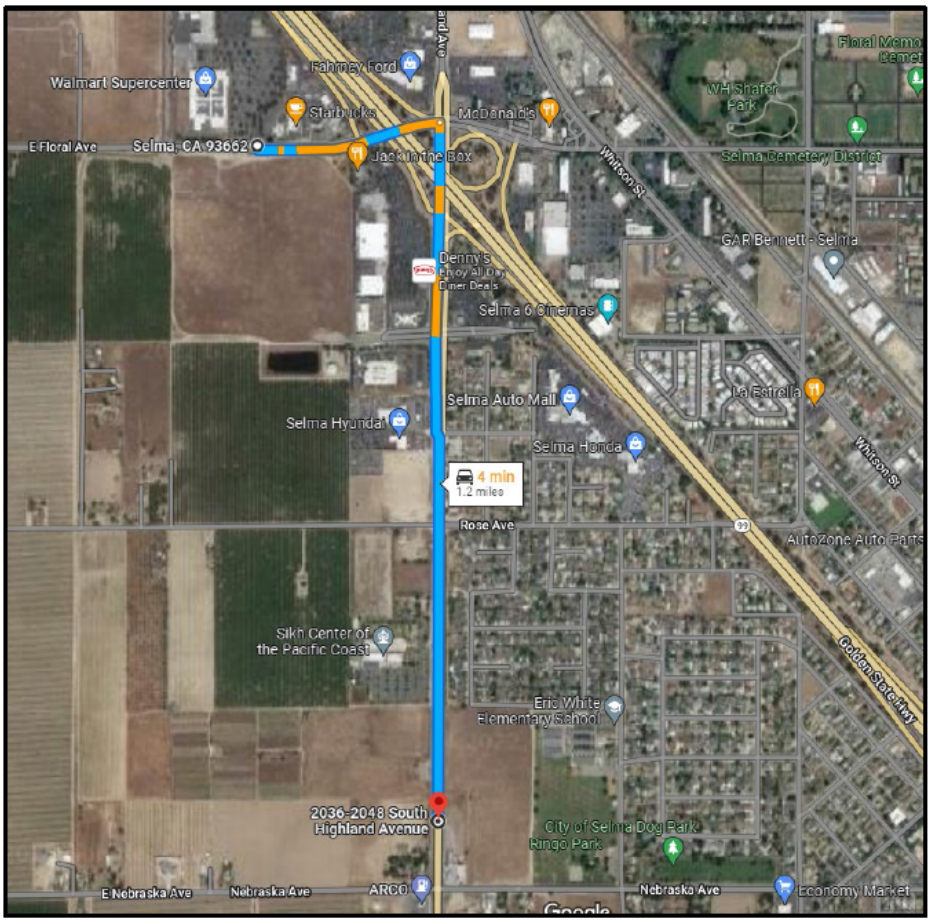


Improve Destination Accessibility. This input is determined by measuring the distance from the project to a city's downtown area or a job center which includes several businesses (ex. A large shopping center). If the project is located within 12 miles of downtown or a job center this measure can be applied. Figure 5 shows the input section on the SJAVPCD's ISR Application. Figure 6 depicts the Google Earth screenshot used to determine the 1.2-mile distance to the closest job center.

Figure 5

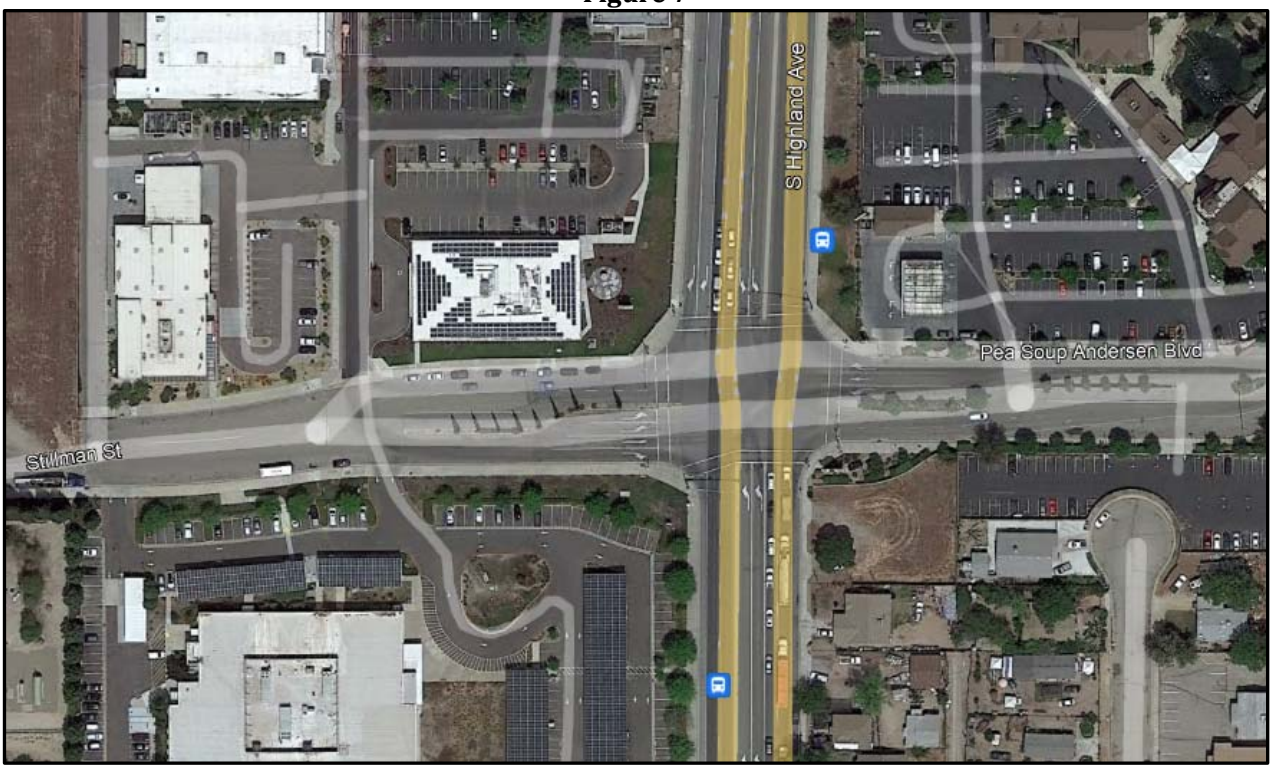
Mitigation Measure 7d: Improve Destination Accessibility	
Will the project be located within 12 miles from downtown or a job center? The location of the project may increase the potential for pedestrians to walk and bike to these destinations and therefore reduce VMT. ☐ No, *please complete justification in Section M above* ☒ Yes, *please complete section below:*	
• Distance to Downtown/Job Center (miles): **1.20** • Will this mitigation measure be required as a condition of approval by the land use agency, by other county or municipal codes, or other? ☒ No, (*note: if checked "no" this mitigation measure will require District enforcement)* ☐ Yes, Name of enforcing agency: ____ Source of Requirement: ____	
Documentation: Please attach supporting documentation (e.g.: map) to justify the distance of the project to the Downtown/Job Center.	☒ Attached

Figure 6
Mitigation Measure 7d: Improve Destination Accessibility



Increase Transit Accessibility. This input is determined based on the distance from the Project to the closest rail station or transit stop. Using Google Earth, it was determined that the Project has a transit stop located approximately 0.6 miles to the north near the intersection of Stillman Street (Pea Soup Anderson Boulevard) and S Highland Avenue. Figure 7 depicts the location of this intersection and marked transit stops.

Figure 7



Improve Pedestrian Network. This measure is selected if the Project provides pedestrian access network that internally links all uses and connects to all existing or planned external streets and pedestrian facilities contiguous with the Project Site. Reviewing the design site plans, the Project does have pedestrian access to all internal uses and access to all existing or planned external streets. Therefore, this measure was selected within CalEEMod.

Use electric lawnmower, leaf blower, and chainsaw (3% per SJVAPCD). The SJAVCD has determined that the default value for this mitigation measure is 3% used for each landscape equipment type. Anything over 3% must be justified. The Project has elected to use the default value of 3%.

No Hearths Installed. CalEEMod default emissions estimations include hearths being installed in some residential units. Since no hearths will be installed during construction of the Project this mitigation measure was selected to remove any emissions associated with hearth.

Sincerely,

Matt Daniel
Senior Consultant

Attachment F
Project Phase I Environmental Site Assessment

PHASE I ENVIRONMENTAL SITE ASSESSMENT

2850 Nebraska Avenue
Selma, California

May 11, 2022

Prepared by:
Haro Environmental, Inc.
872 Higuera Street
San Luis Obispo, California
Project 2224-2022

Prepared for:

Mr. Jeff Oliveira
Oliveira Environmental Consulting, LLC
3155 Rose Avenue
San Luis Obispo, California 93401

Prepared by:

___DRAFT_____
Elliot R. Haro
Principal Scientist

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Appendix B – Interview and Research Documentation

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EXECUTIVE SUMMARY

This Phase I Environmental Site Assessment (Phase I ESA) of the property located at 2850 Nebraska Avenue in Selma, California (the Site) was performed by Haro Environmental for Oliveira Environmental Consulting, LLC. Haro Environmental performed this Phase I ESA consistent with the American Society for Testing and Materials (ASTM) Practice E-1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM Standard). Exceptions to, or deletions from, this practice are described in this report.

The purpose of this assessment was to identify known, potential or historic recognized environmental conditions (RECs) resulting from historic and/or current uses of hazardous substances or petroleum products at the Site. We understand the current property owner is considering developing the Site and is interested in identifying environmental concerns associated with the property. The findings of this environmental assessment are based on Haro Environmental's knowledge of the Site from observations and information gathered during this Phase I ESA.

The Site is an approximately 15.6-acre property which is vacant, undeveloped land. The Site is identified by the Fresno County Assessor as Parcel Number 388-030-36.

Haro Environmental contracted a government agency database search from Environmental Data Resources (EDR). Government agency database records are sources of information that may be helpful in evaluating activities that may have contributed to a release of hazardous substances or petroleum products to soil and/or groundwater. The subject Site with an address of 2850 Nebraska Avenue was not listed in any of the databases searched by EDR. Adjacent and nearby properties were listed in multiple databases searched by EDR; however, only one which could potentially impact the Site was the Selma 76 / Selma Quick Stop / Larrys Beacon / Beacon Station #480 property located adjacent to the Site at 2004 South Highland (also addressed at 11946 South Highland). This facility was listed in the UST, CERS TANKS, CUPA LISTINGS, CERS, LUST, SWEEPS UST, CORTESE, EDR HIST AUTO, HIST UST, and EMI databases searched by EDR. The LUST listing is identified as case #5T1000747 by the Central Valley Regional Water Quality Control Board (RWQCB) and as case #FA0000344 by Fresno County Environmental Health. The case was opened in April 2000; the potential contaminant of concern was gasoline affecting an aquifer used for drinking water supply. Remedial actions were taken in the form of soil vapor extraction (SVE) and the case was closed as of April 29, 2010. Based on investigation and monitoring data obtained from the

Geotracker website[1] depth to groundwater is approximately 50 feet ground surface and average groundwater flow direction was to the south-south with a hydraulic gradient of approximately 0.002 feet per foot. Based on the case closed status and on the reported groundwater flow direction to the south-southwest away from the Site, this former release case is not expected to pose a significant environmental concern to the Site.

A review of the National Pipeline Mapping System indicates there is are no mapped natural gas transmission or hazardous liquid pipelines located within a ½-mile radius of the Site. Maps were also searched to determine the presence of oil and gas wells in the vicinity of the Site, but no wells were found within a one-mile radius of the Site.

A review of historical aerial photographs, topographic maps, and city directories listings show that the Site has been undeveloped since at least 1924. Historical documentation also indicate Highland Avenue (Highway 43) and Nebraska Avenue have been in their current locations since at least 1924.

A reconnaissance of the Site was conducted by a Haro Environmental representative on March 31, 2022. During the reconnaissance, Haro Environmental did not observe hazardous materials or petroleum hydrocarbons at or adjacent to the Site under conditions that would be expected to pose an environmental concern to the Site.

Based on the data gathered and reviewed during this Phase I ESA, Haro Environmental did not identify recognized environmental conditions or concerns that have impacted, or pose a significant environmental threat to subsurface soil, soil vapor, or groundwater beneath the Site.

Based on the data gathered and reviewed during this Phase I ESA, Haro Environmental identified the following potential environmental concerns to note.

- Historic use of the Site for agriculture. Agricultural farming practices often include the application of chemicals to control pests and weeds. Although no evidence of agricultural chemical usage at the Site was found during preparation of this Phase I ESA, because agricultural land use appears in historic aerial photographs beginning in at least 1937 and continuing through at least 1998, there is a potential residual concentrations of agricultural chemicals could persist in soils at the Site. As such, the property owner may want to consider collecting shallow soil samples from the Site and testing them for chlorinated pesticides and arsenic consistent with applicable regulatory guidance.

[1] *https://geotracker.waterboards.ca.gov*

- Vicinity to a major arterial highways. The Site is bordered to the west by Highland Avneue (Highway 43) and to the south by Nebraska Avenue. Both roads have been shown as major highways on historic maps. Based on the historical use of leaded gasoline prior to 1987, there is a potential for elevated concentrations of lead to be present in shallow soils along roads and highways constructed prior to this date [identified as aerially-deposited lead (ADL)]. ADL concentrations in soils near highways are often attributed to emissions from vehicles powered by internal-combustion engines which previously used leaded gasoline. Based on the location of the Site to nearby highways, ADL concentrations may be present in shallow soils near the western and southern property boundaries.

1.0 INTRODUCTION

This Phase I Environmental Site Assessment (Phase I ESA) of the property located at 2850 Nebraska Avenue in Selma, California (the Site) was performed by Haro Environmental for Oliveira Environmental Consulting, LLC. A site vicinity map is provided on Plate 1. Haro Environmental performed this Phase I ESA consistent with the American Society for Testing and Materials (ASTM) Practice E-1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM Standard). Exceptions to, or deletions from, this practice are described in Section 7.0 this report.

1.1 PURPOSE

This Phase I ESA was conducted in an effort to identify known, potential or historic recognized environmental conditions (RECs) resulting from historic and/or current uses of the Site. We understand this information will be used to qualify for the liability protections granted under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The ASTM Standard defines a REC as:

> "The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment." The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not recognized environmental conditions"

The ASTM Standard defines a historical REC as:

> "An environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently." For example, a historical REC could be identified if a past release of any hazardous substances or petroleum products has occurred in connection with the property and has

been remediated to the satisfaction of the lead regulatory agency as evidenced by a no further action letter or a case closure determination.

At the request of Oliveira Environmental Consulting, LLC, who we understand is representing the developer of the Site, Haro Environmental has completed this Phase I ESA. This report is subject to the limitations presented in this Phase I ESA report.

This report describes Haro Environmental's assessment methodology, presents our findings, and provides our opinion as to the potential presence of RECs in connection with the Site.

1.2 SCOPE OF SERVICES

The scope of services conducted for this study included the following tasks:

- Perform an on-site reconnaissance to identify indicators of the existence of hazardous materials or petroleum products.

- Observe adjacent or nearby properties from the Site and public thoroughfares in an attempt to see if such properties are likely to use, store, generate, or dispose of hazardous materials or petroleum products.

- Obtain and review an environmental records database search from Environmental Data Resources, Inc. (EDR) to acquire information about the potential for hazardous materials to exist at on-site or at nearby properties.

- Review the current U.S. Geological Survey (USGS) topographic map to obtain information about topography and uses of the Site and nearby properties.

- Review historic aerial photographs, topographic maps, city directories listings, and Sanborn® Fire Insurance Maps to obtain information about historic uses of the Site and adjacent properties.

- Review California Division of Oil and Gas records to obtain information about historic oil and gas activity in the vicinity of the Site.

- Conduct interviews with persons familiar with the Site development and local and/or State government agencies to obtain information about current and historic uses of the property.

- Prepare this report documenting the findings of the Phase I study.

Our scope of services did not include any inquiries with respect to non-scope ASTM considerations including but not limited to asbestos containing materials, radon gas, lead-based paint, lead in drinking water, mold, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, electromagnetic fields or geologic hazards.

2.0 SITE SETTING

The Site setting presented in this section describes the condition of the Site at the time of the Phase I ESA. Tables 2-1 and 2-2 summarize the physical characteristics of the Site and adjoining properties. A Site and Adjacent Land Use Map is provided on Plate 2.

2.1 SITE DESCRIPTION

Table 2-1 provides a summary of the physical location and size of the Site, as well as the current uses. This information was obtained from review of various maps (such as topographic maps and tax assessor maps), aerial photographs, and a site visit. Additional site description information was obtained during the site visit; please refer to the Section 5.0 of the report that covers site reconnaissance information.

TABLE 2-1
SITE LOCATION AND LAND USE

Parameter	Information/Comments
Location	The Site is bounded to the west by South Highland Avenue, to the north by Fig Street, to the south by Nebraska Avenue and to the east by Eric White Elementary School. The Site is located in an area of agricultural, commercial, and residential land uses.
Assessor's Parcel No. (APNs)	388-030-26
Section, Township, and Range	Section 6, Township 16 South, Range 22 East of the Mount Diablo Base and Meridian.
Current Use	The site is currently vacant, undeveloped land.
Current Property Owner	Karamjit Singh Nijjar

2.2 REGIONAL GEOLOGY AND HYDROGEOLOGY

Information on regional geology and hydrogeology is presented in Table 2-2. This information was obtained from published data and maps of the Site vicinity.

TABLE 2-2
PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS

Geologic/Hydrogeologic Parameter	Information/Comments
Site Topography	Based on the review of the USFS Conejo, California 7.5-Minute Topographic Quadrangle Map dated 2018, elevation at the Site is approximately 300 feet above Mean Sea Level (MSL), and the regional topographic gradient is generally flat. Surface water runoff at the Site follows the topographic gradient that slopes gently to the south.
Site Geology and Soil Types	The Site is located within the Great Valley of the California Geomorphic Provinces (CGS, 2002). The Great Valley is an alluvial plain approximately 50 miles wide by 400 miles long. The northern part is identified as the Sacramento Valley (drained by the Sacramento River) and the southern part is identified as the San Joaquin Valley (drained by the San Joaquin River). The Great Valley is a trough in which sediments have been deposited almost continuously since the Jurassic (about 160 million years ago). The Great Valley is bound by the Klamath Mountains to the north, the Sierra Nevada to the east, the Coast Ranges to the west, and the Tehachapi Mountains to the south. According to the Geologic Atlas of California - Fresno sheet, the Site is underlain by recent Quaternary-aged fan deposits of the Great Valley formation (Burnett and Matthews, 1965). According to the Geocheck® section of the EDR report (Appendix A), soils at the Site include the Delhi series of both sand and loamy sand textures and the Hesperia series. The Delhi soils have high infiltration rates and are deep and well-drained to excessively drained. The Hesperia soils have fine sandy loam textures and have moderate infiltration rates. They are deep to moderately deep, moderately well to well drained, and have moderately course textures.
Site Hydrogeologic Setting	The Site is located within the Kings Subbasin of the San Joaquin Valley Groundwater Basin (DWR, 2006). The San Joaquin Valley represents the southern portion of the Great Central Valley of California. The San Joaquin Valley is a structural trough up to 200 miles long and 70 miles wide filled with up to 32,000 feet of marine and continental sediments deposited during periodic inundation by the Pacific Ocean and by erosion of the surrounding mountains, respectively. Sediments that comprise the shallow to intermediate depth water-bearing deposits in the groundwater subbasin are primarily continental deposits of Tertiary and Quaternary age. The Kings subbasin is bounded on the north by the San Joaquin River and to the south by the southern fork of the Kings River. Its groundwater aquifer system consists of unconsolidated Tertiary continental deposits overlain by a younger series of deposits of Quaternary age. Groundwater is found in the older alluvium in intercalated lenses of clay, silt, silty and sandy clay, clayey and silty sand, sand, gravel, cobbles, and boulders. According to the GeoCheck® section of the EDR report (Appendix A), there are 10 groundwater wells located within a one-quarter mile radius of the Site, and no wells at the Site. The nearest two groundwater wells are

	mapped approximately 50 feet to the west-southwest of the Site on an adjacent property. According to a groundwater monitoring report associated with a release of gasoline to the subsurface at the western adjacent property, groundwater beneath the site is likely encountered at depths of approximately 50 feet below ground surface (bgs) with a flow direction towards the south/southwest. One groundwater well was observed at the northwest corner of the Site.

2.3 ADJOINING AREA LAND USE

A drive-by survey of the area adjoining to the Site was performed by Haro Environmental personal on March 31, 2021. The results of this survey indicate Highland Avenue (Highway 43) to the west, residential land use to the north, a school to the east, and Nebraska Avenue to the south. Site and adjoining land uses are depicted on Plate 2.

2.4 LOCATION AND LEGAL DESCRIPTIONS

The Site is located on the north side of Nebraska Avenue, east of Highland Avenue (Highway 43), in an area of residential and retail land uses, and is identified by the County of Fresno Assessors office as APN 388-030-26.

2.5 USER PROVIDED INFORMATION

Mr. Jesse Allen Williams, Consultant Engineer with AW Engineering, was interviewed for actual knowledge pertaining to the Site to help identify the possibility of RECs in connection with the Site, and a copy of a user questionnaire completed by Mr. Williams is provided in Appendix B. The results of the interview are summarized below.

2.5.1 Title Records

Haro Environmental was not provided and therefore did not review a Preliminary Title Report for the Site.

2.5.2 Environmental Liens or Activity and Use Limitations

Mr. Williams is unaware of any information pertaining to environmental liens or activity and use limitations for the Site. Haro Environmental was not provided with a copy of an environmental lien records search for the Site.

2.5.3 Specialized Knowledge

Mr. Williams did not provide Haro Environmental with any information pertaining to specialized knowledge or experience regarding the Site with the exception of the former presence of one UST near the east corner of the Site.

2.5.4 Commonly Known or Reasonably Ascertainable Information

Mr. Williams did not provide Haro Environmental with and was not aware of any information pertaining to commonly known or reasonably ascertainable information about the Site.

2.5.5 Valuation Reduction for Environmental Issues

Mr. Williams was not aware of and did not provide Haro Environmental with any information pertaining to a valuation reduction for the Site relative to any known environmental issues.

2.5.6 Owner, Property Manager, and Occupant Information

Mr. Williams indicated that based on his knowledge and experience related to the property, there are no obvious indicators that point to the presence or likely presence of contamination at the Site.

2.5.7 Reason for Performing Phase I ESA

The purpose of this Phase I ESA was to assess the environmental conditions of the Site, taking into account commonly and reasonably ascertainable information.

2.5.8 Other

No other information pertinent to the condition of the Site was provided to Haro Environmental by Mr. Williams.

2.6 ENVIRONMENTAL LIENS

No environmental lien search was performed by the user or preparer of this Phase I ESA.

3.0 RECORDS REVIEW

Government agency database records are sources of information that may be helpful in evaluating activities that may have contributed to a release of hazardous substances or petroleum products to soil and/or groundwater. Haro Environmental contracted a government agency database search from EDR. A copy of the EDR report, which specifies the approximate minimum search distance for each public list as defined in the ASTM Standard, is included as Appendix A.

Properties that (1) were identified within the approximate minimum search distance from the Site as stated in the ASTM Standard; and (2) are listed in databases indicating a release or underground storage tank site, and which based on distance and topography could potentially impact the Site, are listed in Table 3-1, EDR Listing Summary of Selected Properties (see Appendix A for a complete listing of properties reported and acronyms used by EDR).

The subject Site was not listed in any of the databases searched by EDR. One adjacent facility was listed in multiple databases searched by EDR and is described in further detail below. Another nearby facility was listed in multiple databases searched by EDR but does not pose an environmental concern for the Site due to its proximity and downgradient position from the Site.

TABLE 3-1
EDR LISTING SUMMARY OF SELECTED PROPERTIES

Site Name	Site Address	Distance/Direction from Subject Site	Database Reference
Selma 76, Selma Quick Stop, Larrys Beacon, Beacon Station #480	11946 S Highland Avenue, 2004 S Highland Avenue	Adjacent property – West	UST, CERS TANKS, CUPA LISTINGS, CERS, LUST, SWEEPS UST, CORTESE, EDR HIST AUTO, HIST UST, EMI
Josan & Josan, Inc, Selma Arco AM/PM, Tokunaga Farm - downgradient and far away	12019 S Highland	400 feet Southwest	EDR HIST AUTO, CERS TANKS, CUPA LISTINGS, CERS, UST, SWEEPS UST, HIST UST, EMI

3.1 RESULTS OF DATABASE SEARCH

The following sections contain information on the results of the government records search conducted by EDR. Opinions presented below are based on information provided in EDR's report (unless otherwise noted) and on criteria such as distance from the Site, anticipated groundwater movement direction in the vicinity of the Site, and the nature of any reported unauthorized releases. In assessing the potential impact to buildings materials, soil, soil vapor, and/or groundwater beneath the Site, the shallowest groundwater was considered at a depth of approximately 50 feet bgs with an anticipated groundwater flow direction towards the south-southwest. This information is based on groundwater monitoring well logs from nearby groundwater monitoring wells (Snell, 2008).

3.1.1 Adjacent Properties

Results of the regulatory agency database search performed by EDR indicate that one property adjacent to the Site is listed in the databases searched.

Selma 76 / Selma Quick Stop / Larrys Beacon / Beacon Station #480 – 11946 S Highland Avenue

Selma 76 / Selma Quick Stop / Larrys Beacon / Beacon Station #480 property was listed in the UST, CERS TANKS, CUPA LISTINGS, CERS, LUST, SWEEPS UST, CORTESE, EDR HIST AUTO, HIST UST, and EMI databases searched by EDR. The LUST listing is identified as case #5T1000747 by the Central Valley Regional Water Quality Control Board (RWQCB) and as case #FA0000344 by Fresno County Environmental Health. The case was opened in April 2000; the potential contaminant of concern was gasoline affecting an aquifer used for drinking water supply. Remedial actions were taken in the form of soil vapor extraction (SVE) and the case was closed as of April 29, 2010. Information from the Selma 76 / Selma Quick Stop / Larrys Beacon / Beacon Station #480 property was obtained from the most current groundwater monitoring report prepared for this facility (Snell, 2008). The following is taken from the *First Quarter 2008 Groundwater Monitoring Report, Selma 76, 11946 South Highland Avenue, Selma California* dated March 6, 2008.

"The *First Quarter 2008 Groundwater Monitoring Report* (Report) summarizes the quarterly groundwater monitoring event performed on February 11, 2008 for Selma 76, 11946 South Highland Avenue, Selma, California (site). This Report presents data collected during the 13th monitoring event performed at the site since June 3, 2002. An Associated Soils Analysis, Inc. (Associated) field technician performed the purging and sampling procedures. The fieldwork was performed under the guidance of a California-registered professional geologist (PG). The Site is in the northeast corner of South Highland (Highway 43) and

Nebraska Avenues and encompasses an area of 0.795 acres. The Fresno County Assessor's Parcel Number is 388-030-11."

"Depth to groundwater ranged between approximately 52.92 and 54.89 feet below the top of the wellhead casings and averaged 53.52 feet. On average, the groundwater surface rose to 0.35 feet since June 7, 2007, the date of the previous quarterly monitoring event. The direction of groundwater flow on February 11, 2008 was approximately south 2 degrees west. The hydraulic gradient was approximately 0.002 feet per foot."

"No product sheening or petroleum odors were noted at any of the three monitoring wells during the purging and sampling procedures. No fuel hydrocarbons were detected in any of the samples collected."

Based on the case closed status and on the reported groundwater flow direction to the south-southwest away from the Site, this former release case is not expected to pose a significant environmental concern to the Site.

3.1.2 Nearby Properties

Results of the regulatory agency database search performed by EDR indicate that multiple properties are listed within the ASTM minimum search distance to the Site. However, based on either distance from the Site or on the nature of the listing (e.g., no releases reported), these nearby listed properties would not be expected to pose an environmental concern to the Site.

3.1.3 Orphan List

Sites not plotted by EDR due to poor or inadequate address information are referred to as orphan sites. The orphan summary/unmapped sites report was reviewed by Haro Environmental to assess the potential for off-site properties to affect the subject Site. Because they have incomplete addresses, orphan sites are not practically reviewable as defined by the ASTM standard. Three orphan/unmapped sites were identified by EDR. However, based upon distance from the Site and Haro Environmental's knowledge of the area, these properties are not expected to pose an environmental concern to subsurface soils, soil vapor, and/or groundwater beneath the Site.

3.1.4 Non-ASTM Issues

Assessment of non-ASTM issues including but not limited to asbestos containing materials, radon gas, lead-based paint, lead in drinking water, mold, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, electromagnetic fields, or geologic hazards were not included as part of this Phase I ESA.

3.2 OTHER RECORDS REVIEWED

The following additional sources of information were reviewed as part of this Phase I ESA.

3.2.1 Public Agency Records

The following public agencies were contacted regarding permit or environmental files for the Site and indicated they do not maintain any permit or environmental files for the Site:

- City of Selma
- City of Selma Fire Department
- Central Valley Regional Water Quality Control Board (GeoTracker)
- Fresno County Public Health Department, Environmental Health Division
- San Joaquin Valley Air Pollution Control District
- California Department of Toxic Substances Control (DTSC; Envirostor website)

3.2.2 Previous Environmental Reports

No previous environmental reports were provided for review as part of this Phase I ESA.

4.0 SITE HISTORY

The history of the site was researched to identify obvious uses of the site back to the first developed use, or at least 40 years ago, whichever is earlier or readily available. Several data gaps since 1940 of greater than 5 years were identified in the historical records reviewed and include the years from 1940 to 1946, 1950 to 1957, 1967 to 1973, 1973 to 1979, 1987 to 1998, and 1998 to 2006. These data gaps are considered insignificant because the site use appears to be similar during these periods.

4.1 AERIAL PHOTOGRAPHS

A review of historical aerial photography may indicate past activities at a property that may not be documented by other means or observed during a site visit. The effectiveness of this technique depends on the scale and quality of the photographs and the available coverage. Aerial photographs were obtained from several historical photograph collections through EDR. A tabulation of the aerial photographs reviewed is presented in Table 4-1.

TABLE 4-1
HISTORICAL AERIAL PHOTOGRAPHS REVIEWED

Date	Approximate Scale	Source
1937	1” = 500’	USDA
1946	1” = 500’	USGS
1950	1” = 500’	USDA
1957	1” = 500’	USDA
1962	1” = 500’	USGS
1967	1” = 500’	USDA
1973	1” = 500’	USDA
1979	1” = 500’	USDA
1984	1” = 500’	USDA
1987	1” = 500’	USDA
1998	1” = 500’	USGS/DOQQ
2006	1” = 500’	USDA/NAIP
2009	1” = 500’	USDA/NAIP
2012	1” = 500’	USDA/NAIP
2016	1” = 500’	USDA/NAIP

Note: Aerial photographs only provide information on indications of land use and no conclusions regarding the release of hazardous substances or petroleum products can be drawn from the review of photographs alone.

Copies of the reviewed aerial photographs are included in Appendix A. The following is a summary of our review of these photographs.

- ***1937*** – The Site appears as a rectangular parcel of land bordered by present-day Nebraska Avenue to the south and present-day South Highland Avenue to the West. The Site and surrounding properties appear to be in agricultural usage and planted with row crops. A dirt road runs along the southern half of the western site border and extends to the northern Site border, cutting through the Site. Properties adjacent to the southeastern and southwestern corners of the Site, as well as a property across present-day Nebraska Avenue, appear to be in rural residential usage.

- ***1946 and 1950*** – The Site and surrounding properties appear similar to the 1937 aerial photograph.

- ***1957*** – The Site and surrounding properties appear similar to the 1950 aerial photograph, with the exception that the property adjacent to the eastern Site border has been cleared of crops and three buildings appear in the northeastern property quadrant.

- ***1962*** – The Site appears similar to the 1957 photograph. Trees have been planted around the perimeter of the eastern adjacent property and another building appears in the northeastern portion of the property.

- ***1967, 1973, and 1979*** – The Site and surrounding properties appear similar to the 1962 aerial photograph.

- ***1984 –*** The Site and surrounding properties appear similar to the 1979 aerial photograph with the exception that portions of the adjacent property to the west have been paved and further developed.

- ***1987 –*** The Site and surrounding properties appear similar to the 1984 aerial photograph.

- ***1998*** – The Site and surrounding properties appear similar to the 1984 aerial photograph. South Highland Avenue has been expanded to a four-lane highway.

- ***2006*** – The Site appears similar to the 1998 aerial photograph. The property adjacent to the northern Site border has been converted from agricultural usage to residential usage. Present-day Fig Street appears paved along the northern Site border.

- ***2009*** – A dirt road appears around the perimeter of the Site. Two dirt roads running from East to West bisect the Site in the center. The Site appears to be bare of crops at this time. Surrounding properties appear similar to the 2006 aerial photograph. Multiple additional buildings appear in the northeastern corner of the eastern adjacent property.

- ***2012*** – The Site appears to be planted with an unidentified crop. The dirt roads visible in the 2009 aerial photograph have disappeared. Surrounding properties appear similar to the 2009 aerial photograph.

- ***2016*** – The Site and surrounding properties appear similar to the 2012 aerial photograph. Multiple additional structures and buildings appear on the eastern adjacent property.

4.2 HISTORICAL TOPOGRAPHIC MAPS

Haro Environmental contacted EDR for information regarding historical topographic maps of the Site vicinity. The topographic maps reviewed for this assessment are listed below in Table 4-2. Copies of the maps are included in Appendix A.

TABLE 4-2
HISTORICAL TOPOGRAPHIC MAPS REVIEWED

Year	Quadrangle	Series	Scale
1924	Selma	7.5-minute	1:31,680
1946	Selma	7.5-minute	1:24,000
1947	Selma	7.5-minute	1:24,000
1948	Selma	7.5-minute	1:25,000
1964 (aerial photo revised 1962)	Selma	7.5-minute	1:24,000
1981 (aerial photo revised 1978)	Selma	7.5-minute	1:24,000
2012	Selma	7.5-minute	1:24,000
2015	Selma	7.5-minute	1:24,000
2018	Selma	7.5-minute	1:24,000

The Site is located east of Highland Avenue (Highway 43) and north of Nebraska Avenue at an elevation of approximately 310 feet above MSL. The nearest surface water body is Dudley Pond, mapped approximately 1,850 feet southwest of the Site. The following is a summary of our review of the maps.

- ***1924 –*** The Site is undeveloped, and is bordered to the south by present-day Nebraska Avenue and to the west by present-day South Highland Avenue. Surrounding areas also appear undeveloped. A

structure is depicted on the adjacent eastern property, on a property across Nebraska Avenue, and on a property across South Highland Avenue.

- ***1946*** – The Site is unmapped.

- ***1947 –*** The Site and surrounding areas are depicted similar to the 1924 topographic maps. Nebraska Avenue is now depicted as a secondary highway.

- ***1948*** – The Site and surrounding properties are depicted similar to the 1947 topographic map.

- ***1963*** – The Site is depicted similar to the 1948 topographic map. Three rectangular buildings are depicted in the northeast corner of the eastern adjacent property, one of which is a school. South Highland Avenue is now depicted as a secondary highway. Surrounding areas are now depicted in agricultural land use.

- ***1978*** – The Site and surrounding properties to the north, south, and west are now depicted as vineyards.

- ***2012*** – The map is simplified and no longer depicts land usage or individual structures. The Site is now bordered by present-day Fig Street in the north and by an unnamed road in the east. South Highland Avenue is identified as Highway 43.

- ***2015 and 2018 –*** The Site and surrounding properties are depicted similar to the 2012 topographic maps, with the exception that the unnamed road along the eastern Site border is no longer depicted. The school on the eastern adjacent property is depicted once again.

4.3 SANBORN® FIRE INSURANCE MAPS

Sanborn® Fire Insurance Maps provide historical land use information in some metropolitan areas and small, established towns. There is no coverage of the Site and a copy of the no coverage letter from EDR is provided in Appendix A.

4.4 CITY DIRECTORIES

Haro Environmental contacted EDR to obtain a historical City Directory Abstract, which lists the names and/or businesses that historically occupied an address. The Site address of 2850 Nebraska was not listed in any of the directories.

City directories listings of adjacent properties were also reviewed. Based on distance from the Site or the nature of the listings, these nearby listed properties are not expected to pose an environmental concern to the Site. The complete EDR City Directory Abstract listing results are provided in Appendix A.

4.5 OIL AND GAS MAPS

Maps provided online by the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources were reviewed to determine the current or historic presence of oil or gas wells in the vicinity of the Site (DOGGR, 2021). No wells were found within one mile of the Site.

4.6 CRUDE OIL PIPELINES

The National Pipeline Mapping System maintained by the Pipeline and Hazardous Materials Safety Administration was reviewed for the presence of gas and hazardous liquid transmission pipelines. There are no mapped pipelines within ½ mile radius of the Site.

4.7 CHAIN OF TITLE RECORDS

A 50-year chain of title report for the Site was not provided, and therefore not reviewed.

5.0 SITE RECONNAISSANCE AND INTERVIEWS

Haro Environmental's assessment activities included a site reconnaissance. This section summarizes the findings from the site reconnaissance.

5.1 SITE RECONNAISSANCE

5.1.1 Methodology and Limiting Conditions

Mr. Elliot Haro of Haro Environmental performed an unaccompanied reconnaissance of the Site on March 31, 2022. The site reconnaissance was conducted by: 1) observing the Site from public thoroughfares, 2) observing the adjoining properties from public thoroughfares, and 3) observing the Site from walking paths. The purpose of the site reconnaissance was to identify the presence or likely presence of hazardous substances or petroleum products under conditions that indicate an existing release, a past release, or threat of release into soil, groundwater, or surface water at the Site (recognized environmental conditions). Observations from the site reconnaissance are summarized in the following sections. A photolog of photographs taken during the site reconnaissance is included as Appendix C.

5.1.2 Current Use of the Property and Adjoining Properties

The Site is currently vacant, undeveloped land.

The Site does not appear to be currently services by any utilities.

Highland Avenue (Highway 43) is present to the west, Nebraska Avenue to the south, a school to the east, and residential land use to the north. Nearby land uses are depicted on Plate 2.

5.1.3 General Description of Structures

The Site is vacant, undeveloped land. An irrigation ditch is located near the southwestern portion of the Site.

5.1.4 Interior and Exterior Observations

The Site is bare soil.

5.1.5 Hazardous Substances and Petroleum Products

No hazardous substances or petroleum products were observed at the Site during the site reconnaissance.

5.1.6 Unidentified Substance Containers

Unidentified hazardous substance containers or unidentified containers that might contain hazardous substances were not observed at the Site.

5.1.7 Storage Tanks

During the site reconnaissance, Haro Environmental did not observe evidence of USTs or above-ground storage tanks (ASTs) at or adjacent to the Site.

5.1.8 Odors

During the site reconnaissance, Haro Environmental did not identify any strong, pungent, or noxious odors.

5.1.9 Pools of Liquid

During the site reconnaissance, Haro Environmental did not identify any pools of liquid including standing surface water. In addition, sumps containing liquids likely to be hazardous substances or petroleum products were not observed.

5.1.10 Drums

During the site reconnaissance, Haro Environmental did not observe evidence of drums onsite.

5.1.11 Indications of Polychlorinated Biphenyls (PCBs)

During the site reconnaissance, Haro Environmental did not observe evidence of PCBs onsite. Two pole-mounted transformers were observed at the Site (refer to Plate 2 for locations). However, the transformers did not appear to be leaking, and no evidence of past leaks from the transformers (e.g., soil staining or pole staining) was observed.

5.1.12 Other Conditions of Concern

During the site reconnaissance Haro Environmental did not note any of the following:

- Corrosion
- Clarifiers, and/or sumps
- Pits, ponds, and/or lagoons
- Stressed vegetation
- Waste water
- Floor drain
- Solid waste
- Septic tanks
- Fill dirt

One onsite groundwater well was observed near the northwest corner of the Site (see Plate 2 for location).

5.2 INTERVIEWS

Mr. Williams, consultant to the current property owner, was interviewed as part of this Phase I ESA to inquire about the current and historic uses of the Site, and a copy of an environmental questionnaire completed by Mr. Williams is provided in Appendix B.

Mr. Williams indicated that he is unaware of the on-site current or historic presence of:

- Industrial or automotive batteries,
- Pesticides,
- Fill dirt,
- Pits, ponds, or lagoons,

- Stained soil,
- Underground-ground or above-ground storage tanks,
- Vent pipes, fill pipes, or access ways,
- Monitoring wells,
- PCBs.

Mr. Williams also indicated that he is unaware of any environmental liens, environmental deed restrictions, land use regulations, engineering controls, environmental violations, environmental assessments, or past, threatened, or pending lawsuits concerning releases of hazardous materials relating to the Site.

6.0 FINDINGS AND CONCLUSIONS

This Phase I ESA of the property located at 2850 Nebraska Avenue in Selma, California was performed by Haro Environmental for Oliveira Environmental Consulting, LLC. Haro Environmental performed this Phase I ESA consistent with ASTM Practice E-1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM Standard). Exceptions to, or deletions from, this practice are described in this report.

Based on the data gathered and reviewed during this Phase I ESA, Haro Environmental did not identify recognized environmental conditions or concerns that have impacted, or pose a significant environmental threat to subsurface soil, soil vapor, or groundwater beneath the Site.

Based on the data gathered and reviewed during this Phase I ESA, Haro Environmental identified the following potential environmental concerns to note.

- Historic use of the Site for agriculture. Agricultural farming practices often include the application of chemicals to control pests and weeds. Although no evidence of agricultural chemical usage at the Site was found during preparation of this Phase I ESA, because agricultural land use appears in historic aerial photographs beginning in at least 1937 and continuing through at least 1998, there is a potential residual concentrations of agricultural chemicals could persist in soils at the Site. As such, the property owner may want to consider collecting shallow soil samples from the Site and testing them for chlorinated pesticides and arsenic consistent with applicable regulatory guidance.

- Vicinity to a major arterial highways. The Site is bordered to the west by Highland Avneue (Highway 43) and to the south by Nebraska Avenue. Both roads have been shown as major highways on historic maps. Based on the historical use of leaded gasoline prior to 1987, there is a potential for elevated concentrations of lead to be present in shallow soils along roads and highways constructed prior to this date [identified as aerially-deposited lead (ADL)]. ADL concentrations in soils near highways are often attributed to emissions from vehicles powered by internal-combustion engines which previously used leaded gasoline. Based on the location of the Site to nearby highways, ADL concentrations may be present in shallow soils near the western and southern property boundaries.

7.0 STANDARD OF CARE

The findings and conclusions contained in this Phase I ESA are based upon professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted industry standards and practices applicable to this location and are subject to the following inherent limitations:

Accuracy of Information. Certain information utilized by Haro Environmental in this assessment has been obtained, reviewed, and evaluated from various sources believed to be reliable. Although Haro Environmental's conclusions, opinions, and recommendations are based, in part, on such information, Haro Environmental's services did not include the verification of the information's accuracy or authenticity. Should such information prove to be inaccurate or unreliable, Haro Environmental reserves the right to amend or revise its conclusions, opinions and/or recommendations.

Reconnaissance. Haro Environmental performed a reconnaissance of the Site that is the subject of this assessment to document current conditions. Haro Environmental focused on areas deemed more likely to exhibit hazardous materials conditions while other areas received limited attention. No known areas were inaccessible at the time of our reconnaissance.

Limitations. Haro Environmental does not guarantee that the Site is free of hazardous or potentially hazardous materials or conditions, or that latent or undiscovered conditions will not become evident in the future. This assessment has been prepared in accordance with currently accepted industry standards, and no other warranties, representations, or certifications are made. Unless stated otherwise herein, this report is intended for and restricted to the sole use of Oliveira Environmental Consulting, LLC. Any other use, interpretation, or reliance upon this assessment is at the sole risk of the user and Haro Environmental shall have no liability for such unauthorized use, interpretation or reliance.

Qualifications of Environmental Professionals. Mr. Elliot Haro representing Haro Environmental performed this ESA. Mr. Haro is an environmental consultant who has performed over 100 ESAs for a variety of clients. Mr Haro's resume is provided in Appendix D.

Reliance. This ESA report has been prepared for the exclusive use and reliance of Oliveira Environmental Consulting, LLC. Use or reliance by any other party is prohibited without the written authorization of Oliveira Environmental Consulting, LLC and Haro Environmental.

Scope Limitations and ASTM Exceptions. This ESA did not include any inquiries with respect to non-scope ASTM considerations (including but not limited to asbestos containing materials, radon gas, lead-based paint, lead in drinking water, mold, wetlands, regulatory compliance, cultural and historic resources,

industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality or electromagnetic fields), subsurface or other invasive assessments, business environmental risk evaluations or other services not particularly identified and discussed herein.

Reasonable attempts were made to obtain information within the scope and time constraints set forth by the client; however, in some instances, information requested may not be received by the issuance date of the report. In the event information obtained from sources mentioned previously alters the findings stated in this report, an addendum letter will be forwarded to Oliveira Environmental Consulting, LLC under separate cover providing Haro Environmental's findings and conclusions. Additional Phase I ESA limitations include:

- Several data gaps since 1940 of greater than 5 years were identified in the historical records reviewed and include the years from 1940 to 1946, 1950 to 1957, 1967 to 1973, 1973 to 1979, 1987 to 1998, and 1998 to 2006. These data gaps are considered insignificant because the site use appears to be similar during these periods.

- An environmental lien search was not performed by the user or preparer of this Phase I ESA. This data gap is considered insignificant because the Site history is well documented through other sources of information.

- No owner interview was performed. This data gap is considered insignificant because the Site history is well documented through other sources of information.

This report represents our service to you as of the report date and constitutes our final document; its text may not be altered after final issuance. Findings in this report are based upon the Site's current utilization, information derived from the most recent reconnaissance and from other activities described herein; such information is subject to change. Certain indicators of the presence of hazardous substances or petroleum products may have been latent, inaccessible, unobservable or not present during the reconnaissance and may subsequently become observable (such as after site renovation or development). Further, these services are not to be construed as legal interpretation or advice.

Certification. I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of 40 CFR Part 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

8.0 REFERENCES

Burnett, John L., Matthews, Robert A., and California Department of Conservation, California Geological Survey (CGS). 1964. *Geologic Map of California - Fresno Sheet.*

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EDR. March 15, 2022. The EDR Radius Map with GeoCheck®, 2850 Nebraska Avenue, Selma, CA 93662.

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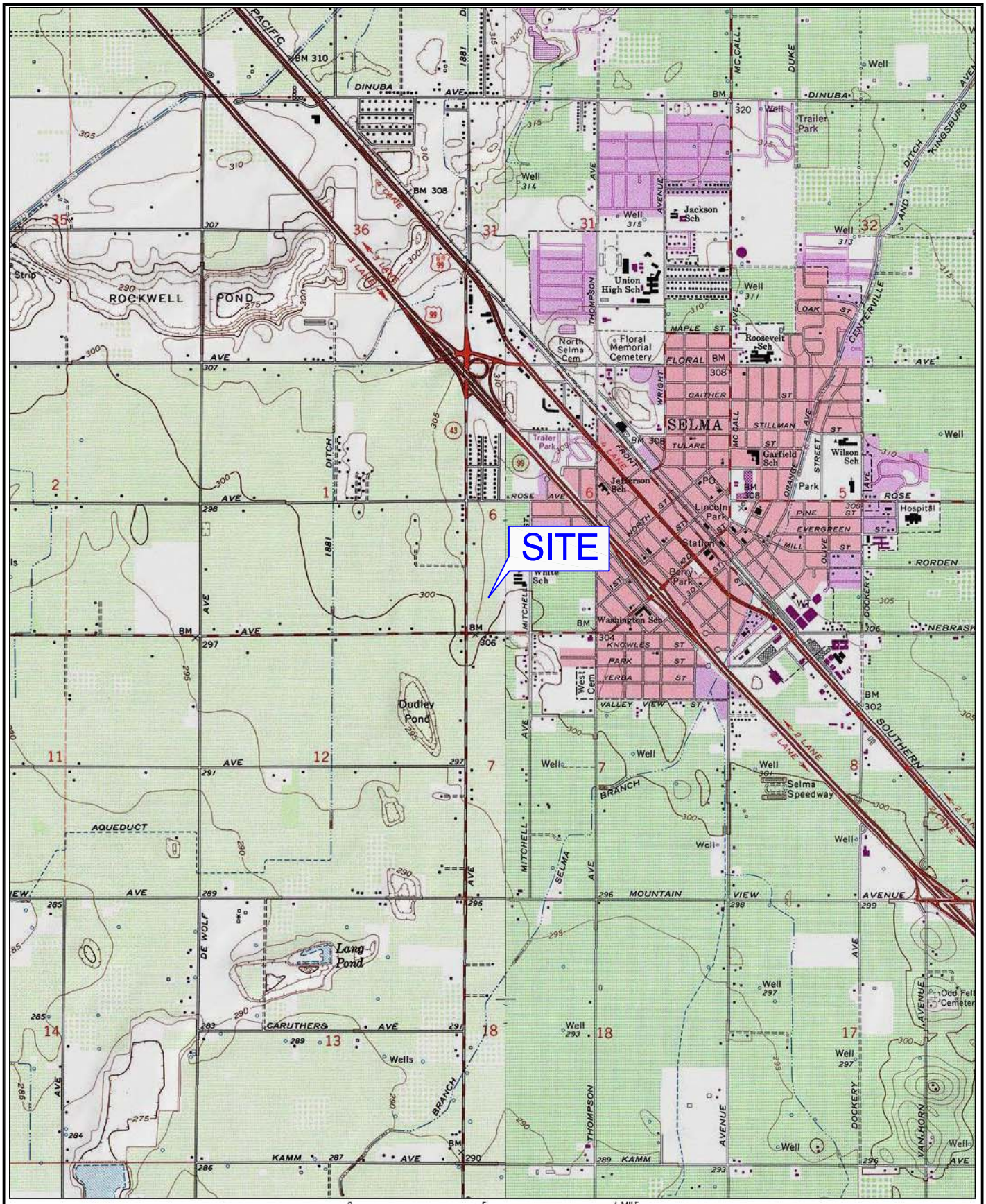
EDR. March 15, 2022. The EDR Sanborn® Map Report, 2850 Nebraska Avenue, Selma, CA 93662.

Pipeline and Hazardous Materials Safety Administration (PHMSA). 2021. National Pipeline Mapping System website: https://www.npms.phmsa.dot.gov/PublicViewer/

Snell, J. 2008. *First Quarter 2008 Groundwater Monitoring Report.* Associated Soils Analysis, Inc. March 6, 2008

PLATES



Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

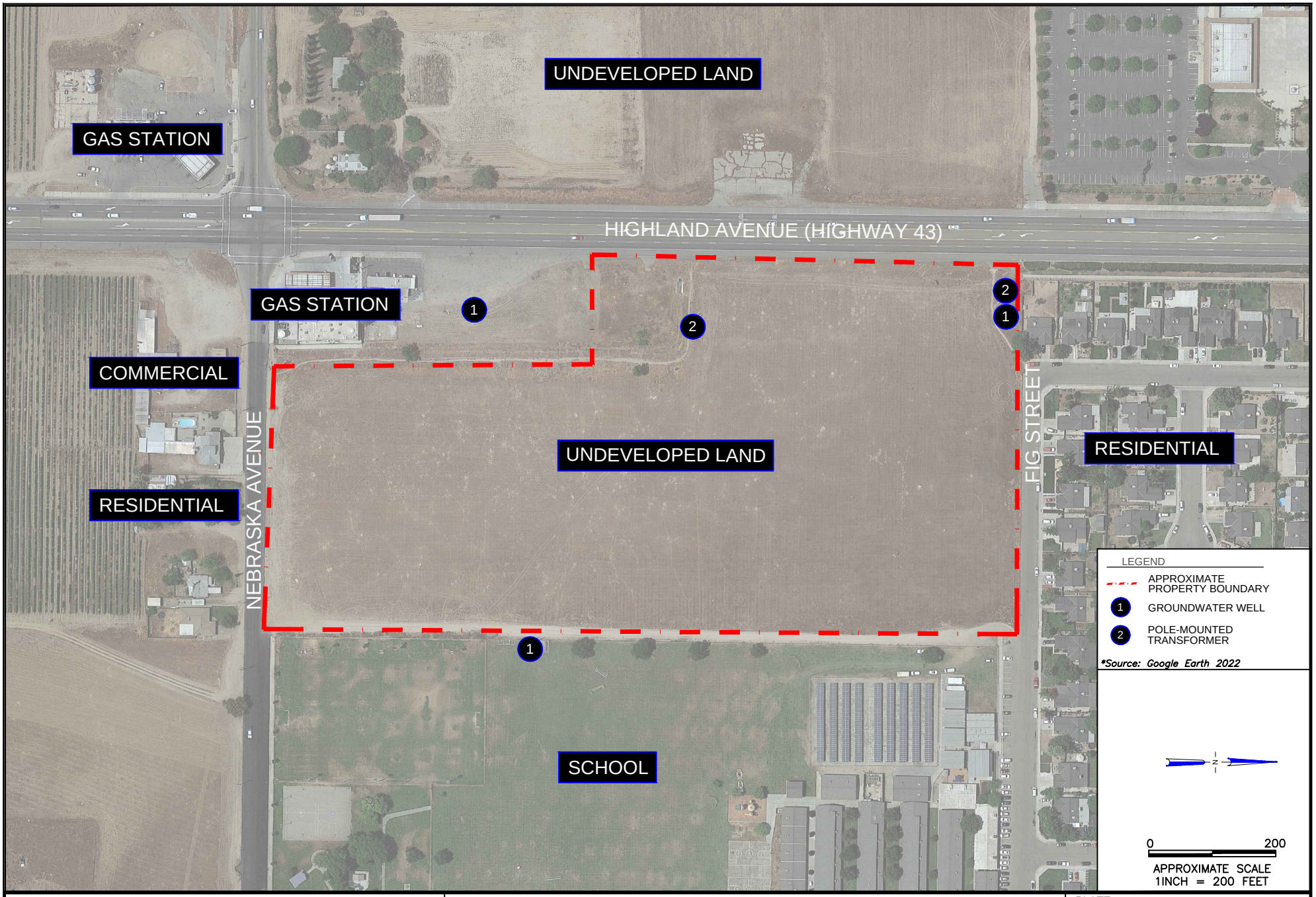
HARO ENVIRONMENTAL
872 Higuera Street
San Luis Obispo, CA 93401
Phone: 805 204 4483
Fax: 805 831 6081

FILE NAME: *SITE VICINITY MAP.DWG*

SITE VICINITY MAP

2850 Nebraska Avenue
Selma, California

PLATE: 1
SHEET: of
REVISION NO: 0
DATE: 05/22



HARO ENVIRONMENTAL
872 Higuera Street
San Luis Obispo, California 93401
Phone: 805.204.4483
Fax: 805.832.6081

SALU MAP.dwg

SITE AND ADJACENT LAND USE MAP

2850 Nebraska Avenue
Selma, California

PLATE: 2

REVISION NO:

DATE: 05/22

APPENDIX A

REGULATORY RECORDS DOCUMENTATION

2850 Nebraska

2850 Nebraska

Selma, CA 93662

Inquiry Number: 6898923.3

March 15, 2022

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

03/15/22

Site Name:	Client Name:
2850 Nebraska	Haro Environmental, Inc.
2850 Nebraska	PO Box 7002
Selma, CA 93662	Los Osos, CA 93412
EDR Inquiry # 6898923.3	Contact: Elliot Haro

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The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # EADD-4992-BB0C

PO # NA

Project NA

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: EADD-4992-BB0C

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

The Sanborn Library LLC Since 1866™

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2850 Nebraska

2850 Nebraska

Selma, CA 93662

Inquiry Number: 6898923.4

March 15, 2022

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

03/15/22

Site Name:	Client Name:
2850 Nebraska	Haro Environmental, Inc.
2850 Nebraska	PO Box 7002
Selma, CA 93662	Los Osos, CA 93412
EDR Inquiry # 6898923.4	Contact: Elliot Haro

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Haro Environmental, Inc. were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# NA

Project: NA

Coordinates:

Latitude:	36.56363 36° 33' 49" North
Longitude:	-119.62737 -119° 37' 39" West
UTM Zone:	Zone 11 North
UTM X Meters:	264873.72
UTM Y Meters:	4049679.01
Elevation:	307.00' above sea level

Maps Provided:

2018
2015
2012
1978, 1981
1963, 1964
1948
1947
1946
1924

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2018 Source Sheets

Conejo
2018
7.5-minute, 24000

Selma
2018
7.5-minute, 24000

2015 Source Sheets

Conejo
2015
7.5-minute, 24000

Selma
2015
7.5-minute, 24000

2012 Source Sheets

Conejo
2012
7.5-minute, 24000

Selma
2012
7.5-minute, 24000

1978, 1981 Source Sheets

Conejo
1978
7.5-minute, 24000
Aerial Photo Revised 1962

Selma
1981
7.5-minute, 24000
Aerial Photo Revised 1978

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

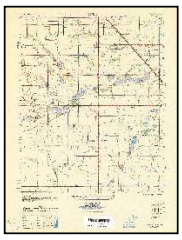
1963, 1964 Source Sheets

Conejo
1963
7.5-minute, 24000
Aerial Photo Revised 1962

Selma
1964
7.5-minute, 24000
Aerial Photo Revised 1962

1948 Source Sheets

SELMA
1948
7.5-minute, 25000



CONEJO
1948
7.5-minute, 25000

1947 Source Sheets

Selma
1947
7.5-minute, 24000

Conejo
1947
7.5-minute, 24000

1946 Source Sheets

Selma
1946
7.5-minute, 24000

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

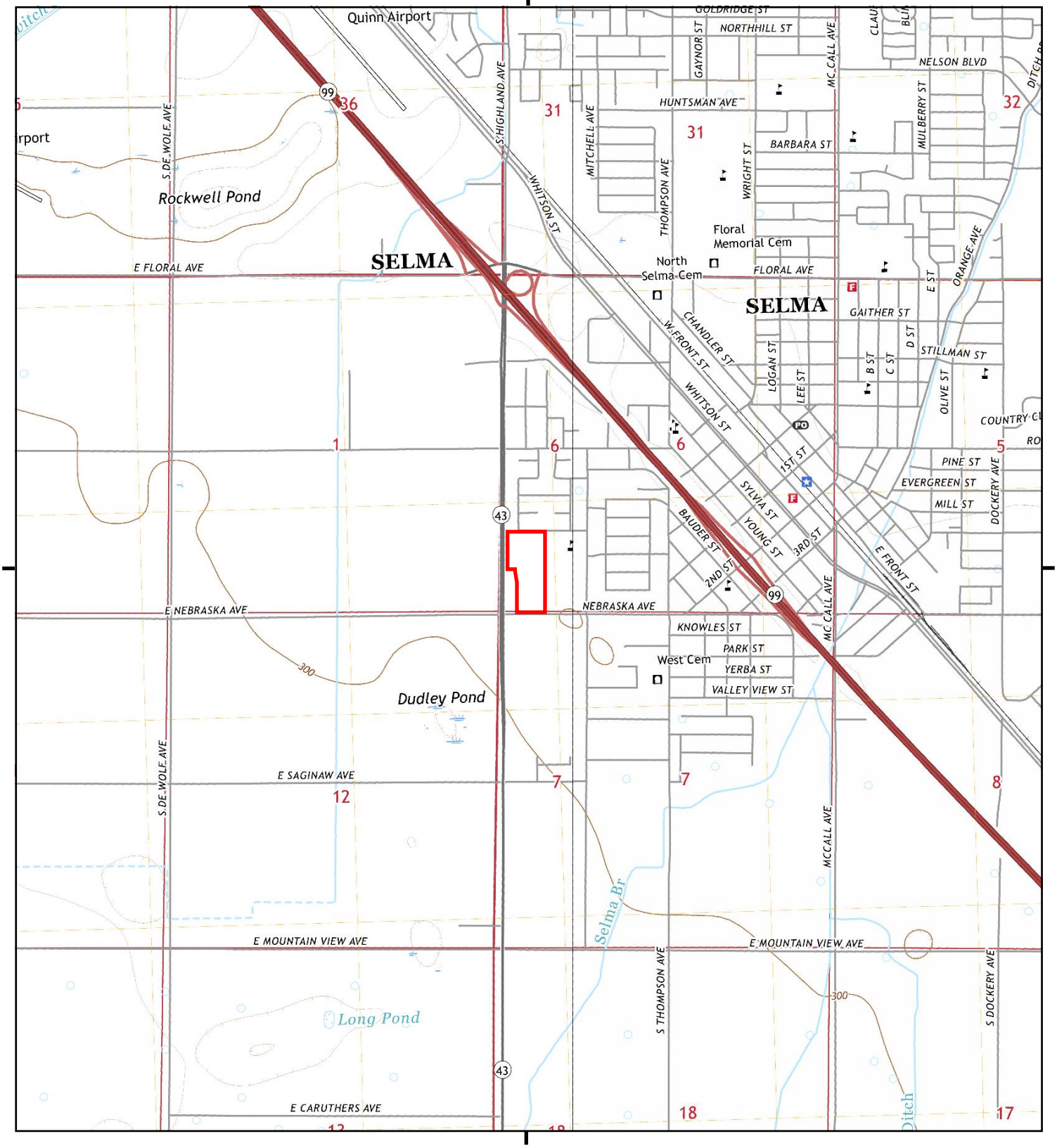
1924 Source Sheets

Conejo
1924
7.5-minute, 31680

Selma
1924
7.5-minute, 31680

Historical Topo Map

2018



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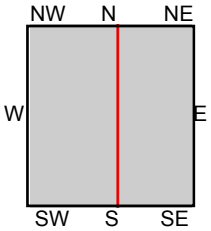


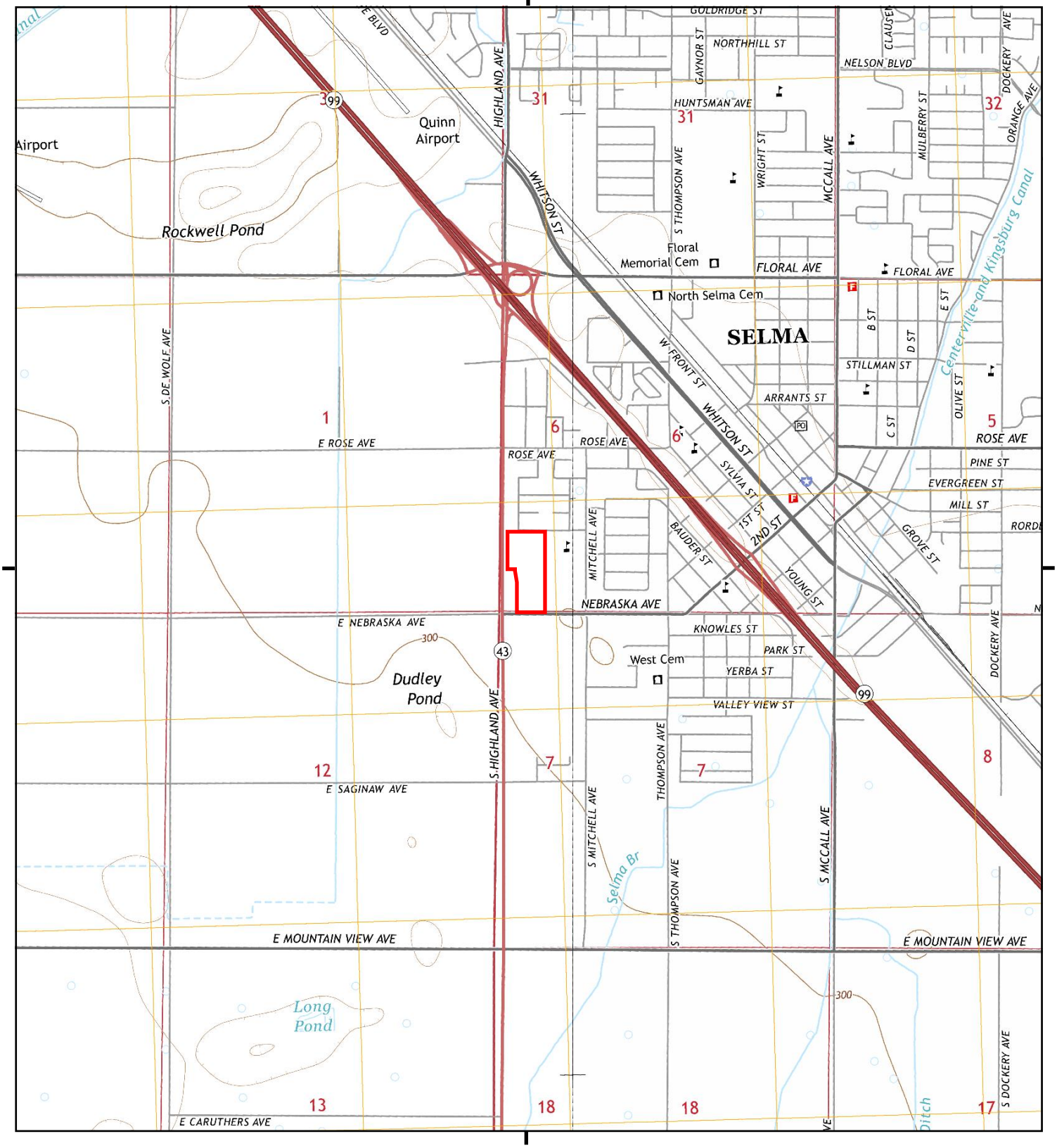
TP, Conejo, 2018, 7.5-minute
E, Selma, 2018, 7.5-minute

SITE NAME: 2850 Nebraska
ADDRESS: 2850 Nebraska
Selma, CA 93662
CLIENT: Haro Environmental, Inc.

N

Historical Topo Map

2015



This report includes information from the following map sheet(s).

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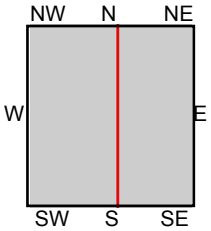


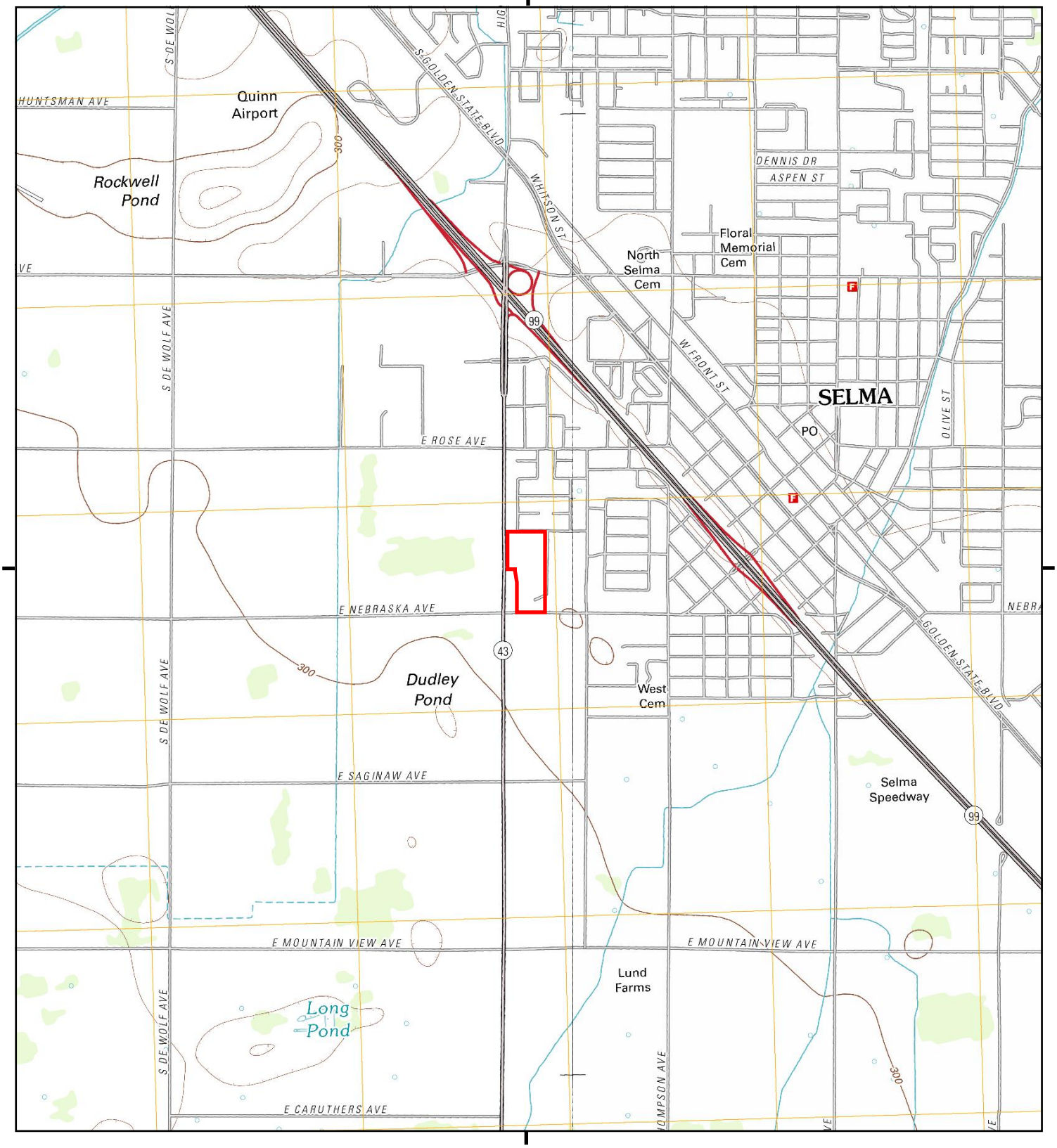
TP, Conejo, 2015, 7.5-minute
E, Selma, 2015, 7.5-minute

SITE NAME: 2850 Nebraska
ADDRESS: 2850 Nebraska
Selma, CA 93662
CLIENT: Haro Environmental, Inc.

N

Historical Topo Map

2012



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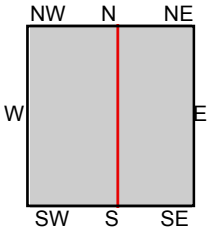
0 Miles 0.25 0.5 1 1.5



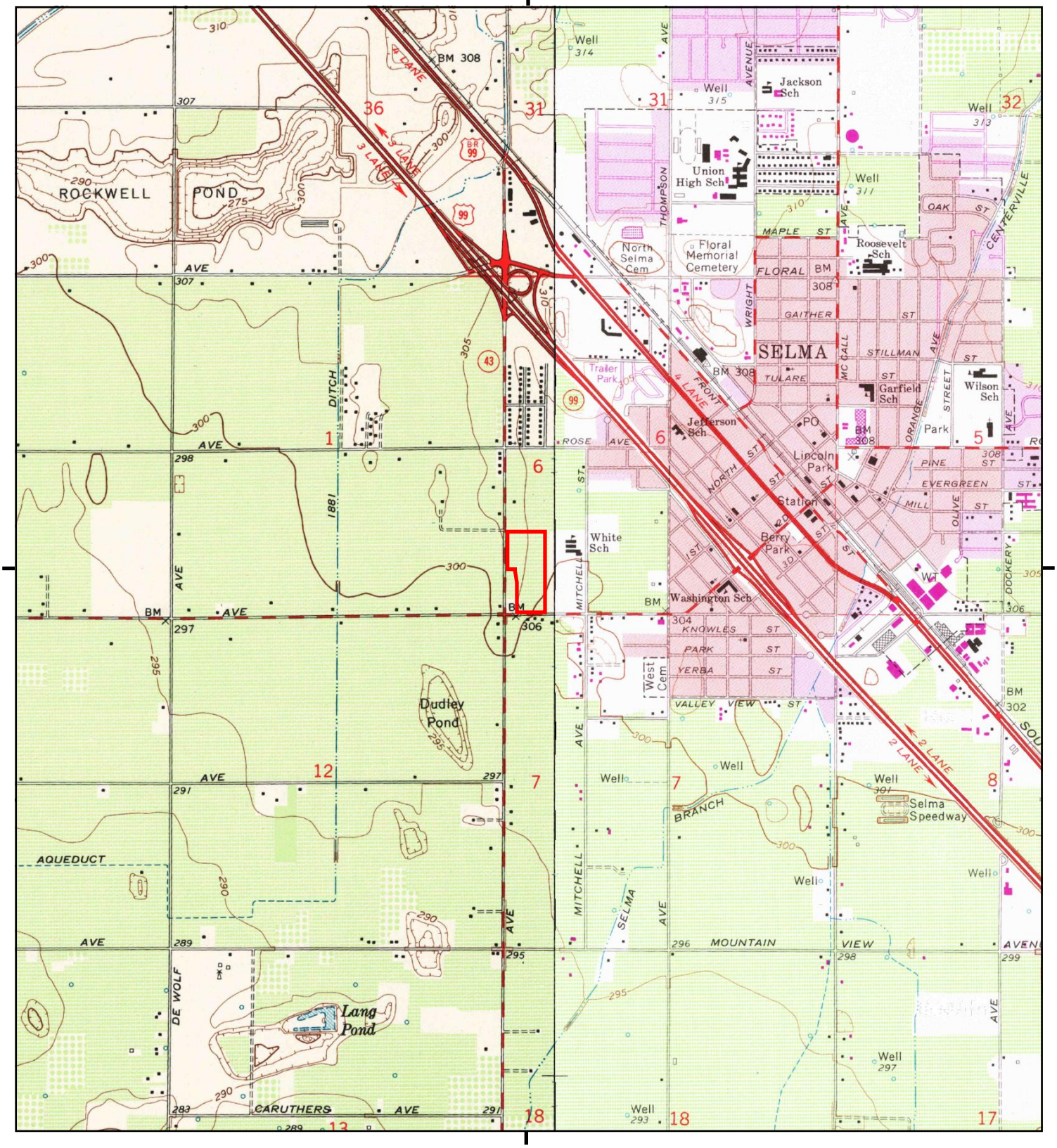
TP, Conejo, 2012, 7.5-minute
E, Selma, 2012, 7.5-minute

SITE NAME: 2850 Nebraska
ADDRESS: 2850 Nebraska
Selma, CA 93662
CLIENT: Haro Environmental, Inc.

N

Historical Topo Map

1978, 1981



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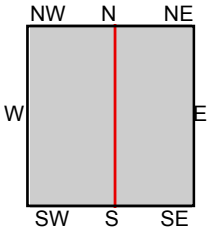
0 Miles 0.25 0.5 1 1.5



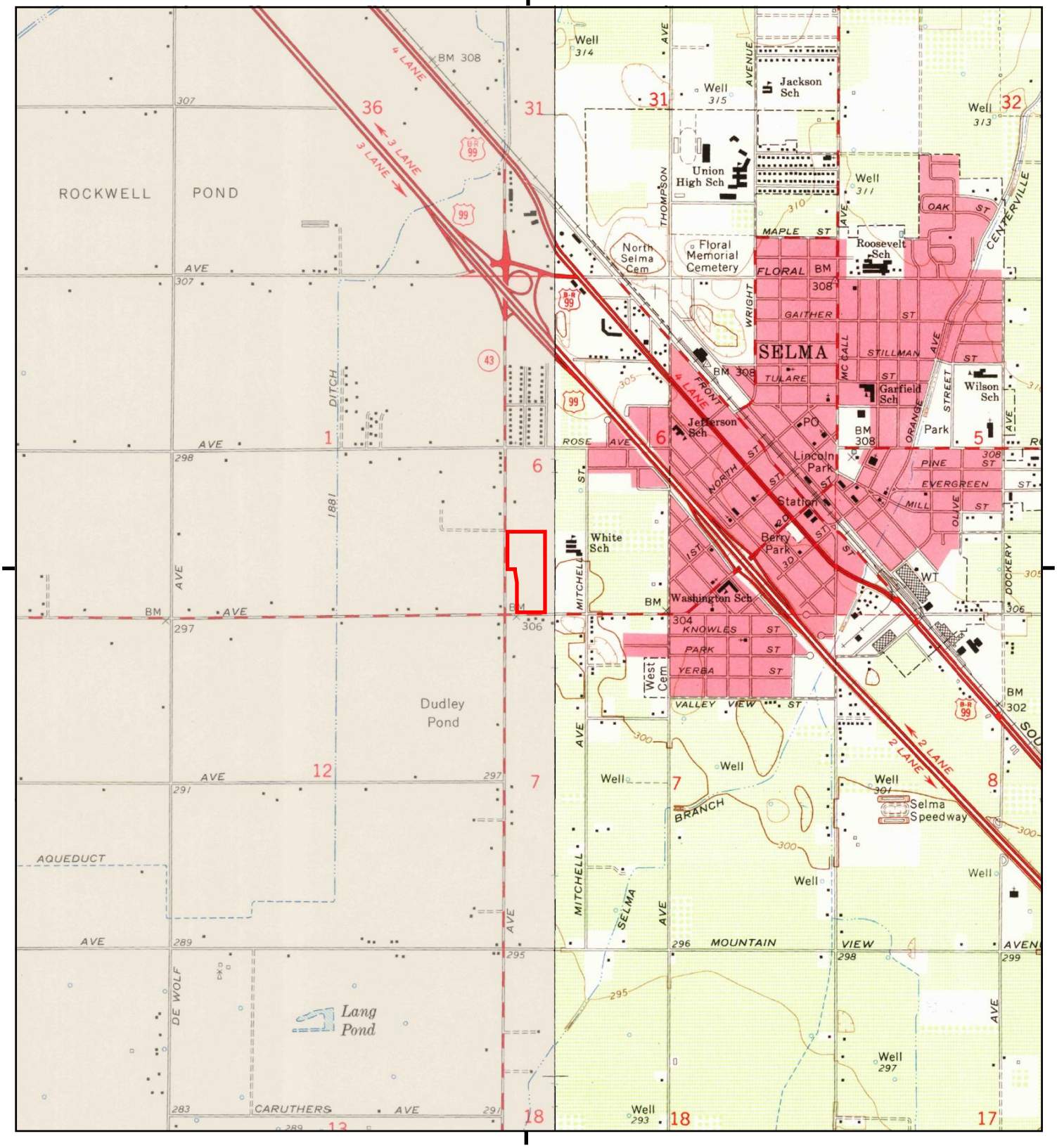
TP, Conejo, 1978, 7.5-minute
E, Selma, 1981, 7.5-minute

SITE NAME: 2850 Nebraska
ADDRESS: 2850 Nebraska
Selma, CA 93662
CLIENT: Haro Environmental, Inc.

N

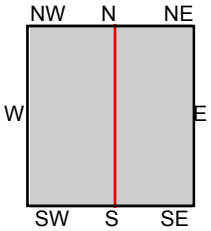
Historical Topo Map

1963, 1964



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



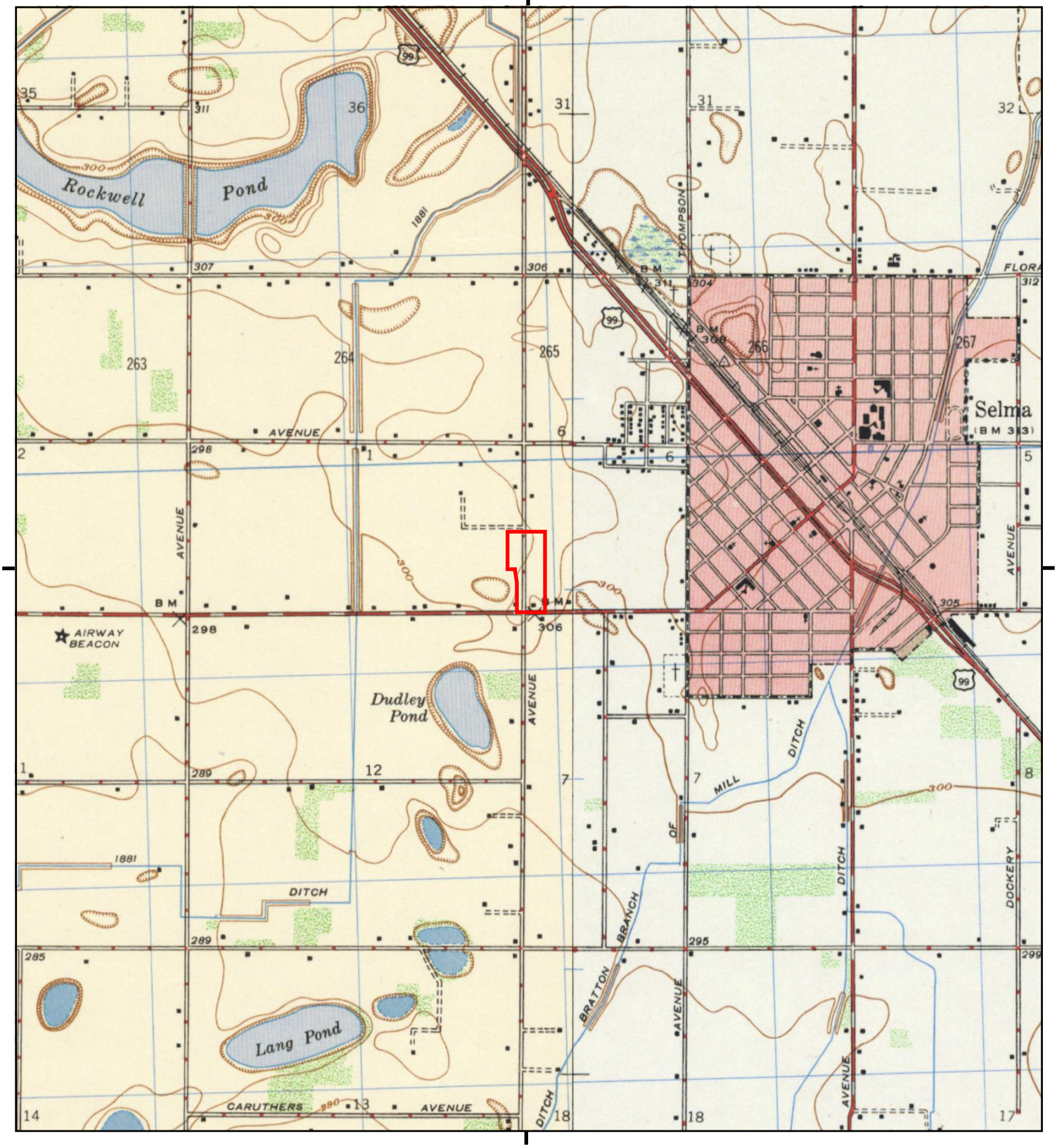
TP, Conejo, 1963, 7.5-minute
E, Selma, 1964, 7.5-minute

SITE NAME: 2850 Nebraska
ADDRESS: 2850 Nebraska
Selma, CA 93662
CLIENT: Haro Environmental, Inc.

N

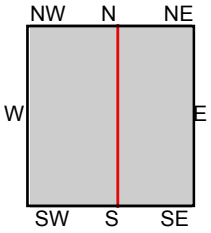
Historical Topo Map

1948



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



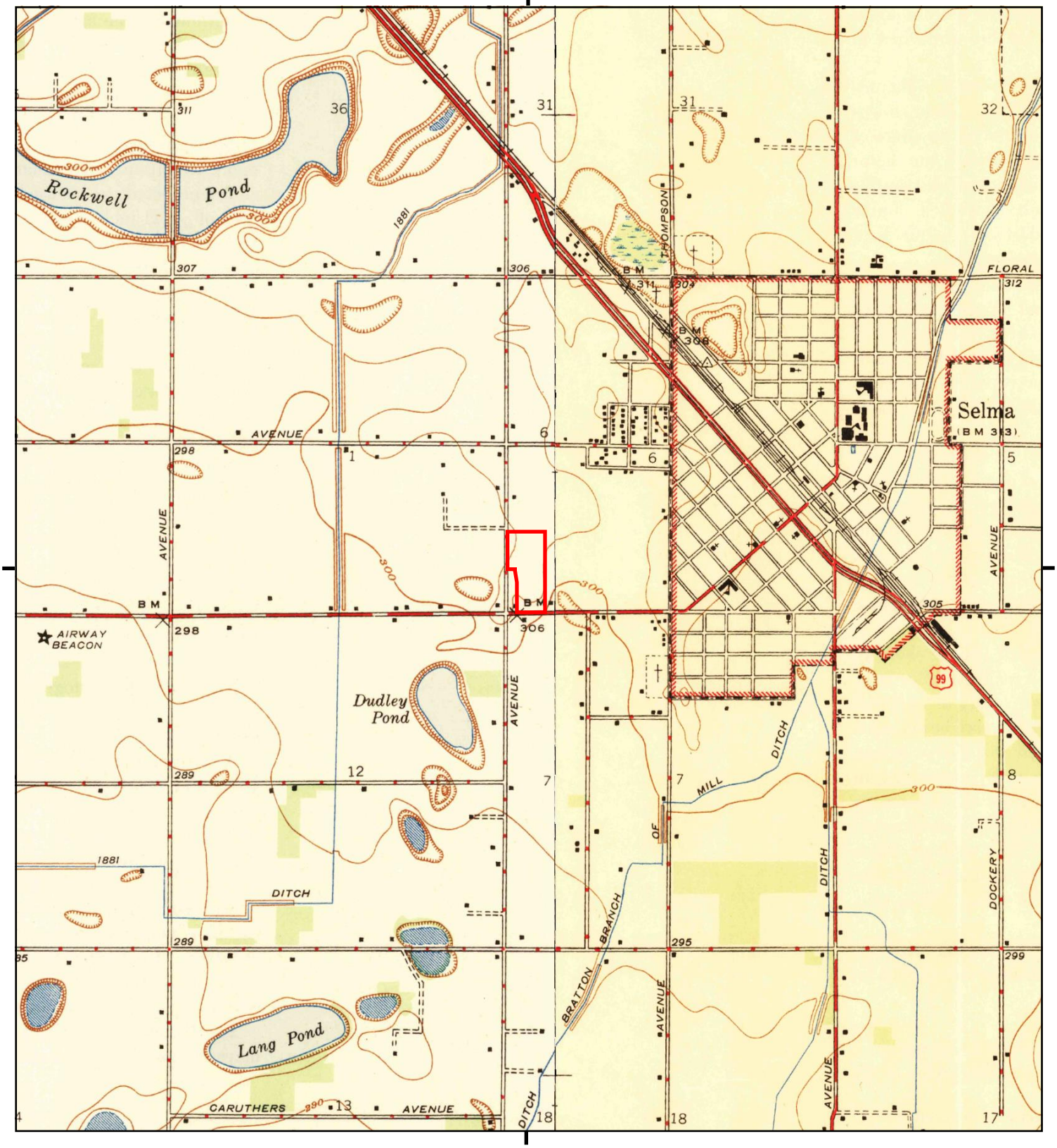
TP, CONEJO, 1948, 7.5-minute
E, SELMA, 1948, 7.5-minute

SITE NAME: 2850 Nebraska
ADDRESS: 2850 Nebraska
Selma, CA 93662
CLIENT: Haro Environmental, Inc.

N

Historical Topo Map

1947



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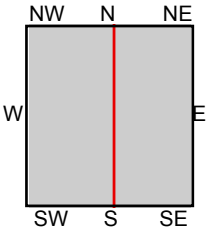
0 Miles 0.25 0.5 1 1.5



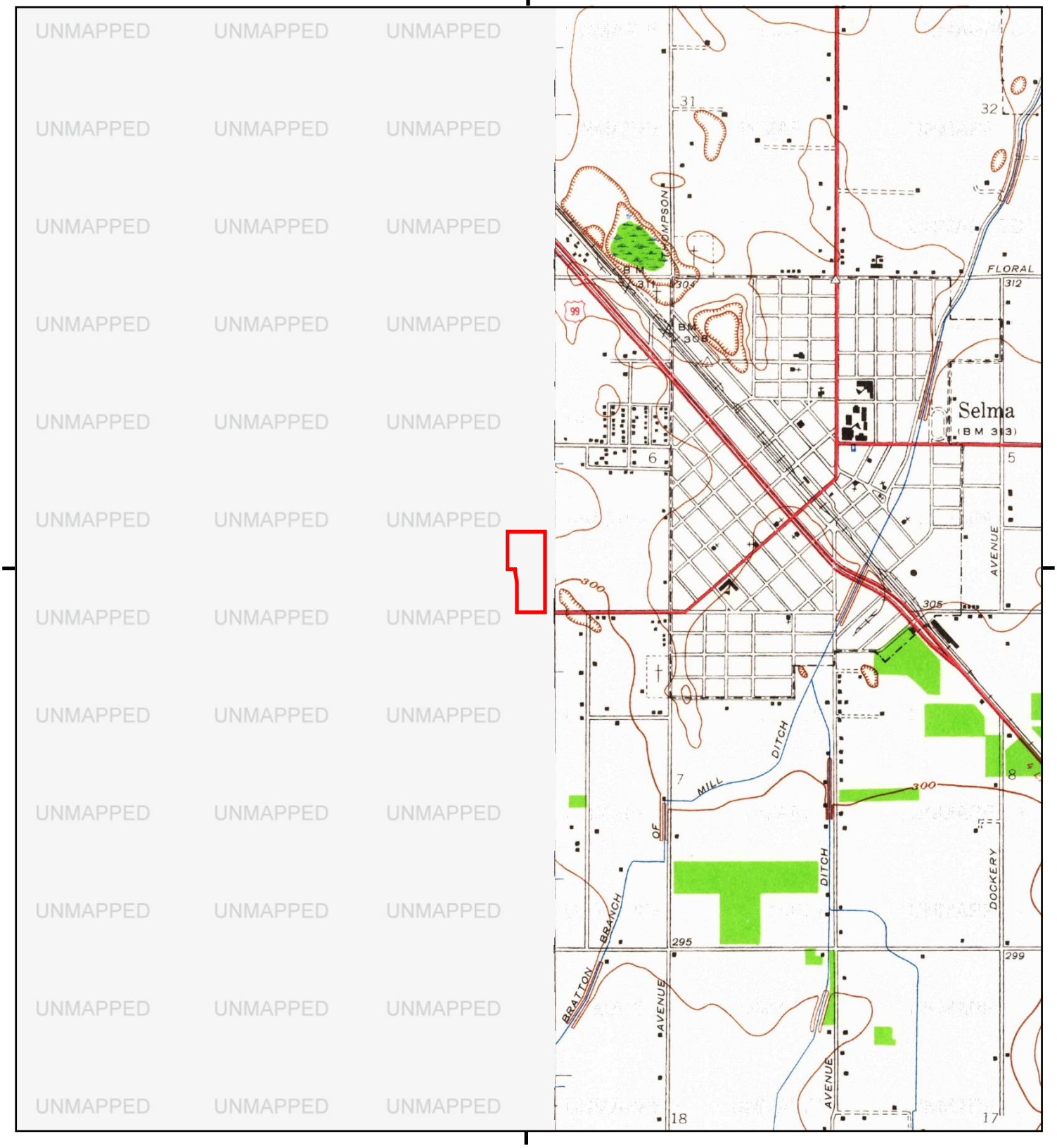
TP, Conejo, 1947, 7.5-minute
E, Selma, 1947, 7.5-minute

SITE NAME: 2850 Nebraska
ADDRESS: 2850 Nebraska
Selma, CA 93662
CLIENT: Haro Environmental, Inc.

N

Historical Topo Map

1946



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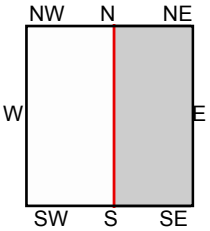


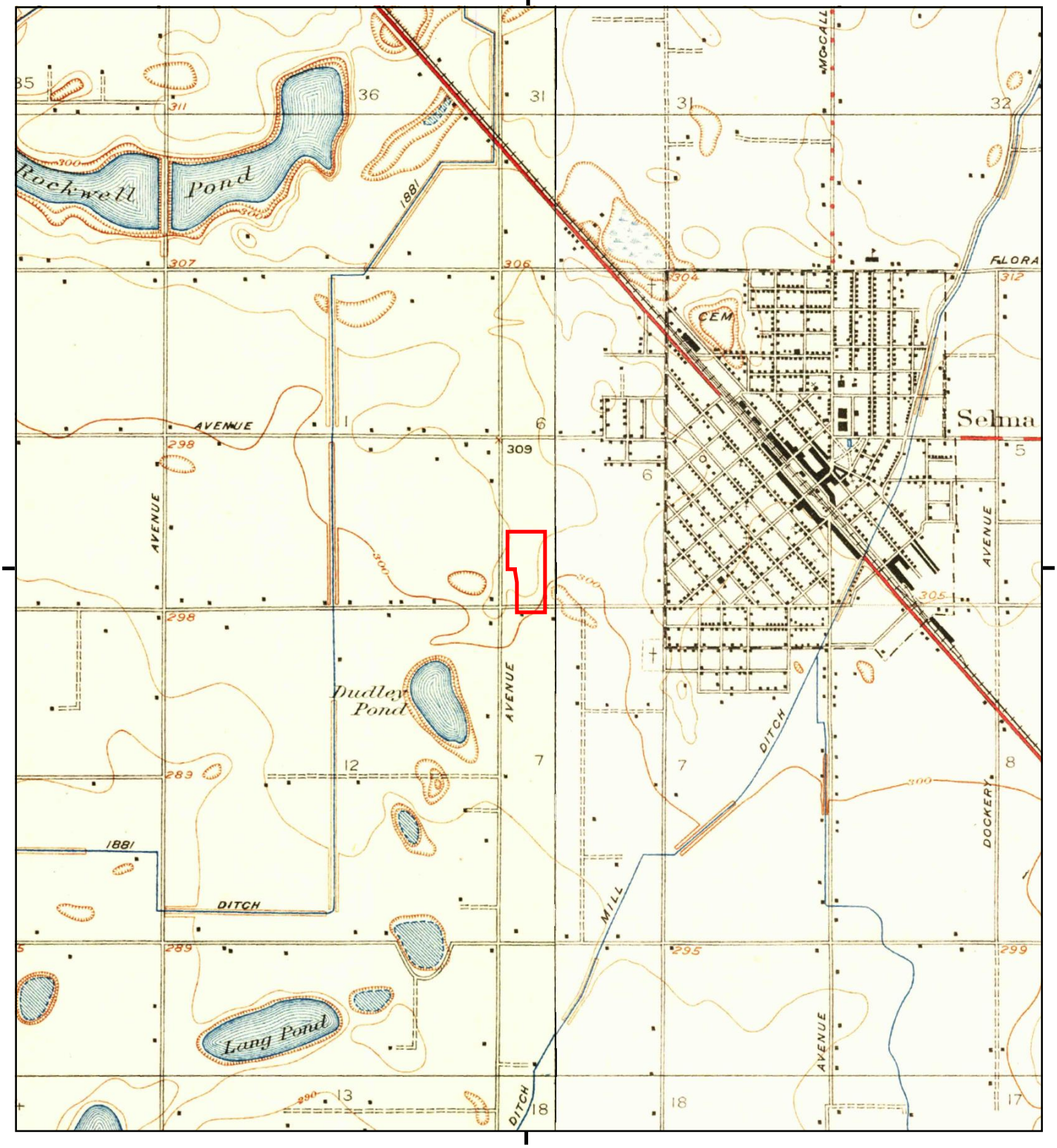
E, Selma, 1946, 7.5-minute

SITE NAME: 2850 Nebraska
ADDRESS: 2850 Nebraska
Selma, CA 93662
CLIENT: Haro Environmental, Inc.

N

Historical Topo Map

1924



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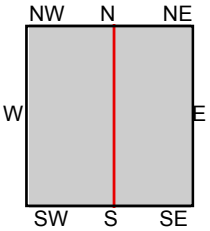
0 Miles 0.25 0.5 1 1.5



TP, Conejo, 1924, 7.5-minute
E, Selma, 1924, 7.5-minute

SITE NAME: 2850 Nebraska
ADDRESS: 2850 Nebraska
Selma, CA 93662
CLIENT: Haro Environmental, Inc.

N

2850 Nebraska

2850 Nebraska

Selma, CA 93662

Inquiry Number: 6898923.8

March 15, 2022

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

03/15/22

Site Name:

2850 Nebraska
2850 Nebraska
Selma, CA 93662
EDR Inquiry # 6898923.8

Client Name:

Haro Environmental, Inc.
PO Box 7002
Los Osos, CA 93412
Contact: Elliot Haro

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	*Scale*	*Details*	*Source*
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1998	1"=500'	Acquisition Date: August 17, 1998	USGS/DOQQ
1987	1"=500'	Flight Date: June 17, 1987	USDA
1984	1"=500'	Flight Date: June 09, 1984	USDA
1979	1"=500'	Flight Date: September 05, 1979	USDA
1973	1"=500'	Flight Date: May 08, 1973	USDA
1967	1"=500'	Flight Date: July 22, 1967	USDA
1962	1"=500'	Flight Date: August 12, 1962	USGS
1957	1"=500'	Flight Date: August 15, 1957	USDA
1950	1"=500'	Flight Date: January 31, 1950	USDA
1946	1"=500'	Flight Date: April 22, 1946	USGS
1937	1"=500'	Flight Date: September 14, 1937	USDA

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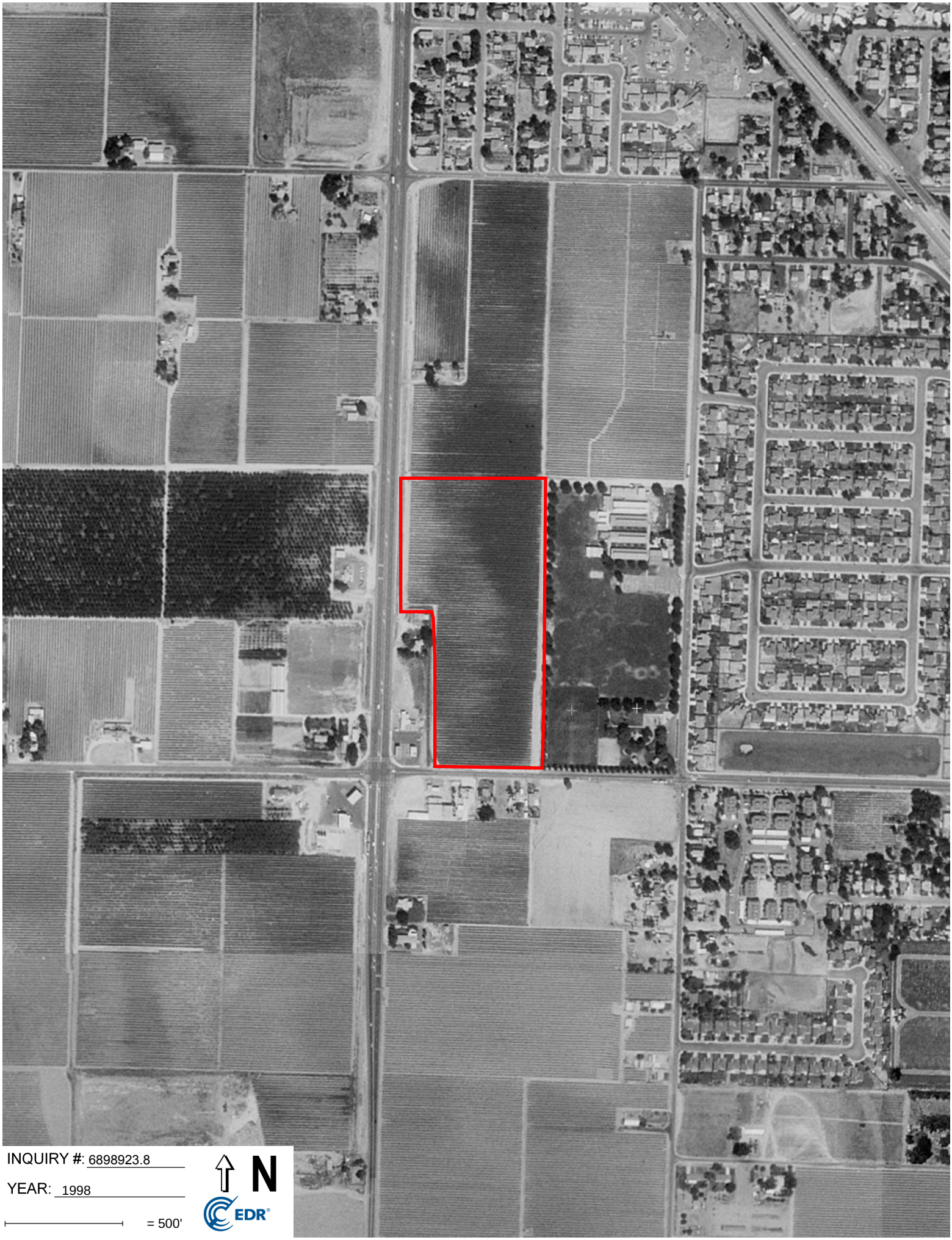
INQUIRY #: 6898923.8
YEAR: 2016
= 500'
N
EDR

INQUIRY #: 6898923.8
YEAR: 2012
= 500'
N
EDR

INQUIRY #: 6898923.8
YEAR: 2009
= 500'
N
EDR

INQUIRY #: 6898923.8
YEAR: 2006
= 500'
N
EDR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YEAR: 1998
= 500'
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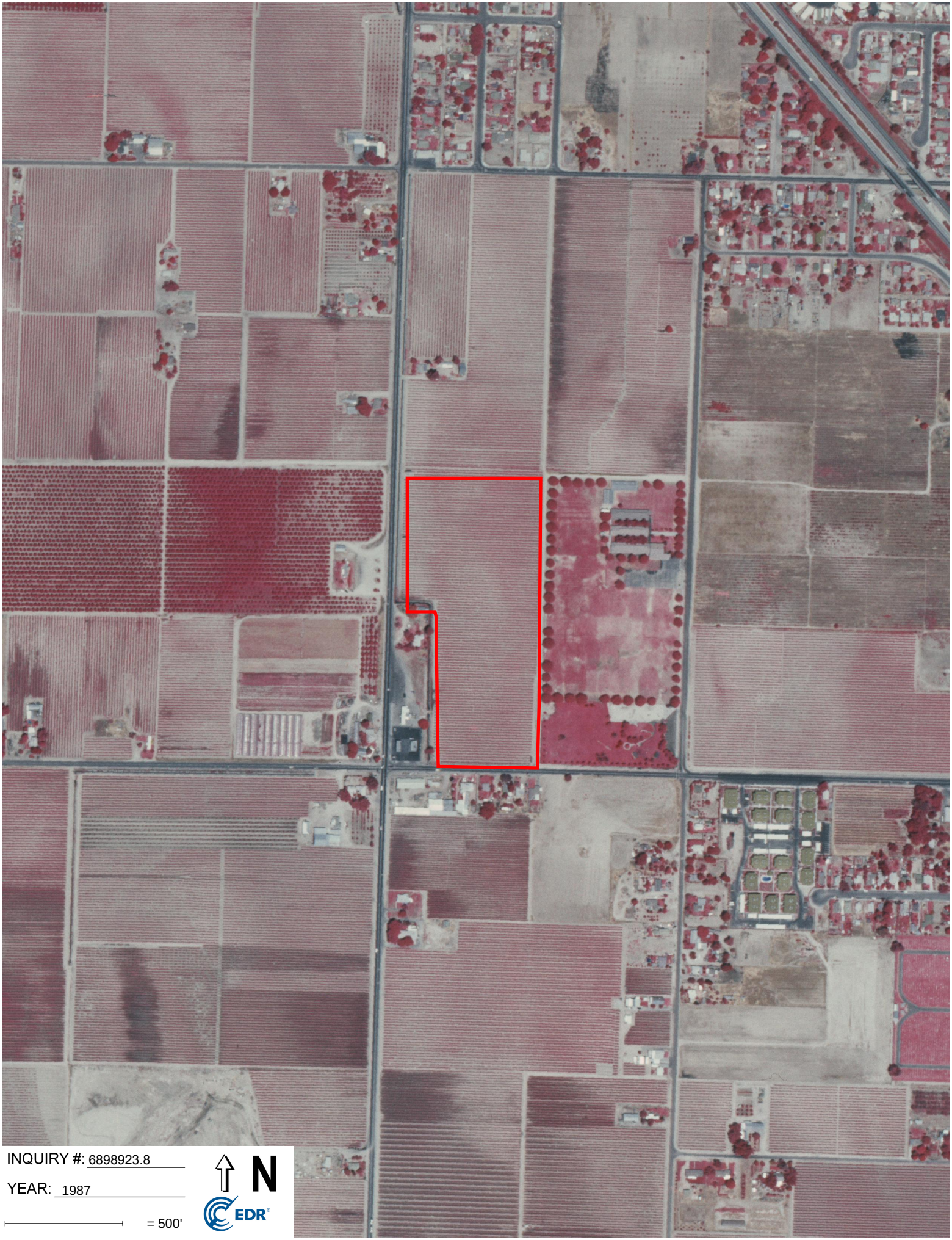
EDR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YEAR: 1987
= 500'
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EDR

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YEAR: 1984
= 500'
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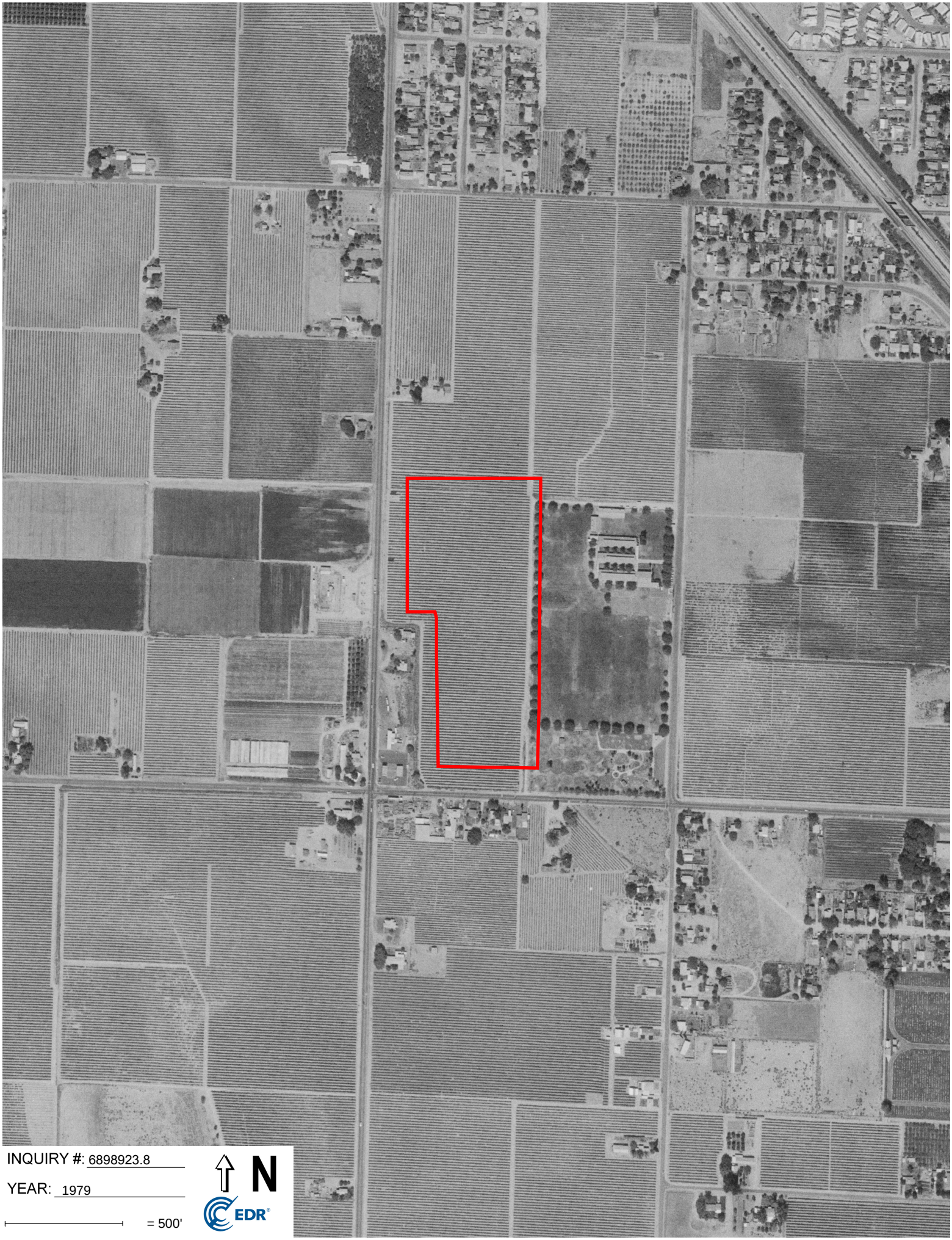
EDR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YEAR: 1979
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EDR

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YEAR: 1973
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EDR

INQUIRY #: 6898923.8
YEAR: 1967
= 500'
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EDR

INQUIRY #: 6898923.8

YEAR: 1962

= 500'

N

EDR

INQUIRY #: 6898923.8
YEAR: 1957
= 500'
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EDR

INQUIRY #: 6898923.8
YEAR: 1950
= 500'
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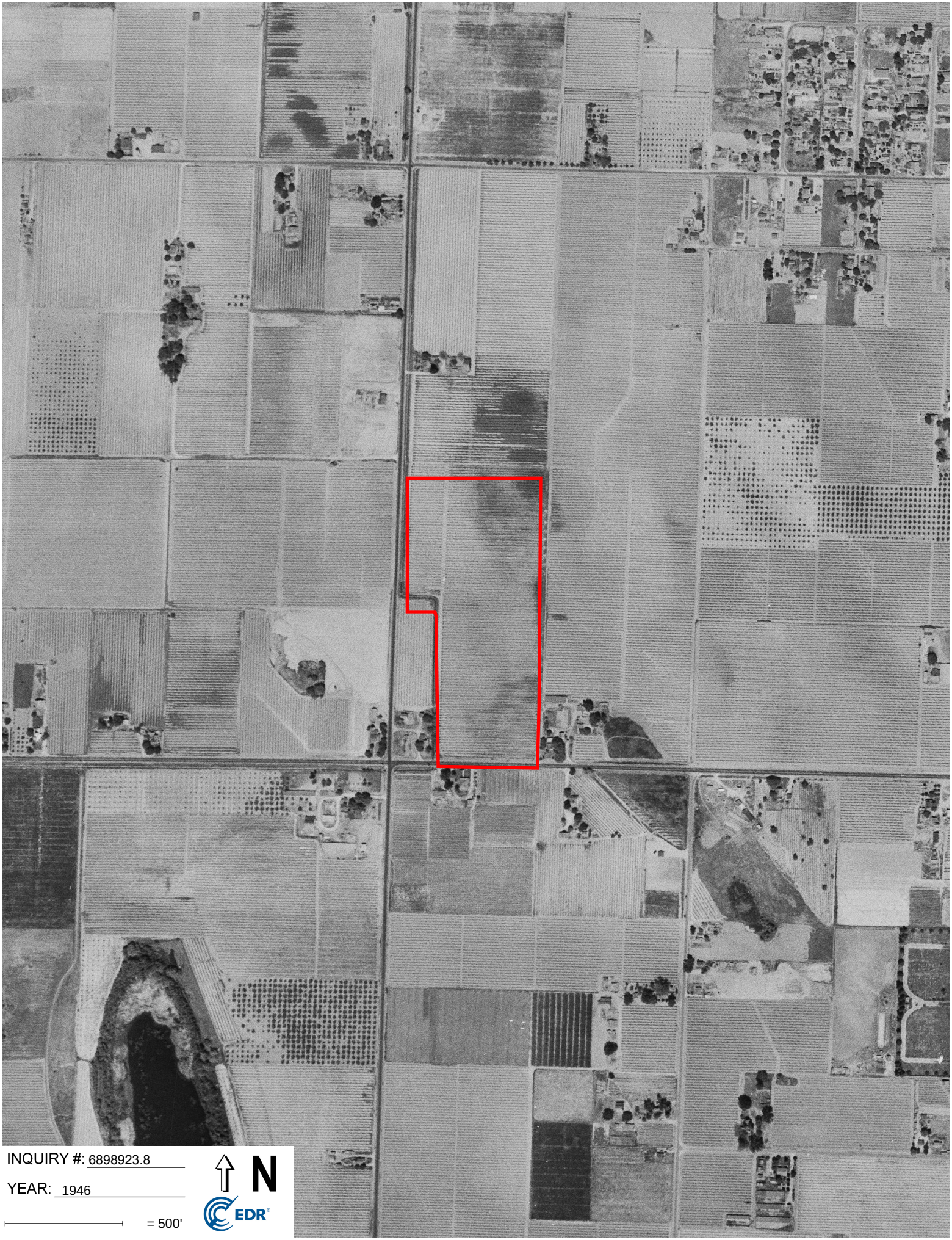
EDR


INQUIRY #: 6898923.8
YEAR: 1946
= 500'
N
EDR

INQUIRY #: 6898923.8

YEAR: 1937

= 500'

N

EDR

2850 Nebraska
2850 Nebraska
Selma, CA 93662

Inquiry Number: 6898923.2s
March 15, 2022

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527-21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

2850 NEBRASKA
SELMA, CA 93662

COORDINATES

Latitude (North):	36.5636300 - 36ˆ 33' 49.06''
Longitude (West):	119.6273700 - 119ˆ 37' 38.53''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	264868.1
UTM Y (Meters):	4049477.0
Elevation:	307 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	12012159 CONEJO, CA
Version Date:	2018
East Map:	12012237 SELMA, CA
Version Date:	2018

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140618
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
2850 NEBRASKA
SELMA, CA 93662

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	SELMA QUICK STOP	2004 S HIGHLAND AVE	UST	Higher	78, 0.015, SSW
A2	SELMA QUICK STOP*	2004 S HIGHLAND AVE	CERS TANKS, CUPA Listings, CERS	Higher	81, 0.015, SSW
A3	SELMA 76	2004 S HIGHLAND AVE	CUPA Listings	Higher	136, 0.026, SSW
A4	LARRYS BEACON	11946 S HIGHLAND	LUST, SWEEPS UST, Cortese, CERS	Higher	143, 0.027, SW
A5	LARRYS BEACON	11946 S HIGHLAND AVE	EDR Hist Auto	Higher	198, 0.038, SW
A6	BEACON STATION # 480	11946 S HIGHLAND AVE	HIST UST, EMI, CERS	Higher	198, 0.038, SW
B7	JOSAN & JOSAN INC	12019 S HIGHLAND AVE	EDR Hist Auto	Lower	397, 0.075, SSW
B8	SELMA ARCO AM/PM	12019 S HIGHLAND AVE	CERS TANKS, CUPA Listings, CERS	Lower	397, 0.075, SSW
B9	TOKUNAGA FARM	12019 S HIGHLAND AVE	SWEEPS UST, HIST UST, EMI, CERS	Lower	397, 0.075, SSW
B10	SELMA ARCO AM/PM	12019 S HIGHLAND AVE	UST	Lower	397, 0.075, SSW
11	CALIFORNIA WATER SER	1972 N MITCHELL ST	CUPA Listings	Lower	732, 0.139, SE
12	HOPE TRANSPORT INC	3007 ROSE AVE	CUPA Listings	Higher	1263, 0.239, NNW
13	QUIROZ RECYCLING	2507 NEBRASKA AVE	SWRCY	Lower	1878, 0.356, ESE
14	HIGHLAND DISPOSAL	12319 S HIGHLAND AVE	SWF/LF, CDL, CERS	Lower	2182, 0.413, SSW
C15	WELL 19-01 - RAW		PFAS	Higher	2541, 0.481, ENE
C16	PG AND E MANUFACTURE	BLOCK OF NORTH,SHERM	EDR MGP	Higher	2727, 0.516, ENE
C17	PG&E MANUFACTURED GA	BLOCK: NORTH,SHERMAN	ENVIROSTOR, VCP, HIST Cal-Sites	Higher	2736, 0.518, ENE
18	PG&E FORMER GAS PLAN	2139 SYLVIA	Notify 65	Higher	2924, 0.554, ENE
19	SELMA ELECTROPLATING	2336 CHANDLER STREET	RESPONSE, ENVIROSTOR, CPS-SLIC, HIST Cal-Sites,...	Lower	3911, 0.741, NE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL ..... National Priority List
Proposed NPL ..... Proposed National Priority List Sites
NPL LIENS ..... Federal Superfund Liens

Lists of Federal Delisted NPL sites

Delisted NPL ..... National Priority List Deletions

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY ..... Federal Facility Site Information listing
SEMS ..... Superfund Enterprise Management System

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE ..... Superfund Enterprise Management System Archive

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS ..... Corrective Action Report

Lists of Federal RCRA TSD facilities

RCRA-TSDF ..... RCRA - Treatment, Storage and Disposal

Lists of Federal RCRA generators

RCRA-LQG ..... RCRA - Large Quantity Generators
RCRA-SQG ..... RCRA - Small Quantity Generators
RCRA-VSQG ..... RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ..... Land Use Control Information System

EXECUTIVE SUMMARY

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROLS..... Institutional Controls Sites List

Federal ERNS list

ERNS..... Emergency Response Notification System

Lists of state and tribal leaking storage tanks

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land
CPS-SLIC..... Statewide SLIC Cases

Lists of state and tribal registered storage tanks

FEMA UST..... Underground Storage Tank Listing
AST..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST..... Underground Storage Tanks on Indian Land

Lists of state and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Program Properties
INDIAN VCP..... Voluntary Cleanup Priority Listing

Lists of state and tribal brownfield sites

BROWNFIELDS..... Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT..... Waste Management Unit Database
HAULERS..... Registered Waste Tire Haulers Listing
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
ODI..... Open Dump Inventory
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register
SCH..... School Property Evaluation Program
CDL..... Clandestine Drug Labs
CERS HAZ WASTE..... CERS HAZ WASTE
Toxic Pits..... Toxic Pits Cleanup Act Sites
US CDL..... National Clandestine Laboratory Register
AQUEOUS FOAM..... Former Fire Training Facility Assessments Listing

Local Lists of Registered Storage Tanks

CA FID UST..... Facility Inventory Database

EXECUTIVE SUMMARY

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
DOCKET HWC	Hazardous Waste Compliance Docket Listing
ECHO	Enforcement & Compliance History Information
UXO	Unexploded Ordnance Sites
FUELS PROGRAM	EPA Fuels Program Registered Listing

EXECUTIVE SUMMARY

CA BOND EXP. PLAN..... Bond Expenditure Plan
DRYCLEANERS..... Cleaner Facilities
EMI..... Emissions Inventory Data
ENF..... Enforcement Action Listing
Financial Assurance..... Financial Assurance Information Listing
HAZNET..... Facility and Manifest Data
ICE..... ICE
HIST CORTESE..... Hazardous Waste & Substance Site List
HWP..... EnviroStor Permitted Facilities Listing
HWT..... Registered Hazardous Waste Transporter Database
MINES..... Mines Site Location Listing
MWMP..... Medical Waste Management Program Listing
NPDES..... NPDES Permits Listing
PEST LIC..... Pesticide Regulation Licenses Listing
PROC..... Certified Processors Database
UIC..... UIC Listing
UIC GEO..... UIC GEO (GEOTRACKER)
WASTEWATER PITS..... Oil Wastewater Pits Listing
WDS..... Waste Discharge System
WIP..... Well Investigation Program Case List
MILITARY PRIV SITES..... MILITARY PRIV SITES (GEOTRACKER)
PROJECT..... PROJECT (GEOTRACKER)
WDR..... Waste Discharge Requirements Listing
CIWQS..... California Integrated Water Quality System
CERS..... CERS
NON-CASE INFO..... NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS..... OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS..... PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT..... SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ..... Well Stimulation Project (GEOTRACKER)
MINES MRDS..... Mineral Resources Data System
HWTS..... Hazardous Waste Tracking System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Cleaner..... EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF..... Recovered Government Archive Solid Waste Facilities List
RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

Lists of state- and tribal (Superfund) equivalent sites

RESPONSE: Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

A review of the RESPONSE list, as provided by EDR, has revealed that there is 1 RESPONSE site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SELMA ELECTROPLATING	***2336 CHANDLER STREET***	***NE 1/2 - 1 (0.741 mi.)***	***19***	***65***
Database: RESPONSE, Date of Government Version: 10/25/2021 Facility Id: 10340011 AWP Facility Id: 10340011 Status: Certified				

Lists of state- and tribal hazardous waste facilities

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 10/25/2021 has revealed that there are 2 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PG&E MANUFACTURED GA	***BLOCK: NORTH,SHERMAN***	***ENE 1/2 - 1 (0.518 mi.)***	***C17***	***56***
Facility Id: 10490093 Status: Certified				

Lower Elevation	Address	Direction / Distance	Map ID	Page
SELMA ELECTROPLATING	***2336 CHANDLER STREET***	***NE 1/2 - 1 (0.741 mi.)***	***19***	***65***
Facility Id: 10340011 Status: Certified				

EXECUTIVE SUMMARY

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, has revealed that there is 1 SWF/LF site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HIGHLAND DISPOSAL	***12319 S HIGHLAND AVE***	***SSW 1/4 - 1/2 (0.413 mi.)***	***14***	***45***

Database: SWF/LF (SWIS), Date of Government Version: 11/08/2021
Facility ID: 10-CR-0046
Operational Status: Closed
Regulation Status: Pre-regulation

Lists of state and tribal leaking storage tanks

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there is 1 LUST site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LARRYS BEACON	***11946 S HIGHLAND***	***SW 0 - 1/8 (0.027 mi.)***	***A4***	***17***

Database: LUST REG 5, Date of Government Version: 07/01/2008
Database: LUST, Date of Government Version: 12/06/2021
Status: Remediation Plan
Global Id: T0601993689
Status: Completed - Case Closed

Lists of state and tribal registered storage tanks

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there are 2 UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SELMA QUICK STOP	2004 S HIGHLAND AVE	SSW 0 - 1/8 (0.015 mi.)	A1	9

Database: UST, Date of Government Version: 12/06/2021
Facility Id: FA0277331

Lower Elevation	Address	Direction / Distance	Map ID	Page
SELMA ARCO AM/PM	12019 S HIGHLAND AVE	SSW 0 - 1/8 (0.075 mi.)	B10	44

Database: UST, Date of Government Version: 12/06/2021

EXECUTIVE SUMMARY

Facility Id: FA0273090

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: A listing of recycling facilities in California.

A review of the SWRCY list, as provided by EDR, and dated 12/06/2021 has revealed that there is 1 SWRCY site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
QUIROZ RECYCLING Cert Id: RC296074.001	2507 NEBRASKA AVE	ESE 1/4 - 1/2 (0.356 mi.)	13	45

Local Lists of Hazardous waste / Contaminated Sites

HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there are 2 HIST Cal-Sites sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PG&E MANUFACTURED GA	***BLOCK: NORTH,SHERMAN***	***ENE 1/2 - 1 (0.518 mi.)***	***C17***	***56***

Lower Elevation	Address	Direction / Distance	Map ID	Page
SELMA ELECTROPLATING	***2336 CHANDLER STREET***	***NE 1/2 - 1 (0.741 mi.)***	***19***	***65***

PFAS: A listing of PFAS contaminated sites included in the GeoTracker database.

A review of the PFAS list, as provided by EDR, and dated 12/06/2021 has revealed that there is 1 PFAS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WELL 19-01 - RAW		ENE 1/4 - 1/2 (0.481 mi.)	C15	48

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no

longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 2 SWEEPS UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LARRYS BEACON Status: A Tank Status: A Comp Number: 36366	***11946 S HIGHLAND***	***SW 0 - 1/8 (0.027 mi.)***	***A4***	***17***

Lower Elevation	Address	Direction / Distance	Map ID	Page
TOKUNAGA FARM Status: A Tank Status: A Comp Number: 22572	***12019 S HIGHLAND AVE***	***SSW 0 - 1/8 (0.075 mi.)***	***B9***	***40***

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 2 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BEACON STATION # 480 Facility Id: 00000042258	***11946 S HIGHLAND AVE***	***SW 0 - 1/8 (0.038 mi.)***	***A6***	***24***

Lower Elevation	Address	Direction / Distance	Map ID	Page
TOKUNAGA FARM Facility Id: 00000022572	***12019 S HIGHLAND AVE***	***SSW 0 - 1/8 (0.075 mi.)***	***B9***	***40***

CERS TANKS: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

A review of the CERS TANKS list, as provided by EDR, and dated 10/18/2021 has revealed that there are 2 CERS TANKS sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SELMA QUICK STOP*	***2004 S HIGHLAND AVE***	***SSW 0 - 1/8 (0.015 mi.)***	***A2***	***9***

Lower Elevation	Address	Direction / Distance	Map ID	Page
SELMA ARCO AM/PM	***12019 S HIGHLAND AVE***	***SSW 0 - 1/8 (0.075 mi.)***	***B8***	***29***

Other Ascertainable Records

Cortese: The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

A review of the Cortese list, as provided by EDR, and dated 12/16/2021 has revealed that there is 1 Cortese site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LARRYS BEACON	***11946 S HIGHLAND***	***SW 0 - 1/8 (0.027 mi.)***	***A4***	***17***
Cleanup Status: COMPLETED - CASE CLOSED				

CUPA Listings: A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

A review of the CUPA Listings list, as provided by EDR, has revealed that there are 5 CUPA Listings sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SELMA QUICK STOP*	***2004 S HIGHLAND AVE***	***SSW 0 - 1/8 (0.015 mi.)***	***A2***	***9***
Database: CUPA FRESNO, Date of Government Version: 06/28/2021 Facility Id: FA0277331				
SELMA 76	2004 S HIGHLAND AVE	SSW 0 - 1/8 (0.026 mi.)	A3	16
Database: CUPA FRESNO, Date of Government Version: 06/28/2021 Facility Id: FA0277330				
HOPE TRANSPORT INC	3007 ROSE AVE	NNW 1/8 - 1/4 (0.239 mi.)	12	45
Database: CUPA FRESNO, Date of Government Version: 06/28/2021 Facility Id: FA0281934				

Lower Elevation	Address	Direction / Distance	Map ID	Page
SELMA ARCO AM/PM	***12019 S HIGHLAND AVE***	***SSW 0 - 1/8 (0.075 mi.)***	***B8***	***29***
Database: CUPA FRESNO, Date of Government Version: 06/28/2021 Facility Id: FA0273090				
CALIFORNIA WATER SER	1972 N MITCHELL ST	SE 1/8 - 1/4 (0.139 mi.)	11	44
Database: CUPA FRESNO, Date of Government Version: 06/28/2021 Facility Id: FA0278795				

Notify 65: Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

A review of the Notify 65 list, as provided by EDR, and dated 12/13/2021 has revealed that there is 1 Notify 65 site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PG&E FORMER GAS PLAN	2139 SYLVIA	ENE 1/2 - 1 (0.554 mi.)	18	65

EXECUTIVE SUMMARY

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

A review of the EDR MGP list, as provided by EDR, has revealed that there is 1 EDR MGP site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PG AND E MANUFACTURE	BLOCK OF NORTH,SHERM	ENE 1/2 - 1 (0.516 mi.)	C16	56

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 2 EDR Hist Auto sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LARRYS BEACON	11946 S HIGHLAND AVE	SW 0 - 1/8 (0.038 mi.)	A5	23

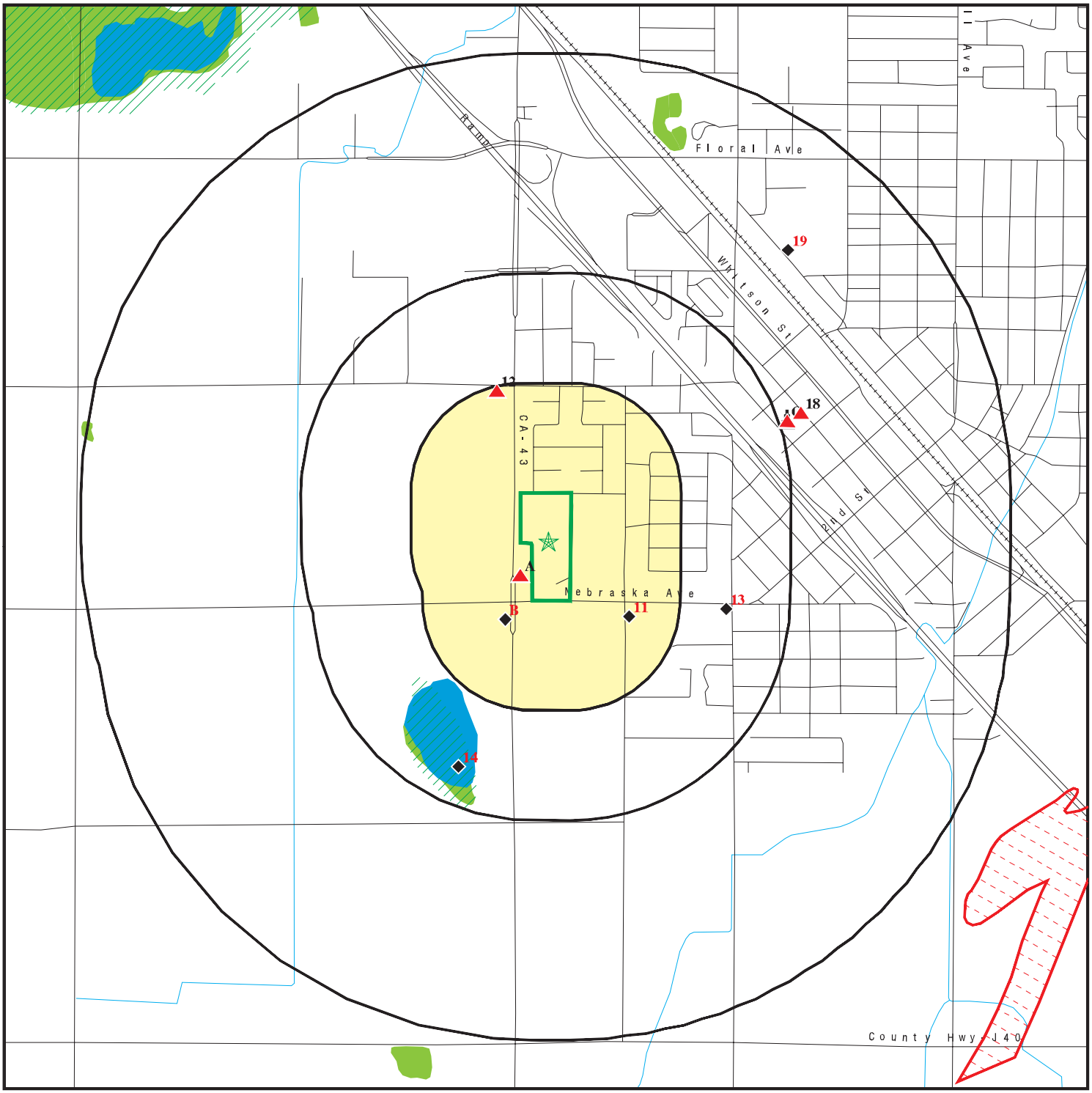
Lower Elevation	Address	Direction / Distance	Map ID	Page
JOSAN & JOSAN INC	12019 S HIGHLAND AVE	SSW 0 - 1/8 (0.075 mi.)	B7	29

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 3 records.

Site Name	Database(s)
PG&E GAS PLANT SELMA	CDL
SELMA SCAVENGER CO (2)	SEMS-ARCHIVE
	ENVIROSTOR

OVERVIEW MAP - 6898923.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 2850 Nebraska ADDRESS: 2850 Nebraska Selma CA 93662 LAT/LONG: 36.56363 / 119.62737	CLIENT: Haro Environmental, Inc. CONTACT: Elliot Haro INQUIRY #: 6898923.2s DATE: March 15, 2022 1:59 pm

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DETAIL MAP - 6898923.2S

Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 2850 Nebraska	CLIENT: Haro Environmental, Inc.
ADDRESS: 2850 Nebraska Selma CA 93662	CONTACT: Elliot Haro INQUIRY #: 6898923.2s
LAT/LONG: 36.56363 / 119.62737	DATE: March 15, 2022 2:02 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		0	0	0	0	NR	0
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
Lists of state- and tribal (Superfund) equivalent sites								
RESPONSE	1.000		0	0	0	1	NR	1
Lists of state- and tribal hazardous waste facilities								
ENVIROSTOR	1.000		0	0	0	2	NR	2
Lists of state and tribal landfills and solid waste disposal facilities								
SWF/LF	0.500		0	0	1	NR	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
Lists of state and tribal leaking storage tanks								
LUST	0.500		1	0	0	NR	NR	1
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		2	0	NR	NR	NR	2
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	1	NR	NR	1
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	2	NR	2
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
CERS HAZ WASTE	0.250		0	0	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
PFAS	0.500		0	0	1	NR	NR	1
AQUEOUS FOAM	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		2	0	NR	NR	NR	2
HIST UST	0.250		2	0	NR	NR	NR	2
CA FID UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CERS TANKS	0.250		2	0	NR	NR	NR	2
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		1	0	0	NR	NR	1
CUPA Listings	0.250		3	2	NR	NR	NR	5
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		0	NR	NR	NR	NR	0
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	1	NR	1
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001		0	NR	NR	NR	NR	0
CERS	0.001		0	NR	NR	NR	NR	0
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	1	NR	1
EDR Hist Auto	0.125		2	NR	NR	NR	NR	2
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	15	2	3	7	0	27

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 SSW < 1/8 0.015 mi. 78 ft. | **SELMA QUICK STOP** | **UST** | **U004314107** | **N/A**
2004 S HIGHLAND AVE
SELMA, CA 93662

Site 1 of 6 in cluster A

Relative: Higher
Actual: 308 ft.

UST:

Name:	SELMA QUICK STOP
Address:	2004 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Facility ID:	FA0277331
Permitting Agency:	7000
CERSID:	10608955
Latitude:	36.56196
Longitude:	-119.6283

A2 SSW < 1/8 0.015 mi. 81 ft. | **SELMA QUICK STOP*** | **CERS TANKS** | **S121141108**
2004 S HIGHLAND AVE | **CUPA Listings** | **N/A**
SELMA, CA 93662 | **CERS**

Site 2 of 6 in cluster A

Relative: Higher
Actual: 308 ft.

CERS TANKS:

Name:	SELMA QUICK STOP
Address:	2004 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Site ID:	519944
CERS ID:	10608955
CERS Description:	Underground Storage Tank

CUPA FRESNO:

Name:	SELMA QUICK STOP*
Address:	2004 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Region:	FRESNO
Cross Street:	NEBRASKA
Facility ID:	FA0277331
APM Number:	38803011
Program Element:	UST FACILITY WITH 1 TO 3 TANKS

Name:	SELMA QUICK STOP*
Address:	2004 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Region:	FRESNO
Cross Street:	NEBRASKA
Facility ID:	FA0277331
APM Number:	38803011
Program Element:	MV FUEL/OIL/PROPANE ONLY IN AGST/UST MODEL PL

CERS:

Name:	SELMA QUICK STOP
Address:	2004 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Site ID:	519944
CERS ID:	10608955
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	519944

SELMA QUICK STOP* (Continued) **S121141108**

Site Name:	Selma Quick Stop
Violation Date:	06-16-2014
Citation:	HSC 6.7 Multiple Sections - California Health and Safety Code, Chapter 6.7, Section(s) Multiple Sections
Violation Description:	UST Program - Operations/Maintenance - General
Violation Notes:	Returned to compliance on 07/24/2014.
Violation Division:	Fresno County Department of Public Health
Violation Program:	UST
Violation Source:	CERS,

Site ID:	519944
Site Name:	Selma Quick Stop
Violation Date:	06-22-2015
Citation:	HSC 6.7 25284.2 - California Health and Safety Code, Chapter 6.7, Section(s) 25284.2
Violation Description:	Failure to test the spill bucket annually.
Violation Notes:	Returned to compliance on 07/20/2015.
Violation Division:	Fresno County Department of Public Health
Violation Program:	UST
Violation Source:	CERS,

Site ID:	519944
Site Name:	Selma Quick Stop
Violation Date:	04-10-2018
Citation:	HSC 6.7 25284.2 - California Health and Safety Code, Chapter 6.7, Section(s) 25284.2
Violation Description:	Failure to test the spill bucket annually.
Violation Notes:	Returned to compliance on 05/10/2018.
Violation Division:	Fresno County Department of Public Health
Violation Program:	UST
Violation Source:	CERS,

Site ID:	519944
Site Name:	Selma Quick Stop
Violation Date:	04-10-2018
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit a site map with all required content.
Violation Notes:	Returned to compliance on 05/10/2018.
Violation Division:	Fresno County Department of Public Health
Violation Program:	HMRRP
Violation Source:	CERS,

Site ID:	519944
Site Name:	Selma Quick Stop
Violation Date:	06-22-2015
Citation:	23 CCR 16 2638 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2638
Violation Description:	Failure to test leak detection equipment as required every 12 months (VPH, sensor, LLD, ATG, etc.) and/or submit monitoring system certification to the CUPA within 30 days of completion of the test
Violation Notes:	Returned to compliance on 07/20/2015.
Violation Division:	Fresno County Department of Public Health
Violation Program:	UST
Violation Source:	CERS,

SELMA QUICK STOP* (Continued) **S121141108**

Site ID:	519944
Site Name:	Selma Quick Stop
Violation Date:	04-10-2018
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page.
Violation Notes:	Returned to compliance on 05/10/2018.
Violation Division:	Fresno County Department of Public Health
Violation Program:	HMRRP
Violation Source:	CERS,

Site ID:	519944
Site Name:	Selma Quick Stop
Violation Date:	07-20-2015
Citation:	23 CCR 16 2637 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2637
Violation Description:	Failure to comply with one or more of the following: conduct secondary containment testing, within six months of installation and every 36 months thereafter, conducted in accordance with proper practices, protocols, or test methods.
Violation Notes:	Returned to compliance on 10/07/2015.
Violation Division:	Fresno County Department of Public Health
Violation Program:	UST
Violation Source:	CERS,

Site ID:	519944
Site Name:	Selma Quick Stop
Violation Date:	07-16-2018
Citation:	HSC 6.7 25284 - California Health and Safety Code, Chapter 6.7, Section(s) 25284
Violation Description:	Failure to obtain a valid permit to operate from the UPA including but not limited to unpaid permit fees.
Violation Notes:	Returned to compliance on 07/16/2018.
Violation Division:	Fresno County Department of Public Health
Violation Program:	UST
Violation Source:	CERS,

Site ID:	519944
Site Name:	Selma Quick Stop
Violation Date:	07-16-2018
Citation:	23 CCR 16 2637 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2637
Violation Description:	Failure to conduct secondary containment testing, or one or more of the following requirements: Perform the test within six months of installation and every 36 months thereafter.Use a procedure that demonstrates the system works as well as at installation.Use applicable manufacturer guidelines, industry codes, engineering standard, or professional engineer approval.Performed by a certified service technician or a licensed tank tester.
Violation Notes:	Returned to compliance on 07/16/2018.
Violation Division:	Fresno County Department of Public Health
Violation Program:	UST
Violation Source:	CERS,

Site ID:	519944
Site Name:	Selma Quick Stop

SELMA QUICK STOP* (Continued) **S121141108**

Violation Date:	04-10-2018
Citation:	23 CCR 16 2715(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(i)
Violation Description:	Failure to have a properly qualified service technician test leak detection equipment as required every 12 months (vapor, pressure, hydrostatic (VPH) system, sensors, line-leak detectors (LLD), automatic tank gauge (ATG), etc.).
Violation Notes:	Returned to compliance on 05/10/2018.
Violation Division:	Fresno County Department of Public Health
Violation Program:	UST
Violation Source:	CERS,

Site ID:	519944
Site Name:	Selma Quick Stop
Violation Date:	06-16-2014
Citation:	HSC 6.95 25503.5(a) - California Health and Safety Code, Chapter 6.95, Section(s) 25503.5(a)
Violation Description:	Owner/Operator failed to establish and implement a Hazardous Materials Business Plan when storing hazardous materials at or above the thresholds quantities of 55 gallons/500 lbs/200 cubic feet.
Violation Notes:	Returned to compliance on 08/15/2014.
Violation Division:	Fresno County Department of Public Health
Violation Program:	HMRRP
Violation Source:	CERS,

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-10-2018
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Fresno County Department of Public Health
Eval Program:	HMRRP
Eval Source:	CERS,

Eval General Type:	Other/Unknown
Eval Date:	04-16-2018
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	MC, portal assistance
Eval Division:	Fresno County Department of Public Health
Eval Program:	UST
Eval Source:	CERS,

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-16-2014
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	mc
Eval Division:	Fresno County Department of Public Health
Eval Program:	HMRRP
Eval Source:	CERS,

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-16-2014
Violations Found:	Yes
Eval Type:	Routine done by local agency

SELMA QUICK STOP* (Continued) **S121141108**

Eval Notes:	MC
Eval Division:	Fresno County Department of Public Health
Eval Program:	UST
Eval Source:	CERS,
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	07-15-2016
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	MC
Eval Division:	Fresno County Department of Public Health
Eval Program:	UST
Eval Source:	CERS,
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	07-20-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	MC
Eval Division:	Fresno County Department of Public Health
Eval Program:	UST
Eval Source:	CERS,
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-10-2018
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	cold call
Eval Division:	Fresno County Department of Public Health
Eval Program:	UST
Eval Source:	CERS,
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-04-2021
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Reviewing HMBP submittal. Previous violations have been corrected.
Eval Division:	Fresno County Department of Public Health
Eval Program:	UST
Eval Source:	CERS,
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-22-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	cold call
Eval Division:	Fresno County Department of Public Health
Eval Program:	UST
Eval Source:	CERS,
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	07-16-2018
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	MC
Eval Division:	Fresno County Department of Public Health
Eval Program:	UST

SELMA QUICK STOP* (Continued) **S121141108**

Eval Source:	CERS,
Eval General Type:	Other/Unknown
Eval Date:	07-24-2014
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	LLD test
Eval Division:	Fresno County Department of Public Health
Eval Program:	UST
Eval Source:	CERS,

Enforcement Action:

Site ID:	519944
Site Name:	Selma Quick Stop
Site Address:	2004 S HIGHLAND AVE
Site City:	SELMA
Site Zip:	93662
Enf Action Date:	04-10-2018
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Fresno County Department of Public Health
Enf Action Program:	HMRRP
Enf Action Source:	CERS,

Coordinates:

Site ID:	519944
Facility Name:	Selma Quick Stop
Env Int Type Code:	HMBP
Program ID:	10608955
Coord Name:	Not reported
Ref Point Type Desc:	Center of a facility or station.,
Latitude:	36.561960
Longitude:	-119.628300

Affiliation:

Affiliation Type Desc:	CUPA District
Entity Name:	Fresno County Community Health Department
Entity Title:	Not reported
Affiliation Address:	1221 Fulton St., 3rd FloorP.O. Box 11867
Affiliation City:	Fresno
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93775
Affiliation Phone:	(559) 600-3271,
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	2004 S HIGHLAND AVE
Affiliation City:	SELMA
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93662
Affiliation Phone:	,

SELMA QUICK STOP* (Continued) **S121141108**

Affiliation Type Desc:	Identification Signer
Entity Name:	PARDEEP LIDDER
Entity Title:	MANAGER
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

Affiliation Type Desc:	Parent Corporation
Entity Name:	Selma Quick Stop
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

Affiliation Type Desc:	UST Property Owner Name
Entity Name:	HARJOG LIDDER
Entity Title:	Not reported
Affiliation Address:	2004 HIGHLAND
Affiliation City:	SELMA
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	93662
Affiliation Phone:	(559) 896-1799,

Affiliation Type Desc:	UST Permit Applicant
Entity Name:	HARJOG LIDDER
Entity Title:	OWNER
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(559) 896-1799,

Affiliation Type Desc:	Document Preparer
Entity Name:	PARDEEP LIDDER
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

Affiliation Type Desc:	Environmental Contact
Entity Name:	PARDEEP SINGH LIDDER
Entity Title:	Not reported
Affiliation Address:	2004 S HIGHLAND AVE
Affiliation City:	SELMA
Affiliation State:	CA
Affiliation Country:	Not reported

SELMA QUICK STOP* (Continued) **S121141108**

Affiliation Zip:	93662
Affiliation Phone:	,
Affiliation Type Desc:	Legal Owner
Entity Name:	HSP LIDDER INC
Entity Title:	Not reported
Affiliation Address:	3273 N PLUM LANE
Affiliation City:	HANFORD
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	93230
Affiliation Phone:	(559) 896-1799,
Affiliation Type Desc:	Operator
Entity Name:	HSP LIDDER INC
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(559) 470-9008,
Affiliation Type Desc:	UST Tank Operator
Entity Name:	HARJOG LIDDER
Entity Title:	Not reported
Affiliation Address:	2004 HIGHLAND
Affiliation City:	SELMA
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	93662
Affiliation Phone:	(559) 896-1799,
Affiliation Type Desc:	UST Tank Owner
Entity Name:	HARJOG LIDDER
Entity Title:	Not reported
Affiliation Address:	2004 HIGHLAND
Affiliation City:	SELMA
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	93662
Affiliation Phone:	(559) 896-1799,

A3 **SELMA 76** **CUPA Listings** **S121141107**
SSW **2004 S HIGHLAND AVE** **N/A**
< 1/8 **SELMA, CA 93662**
0.026 mi.
136 ft. **Site 3 of 6 in cluster A**

Relative:
Higher

Actual:
309 ft.

CUPA FRESNO:

Name:	SELMA 76
Address:	2004 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 936629051
Region:	FRESNO
Cross Street:	NEBRASKA
Facility ID:	FA0277330
APM Number:	38803011

SELMA 76 (Continued) **S121141107**

Program Element: FORMER CONTAMINATED SITE/NO FURTHER ACTION

Name: SELMA 76
Address: 2004 S HIGHLAND AVE
City,State,Zip: SELMA, CA 936629051
Region: FRESNO
Cross Street: NEBRASKA
Facility ID: FA0277330
APM Number: 38803011
Program Element: UST REMOVAL/CLOSURE W/3 TANKS

A4 **LARRYS BEACON** **LUST** **S104404281**
SW **11946 S HIGHLAND** **SWEEPS UST** **N/A**
< 1/8 **SELMA, CA 93662** **Cortese**
0.027 mi. **CERS**
143 ft. **Site 4 of 6 in cluster A**

Relative:
Higher

Actual:
309 ft.

LUST:
Name: SELMA 76
Address: 11946 HIGHLAND S
City,State,Zip: SELMA, CA 93662
Lead Agency: CENTRAL VALLEY RWQCB (REGION 5F)
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0601993689
Global Id: T0601993689
Latitude: 36.562576
Longitude: -119.628528
Status: Completed - Case Closed
Status Date: 04/29/2010
Case Worker: JWH
RB Case Number: 5T10000747
Local Agency: FRESNO COUNTY
File Location: Regional Board
Local Case Number: FA0000344
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0601993689
Contact Type: Regional Board Caseworker
Contact Name: JEFFREY HANNEL
Organization Name: CENTRAL VALLEY RWQCB (REGION 5F)
Address: 1685 E STREET
City: FRESNO
Email: jhannel@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0601993689
Contact Type: Local Agency Caseworker
Contact Name: FRESNO COUNTY DPH, ENVIRONMENTAL HEALTH DIV
Organization Name: FRESNO COUNTY
Address: 1221 Fulton Street
City: Fresno
Email: environmentalhealth@fresnocountyca.gov
Phone Number: Not reported

LARRYS BEACON (Continued) **S104404281**

LUST:

Global Id:	T0601993689
Action Type:	RESPONSE
Date:	08/01/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0601993689
Action Type:	RESPONSE
Date:	10/01/2007
Action:	Remedial Progress Report
Global Id:	T0601993689
Action Type:	RESPONSE
Date:	09/01/2006
Action:	Remedial Progress Report
Global Id:	T0601993689
Action Type:	ENFORCEMENT
Date:	07/06/2005
Action:	Site Visit / Inspection / Sampling
Global Id:	T0601993689
Action Type:	ENFORCEMENT
Date:	07/07/2005
Action:	Site Visit / Inspection / Sampling
Global Id:	T0601993689
Action Type:	ENFORCEMENT
Date:	09/21/2005
Action:	Staff Letter
Global Id:	T0601993689
Action Type:	ENFORCEMENT
Date:	04/18/2007
Action:	Staff Letter
Global Id:	T0601993689
Action Type:	ENFORCEMENT
Date:	04/29/2010
Action:	Closure/No Further Action Letter
Global Id:	T0601993689
Action Type:	Other
Date:	04/03/2000
Action:	Leak Discovery
Global Id:	T0601993689
Action Type:	RESPONSE
Date:	11/01/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0601993689
Action Type:	REMEDIATION
Date:	04/01/2008
Action:	Soil Vapor Extraction (SVE)
Global Id:	T0601993689

LARRYS BEACON (Continued) **S104404281**

Action Type: ENFORCEMENT
Date: 06/28/2002
Action: Staff Letter

Global Id: T0601993689
Action Type: ENFORCEMENT
Date: 01/10/2003
Action: Staff Letter

Global Id: T0601993689
Action Type: ENFORCEMENT
Date: 06/20/2005
Action: Staff Letter

Global Id: T0601993689
Action Type: ENFORCEMENT
Date: 10/30/2009
Action: Notification - Preclosure

Global Id: T0601993689
Action Type: Other
Date: 04/08/2000
Action: Leak Reported

Global Id: T0601993689
Action Type: RESPONSE
Date: 11/04/2002
Action: Other Workplan

Global Id: T0601993689
Action Type: RESPONSE
Date: 02/01/2003
Action: Monitoring Report - Quarterly

Global Id: T0601993689
Action Type: RESPONSE
Date: 06/02/2003
Action: Interim Remedial Action Plan

Global Id: T0601993689
Action Type: RESPONSE
Date: 11/30/2009
Action: Correspondence

Global Id: T0601993689
Action Type: RESPONSE
Date: 05/01/2009
Action: Monitoring Report - Quarterly

Global Id: T0601993689
Action Type: RESPONSE
Date: 01/19/2010
Action: Well Destruction Report

Global Id: T0601993689
Action Type: Other
Date: 09/28/1998

LARRYS BEACON (Continued) **S104404281**

Action: Leak Stopped

Global Id: T0601993689
Action Type: RESPONSE
Date: 08/24/2009
Action: Other Report / Document

Global Id: T0601993689
Action Type: RESPONSE
Date: 02/01/2009
Action: Monitoring Report - Quarterly

Global Id: T0601993689
Action Type: RESPONSE
Date: 08/01/2005
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0601993689
Action Type: RESPONSE
Date: 05/01/2008
Action: Monitoring Report - Quarterly

Global Id: T0601993689
Action Type: RESPONSE
Date: 02/01/2008
Action: Monitoring Report - Quarterly

Global Id: T0601993689
Action Type: ENFORCEMENT
Date: 07/21/2009
Action: Staff Letter

Global Id: T0601993689
Action Type: ENFORCEMENT
Date: 12/17/2009
Action: Staff Letter

LUST:
Global Id: T0601993689
Status: Open - Case Begin Date
Status Date: 09/28/1998

Global Id: T0601993689
Status: Open - Site Assessment
Status Date: 04/05/2000

Global Id: T0601993689
Status: Open - Remediation
Status Date: 08/01/2005

Global Id: T0601993689
Status: Completed - Case Closed
Status Date: 04/29/2010

LUST REG 5:

LARRYS BEACON (Continued) **S104404281**

Name: SELMA 76
Address: 11946 HIGHLAND S
City: SELMA
Region: 5
Status: Remediation Plan
Case Number: 5T10000747
Case Type: Drinking Water Aquifer affected
Substance: GASOLINE
Staff Initials: JWH
Lead Agency: Regional
Program: LUST
MTBE Code: N/A

SWEEPS UST:
Name: LARRYS BEACON
Address: 11946 S HIGHLAND
City: SELMA
Status: Active
Comp Number: 36366
Number: 2
Board Of Equalization: Not reported
Referral Date: 11-13-92
Action Date: 11-09-93
Created Date: 11-09-93
Owner Tank Id: 2
SWRCB Tank Id: 10-000-036366-000002
Tank Status: A
Capacity: 10000
Active Date: 11-13-92
Tank Use: M.V. FUEL
STG: P
Content: PRM UNLEADED
Number Of Tanks: Not reported

Name: LARRYS BEACON
Address: 11946 S HIGHLAND
City: SELMA
Status: Active
Comp Number: 36366
Number: 2
Board Of Equalization: Not reported
Referral Date: 11-13-92
Action Date: 11-09-93
Created Date: 11-09-93
Owner Tank Id: 3
SWRCB Tank Id: 10-000-036366-000003
Tank Status: A
Capacity: 10000
Active Date: 11-13-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Name: LARRYS BEACON
Address: 11946 S HIGHLAND
City: SELMA

LARRYS BEACON (Continued) **S104404281**

Status:	Active
Comp Number:	36366
Number:	2
Board Of Equalization:	Not reported
Referral Date:	11-13-92
Action Date:	11-09-93
Created Date:	11-09-93
Owner Tank Id:	1
SWRCB Tank Id:	10-000-036366-000001
Tank Status:	A
Capacity:	10000
Active Date:	11-13-92
Tank Use:	M.V. FUEL
STG:	P
Content:	PRM UNLEADED
Number Of Tanks:	3

CORTESE:

Name:	SELMA 76
Address:	11946 HIGHLAND S
City,State,Zip:	SELMA, CA 93662
Region:	CORTESE
Envirostor Id:	Not reported
Global ID:	T0601993689
Site/Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Status Date:	Not reported
Site Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	active
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported
File Name:	Active Open

CERS:

Name:	SELMA 76
Address:	11946 HIGHLAND S
City,State,Zip:	SELMA, CA 93662
Site ID:	234605
CERS ID:	T0601993689
CERS Description:	Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc:	Local Agency Caseworker
Entity Name:	FRESNO COUNTY DPH, ENVIRONMENTAL HEALTH DIV - FRESNO COUNTY
Entity Title:	Not reported
Affiliation Address:	1221 Fulton Street
Affiliation City:	Fresno

LARRYS BEACON (Continued) **S104404281**

Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,
Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	JEFFREY HANNEL - CENTRAL VALLEY RWQCB (REGION 5F)
Entity Title:	Not reported
Affiliation Address:	1685 E STREET
Affiliation City:	FRESNO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

A5 **LARRYS BEACON** **EDR Hist Auto** **1021865744**
SW **11946 S HIGHLAND AVE** **N/A**
< 1/8 **SELMA, CA 93662**
0.038 mi.
198 ft. **Site 5 of 6 in cluster A**

Relative: EDR Hist Auto
Higher

Actual:
308 ft.

Year:	Name:	Type:
1985	LARRYS BEACON	Gasoline Service Stations
1986	LARRYS BEACON	Gasoline Service Stations
1987	LARRYS BEACON	Gasoline Service Stations
1988	LARRYS BEACON	Gasoline Service Stations
1989	LARRYS BEACON	Gasoline Service Stations, NEC
1990	LARRYS BEACON	Gasoline Service Stations, NEC
1991	LARRYS BEACON	Gasoline Service Stations, NEC
1992	LARRYS BEACON	Gasoline Service Stations, NEC
1993	LARRYS BEACON	Gasoline Service Stations, NEC
1994	LARRYS BEACON	Gasoline Service Stations, NEC
1995	LARRYS BEACON	Gasoline Service Stations, NEC
1996	LARRYS BEACON	Gasoline Service Stations, NEC
1997	LARRYS BEACON	Gasoline Service Stations, NEC
1998	LARRYS BEACON	Gasoline Service Stations, NEC
1999	SELMAS 76	Gasoline Service Stations, NEC
2000	SELMAS 76	Gasoline Service Stations, NEC
2001	BEACON STATION NO 480	Gasoline Service Stations
2001	SELMAS 76	Gasoline Service Stations, NEC
2002	SELMAS 76	Gasoline Service Stations, NEC
2002	BEACON STATION NO 480	Gasoline Service Stations
2003	BEACON STATION NO 480	Gasoline Service Stations
2004	BEACON STATION NO 480	Gasoline Service Stations
2005	BEACON STATION NO 480	Gasoline Service Stations
2006	BEACON STATION NO 480	Gasoline Service Stations

A6 SW < 1/8 0.038 mi. 198 ft. | **BEACON STATION # 480**
11946 S HIGHLAND AVE
SELMA, CA 93662

Site 6 of 6 in cluster A

HIST UST | **U001590831**
EMI | **N/A**
CERS

Relative: Higher

Actual: 308 ft.

HIST UST:

Name:	BEACON STATION # 480
Address:	11946 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
File Number:	Not reported
URL:	Not reported
Region:	STATE
Facility ID:	00000042258
Facility Type:	Gas Station
Other Type:	Not reported
Contact Name:	LARRY GAITHER
Telephone:	2095820241
Owner Name:	CHARLES L. JONES
Owner Address:	528 ARIZONA AVE.
Owner City,St,Zip:	SANTA MONICA, CA 90403
Total Tanks:	0003
Tank Num:	001
Container Num:	480-2
Year Installed:	1964
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	.025
Leak Detection:	Stock Inventor, Sensor Instrument
Tank Num:	002
Container Num:	480-3
Year Installed:	1964
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	.025
Leak Detection:	Stock Inventor, Sensor Instrument
Tank Num:	003
Container Num:	480-4
Year Installed:	1964
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	.025
Leak Detection:	Stock Inventor, Sensor Instrument

EMI:

Name:	SELMA QUICK STOP
Address:	11946 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Year:	2002
County Code:	10
Air Basin:	SJV
Facility ID:	763
Air District Name:	SJU

BEACON STATION # 480 (Continued) **U001590831**

SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	SELMA QUICK STOP
Address:	11946 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Year:	2003
County Code:	10
Air Basin:	SJV
Facility ID:	763
Air District Name:	SJU
SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	SELMA QUICK STOP
Address:	11946 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Year:	2004
County Code:	10
Air Basin:	SJV
Facility ID:	763
Air District Name:	SJU
SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.5
Reactive Organic Gases Tons/Yr:	0.5022
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	SELMA QUICK STOP
Address:	11946 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Year:	2005
County Code:	10

BEACON STATION # 480 (Continued) **U001590831**

Air Basin:	SJV
Facility ID:	763
Air District Name:	SJU
SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.3585334538613680533
Reactive Organic Gases Tons/Yr:	.35663703964233413
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	SELMA QUICK STOP
Address:	11946 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Year:	2006
County Code:	10
Air Basin:	SJV
Facility ID:	763
Air District Name:	SJU
SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.3687429033312243989
Reactive Organic Gases Tons/Yr:	.36679248760986308
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	SELMA QUICK STOP
Address:	11946 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 933130000
Year:	2007
County Code:	10
Air Basin:	SJV
Facility ID:	763
Air District Name:	SJU
SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.3687429033312243989
Reactive Organic Gases Tons/Yr:	.36679248760986308
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	SELMA QUICK STOP
Address:	11946 S HIGHLAND AVE

BEACON STATION # 480 (Continued) **U001590831**

City,State,Zip:	SELMA, CA 93662
Year:	2008
County Code:	10
Air Basin:	SJV
Facility ID:	763
Air District Name:	SJU
SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.3388058351535764013
Reactive Organic Gases Tons/Yr:	.33696618658447238
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	SELMA QUICK STOP
Address:	11946 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Year:	2009
County Code:	10
Air Basin:	SJV
Facility ID:	763
Air District Name:	SJU
SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.33880583515357598
Reactive Organic Gases Tons/Yr:	0.33696618658447203
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	SELMA QUICK STOP
Address:	11946 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Year:	2010
County Code:	10
Air Basin:	SJV
Facility ID:	763
Air District Name:	SJU
SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.33878257249677401
Reactive Organic Gases Tons/Yr:	0.33694300999999999
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

BEACON STATION # 480 (Continued) **U001590831**

Name:	SELMA QUICK STOP
Address:	11946 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Year:	2011
County Code:	10
Air Basin:	SJV
Facility ID:	763
Air District Name:	SJU
SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.33880583515
Reactive Organic Gases Tons/Yr:	0.33696618658
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	SELMA QUICK STOP
Address:	11946 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Year:	2012
County Code:	10
Air Basin:	SJV
Facility ID:	763
Air District Name:	SJU
SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.33880583515
Reactive Organic Gases Tons/Yr:	0.33696618658
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	SELMA QUICK STOP
Address:	11946 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Year:	2013
County Code:	10
Air Basin:	SJV
Facility ID:	763
Air District Name:	SJU
SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY UNIFIED APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.33694301
Reactive Organic Gases Tons/Yr:	0.33694301
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0

BEACON STATION # 480 (Continued) **U001590831**

Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smllr Tons/Yr:0

CERS:

Name:	SELMA QUICK STOP
Address:	11946 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662-9051
Site ID:	493331
CERS ID:	110021335143
CERS Description:	US EPA Air Emission Inventory System (EIS)

B7 **JOSAN & JOSAN INC** **EDR Hist Auto** **1020399127**
SSW **12019 S HIGHLAND AVE** **N/A**
< 1/8 **SELMA, CA 93662**
0.075 mi.
397 ft. **Site 1 of 4 in cluster B**

Relative: **Lower**

Actual: **305 ft.**

EDR Hist Auto

Year:	Name:	Type:
1999	TOKUNAGA GEORGE S	Gasoline Service Stations
2000	TOKUNAGA GEORGE S	Gasoline Service Stations
2001	TOKUNAGA GEORGE S	Gasoline Service Stations
2002	TOKUNAGA GEORGE S	Gasoline Service Stations
2003	TOKUNAGA GEORGE S	Gasoline Service Stations
2004	JOSAN & JOSAN INC	Gasoline Service Stations
2005	JOSAN & JOSAN INC	Gasoline Service Stations
2006	JOSAN & JOSAN INC	Gasoline Service Stations
2007	JOSAN & JOSAN INC	Gasoline Service Stations
2008	JOSAN & JOSAN INC	Gasoline Service Stations
2009	JOSAN & JOSAN INC	Gasoline Service Stations
2010	JOSAN & JOSAN INC	Gasoline Service Stations
2011	JOSAN & JOSAN INC	Gasoline Service Stations
2012	JOSAN & JOSAN INC	Gasoline Service Stations
2013	JOSAN & JOSAN INC	Gasoline Service Stations
2014	JOSAN & JOSAN INC	Gasoline Service Stations

B8 **SELMA ARCO AM/PM** **CERS TANKS** **U003788757**
SSW **12019 S HIGHLAND AVE** **CUPA Listings** **N/A**
< 1/8 **SELMA, CA 93662** **CERS**
0.075 mi.
397 ft. **Site 2 of 4 in cluster B**

Relative: **Lower**

Actual: **305 ft.**

CERS TANKS:

Name:	SELMA ARCO AM/PM
Address:	12019 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Site ID:	429642
CERS ID:	10702645
CERS Description:	Underground Storage Tank

CUPA FRESNO:

Name:	SELMA ARCO AM/PM
Address:	12019 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662

SELMA ARCO AM/PM (Continued) **U003788757**

Region:	FRESNO
Cross Street:	NEBRASKA
Facility ID:	FA0273090
APM Number:	38507205
Program Element:	UST FACILITY WITH >3 TANKS

Name:	SELMA ARCO AM/PM
Address:	12019 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Region:	FRESNO
Cross Street:	NEBRASKA
Facility ID:	FA0273090
APM Number:	38507205
Program Element:	MV FUEL/OIL/PROPANE ONLY IN AGST/UST MODEL PL

CERS:

Name:	SELMA ARCO AM/PM
Address:	12019 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Site ID:	429642
CERS ID:	10702645
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	429642
Site Name:	SELMA ARCO AM/PM
Violation Date:	08-21-2013
Citation:	HSC 6.7 25284 - California Health and Safety Code, Chapter 6.7, Section(s) 25284
Violation Description:	Failure to obtain and maintain a valid operation permit from the CUPA.
Violation Notes:	Returned to compliance on 08/30/2014.
Violation Division:	Fresno County Department of Public Health
Violation Program:	UST
Violation Source:	CERS,

Site ID:	429642
Site Name:	SELMA ARCO AM/PM
Violation Date:	08-21-2013
Citation:	23 CCR 16 2711(a)(8) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2711(a)(8)
Violation Description:	Failure to submit as-built plans for the location and orientation of the tanks and appurtenant piping systems for new installations and/or with the permit application.
Violation Notes:	Returned to compliance on 08/30/2014.
Violation Division:	Fresno County Department of Public Health
Violation Program:	UST
Violation Source:	CERS,

Site ID:	429642
Site Name:	SELMA ARCO AM/PM
Violation Date:	08-07-2014
Citation:	Un-Specified
Violation Description:	UST Program - Release/Leaks/Spills - For use of Local Ordinance only.
Violation Notes:	Returned to compliance on 01/06/2015.
Violation Division:	Fresno County Department of Public Health
Violation Program:	UST
Violation Source:	CERS,

SELMA ARCO AM/PM (Continued) **U003788757**

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 04-15-2016
Citation: 23 CCR 16 2638 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2638
Violation Description: Failure to test leak detection equipment as required every 12 months (VPH, sensor, LLD, ATG, etc.) and/or submit monitoring system certification to the CUPA within 30 days of completion of the test
Violation Notes: Returned to compliance on 04/15/2016.
Violation Division: Fresno County Department of Public Health
Violation Program: UST
Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 08-07-2014
Citation: Un-Specified
Violation Description: UST Program - Administration/Documentation - For use of Local Ordinance only
Violation Notes: Returned to compliance on 08/30/2014.
Violation Division: Fresno County Department of Public Health
Violation Program: UST
Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 08-07-2014
Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Description: Failure to submit, obtain approval, or maintain a complete/accurate response plan.
Violation Notes: Returned to compliance on 08/30/2014.
Violation Division: Fresno County Department of Public Health
Violation Program: UST
Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 04-15-2016
Citation: HSC 6.7 25284 - California Health and Safety Code, Chapter 6.7, Section(s) 25284
Violation Description: Failure to obtain and maintain a valid operation permit from the CUPA.
Violation Notes: Returned to compliance on 05/16/2016.
Violation Division: Fresno County Department of Public Health
Violation Program: UST
Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 08-07-2014
Citation: 23 CCR 16 2711(a)(8) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2711(a)(8)
Violation Description: Failure to submit, obtain approval, or maintain a complete/accurate plot plan.
Violation Notes: Returned to compliance on 08/30/2014.
Violation Division: Fresno County Department of Public Health
Violation Program: UST

SELMA ARCO AM/PM (Continued) **U003788757**

Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 10-27-2016
Citation: HSC 6.7 25284 - California Health and Safety Code, Chapter 6.7, Section(s) 25284
Violation Description: Failure to obtain a valid permit to operate from the CUPA.
Violation Notes: Returned to compliance on 11/28/2016.
Violation Division: Fresno County Department of Public Health
Violation Program: UST
Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 04-15-2016
Citation: 23 CCR 16 2641(a) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(a)
Violation Description: Failure to maintain secondarily contained piping to allow liquid in the event of a leak to drain into sump (i.e. failure to remove test boot, pipe swelling).
Violation Notes: Returned to compliance on 01/25/2017.
Violation Division: Fresno County Department of Public Health
Violation Program: UST
Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 10-27-2016
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.
Violation Notes: Returned to compliance on 11/26/2016.
Violation Division: Fresno County Department of Public Health
Violation Program: HMRRP
Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 08-07-2014
Citation: HSC 6.7 25281.5(b)(2) - California Health and Safety Code, Chapter 6.7, Section(s) 25281.5(b)(2)
Violation Description: Failure to conduct daily inspection of the piping and maintain a log of inspection results for review by the CUPA.
Violation Notes: Returned to compliance on 01/06/2015.
Violation Division: Fresno County Department of Public Health
Violation Program: UST
Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 04-15-2016
Citation: 23 CCR 16 2637 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2637
Violation Description: Failure to comply with one or more of the following: conduct secondary

SELMA ARCO AM/PM (Continued) **U003788757**

containment testing, within six months of installation and every 36 months thereafter, conducted in accordance with proper practices, protocols, or test methods.
Violation Notes: Returned to compliance on 10/27/2016.
Violation Division: Fresno County Department of Public Health
Violation Program: UST
Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 08-07-2014
Citation: HSC 6.75 25299.30-25299.34 - California Health and Safety Code, Chapter 6.75, Section(s) 25299.30-25299.34
Violation Description: Failure to submit and maintain complete and current Certification of Financial Responsibility or other mechanism of financial assurance.
Violation Notes: Returned to compliance on 09/03/2014.
Violation Division: Fresno County Department of Public Health
Violation Program: UST
Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 10-27-2016
Citation: HSC 6.7 25284.2 - California Health and Safety Code, Chapter 6.7, Section(s) 25284.2
Violation Description: Failure to test the spill bucket annually.
Violation Notes: Returned to compliance on 10/27/2016.
Violation Division: Fresno County Department of Public Health
Violation Program: UST
Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 08-21-2013
Citation: HSC 6.7 25292.1(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25292.1(a)
Violation Description: Failure to operate the UST system to prevent spills and/or overfills.
Violation Notes: Returned to compliance on 01/06/2015. vacuum loss alarm on vent lines
Violation Division: Fresno County Department of Public Health
Violation Program: UST
Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 08-21-2013
Citation: HSC 6.7 Multiple Sections - California Health and Safety Code, Chapter 6.7, Section(s) Multiple Sections
Violation Description: UST Program - Release/Leaks/Spills - General
Violation Notes: Returned to compliance on 01/06/2015. diesel MLD failed
Violation Division: Fresno County Department of Public Health
Violation Program: UST
Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 08-21-2013
Citation: HSC 6.7 25281.5(b)(2) - California Health and Safety Code, Chapter

SELMA ARCO AM/PM (Continued) **U003788757**

6.7, Section(s) 25281.5(b)(2)
Violation Description: Failure to conduct daily inspection of the piping and maintain a log of inspection results for review by the CUPA.
Violation Notes: Returned to compliance on 01/06/2015.
Violation Division: Fresno County Department of Public Health
Violation Program: UST
Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 08-21-2013
Citation: HSC 6.95 25503.5(a) - California Health and Safety Code, Chapter 6.95, Section(s) 25503.5(a)
Violation Description: Owner/Operator failed to establish and implement a Hazardous Materials Business Plan when storing hazardous materials at or above the thresholds quantities of 55 gallons/500 lbs/200 cubic feet.
Violation Notes: Returned to compliance on 08/30/2014. Electronic submittal past due
Violation Division: Fresno County Department of Public Health
Violation Program: HMRRP
Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 04-15-2016
Citation: HSC 6.7 25291 - California Health and Safety Code, Chapter 6.7, Section(s) 25291
Violation Description: Failure to maintain under-dispenser containment, sumps, and/or other secondary containment in good condition and/or free of debris/liquid.
Violation Notes: Returned to compliance on 01/25/2017.
Violation Division: Fresno County Department of Public Health
Violation Program: UST
Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 08-07-2014
Citation: Un-Specified
Violation Description: UST Program - Release/Leaks/Spills - For use of Local Ordinance only.
Violation Notes: Returned to compliance on 01/06/2015. diesel
Violation Division: Fresno County Department of Public Health
Violation Program: UST
Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 08-21-2013
Citation: HSC 6.75 25299.30-25299.34 - California Health and Safety Code, Chapter 6.75, Section(s) 25299.30-25299.34
Violation Description: Failure to submit and maintain complete and current Certification of Financial Responsibility or other mechanism of financial assurance.
Violation Notes: Returned to compliance on 09/03/2014.
Violation Division: Fresno County Department of Public Health
Violation Program: UST
Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM

SELMA ARCO AM/PM (Continued) **U003788757**

Violation Date: 10-27-2016
Citation: 23 CCR 16 2637 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2637
Violation Description: Failure to conduct secondary containment testing, or one or more of the following requirements: Perform the test within six months of installation and every 36 months thereafter.Use a procedure that demonstrates the system works as well as at installation.Use applicable manufacturer guidelines, industry codes, engineering standard, or professional engineer approval.Performed by a certified service technician or a licensed tank tester.
Violation Notes: Returned to compliance on 10/27/2016.
Violation Division: Fresno County Department of Public Health
Violation Program: UST
Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 10-27-2016
Citation: 23 CCR 16 2715(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(i)
Violation Description: Failure to have a properly qualified service technician test leak detection equipment as required every 12 months (vapor, pressure, hydrostatic (VPH) system, sensors, line-leak detectors (LLD), automatic tank gauge (ATG), etc.).
Violation Notes: Returned to compliance on 10/27/2016.
Violation Division: Fresno County Department of Public Health
Violation Program: UST
Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 10-27-2016
Citation: 23 CCR 6.7 25284, 25286 - California Code of Regulations, Title 23, Chapter 6.7, Section(s) 25284, 25286
Violation Description: Failure to submit a complete and accurate application for a permit to operate a UST, or for renewal of the permit.
Violation Notes: Returned to compliance on 11/28/2016.
Violation Division: Fresno County Department of Public Health
Violation Program: UST
Violation Source: CERS,

Site ID: 429642
Site Name: SELMA ARCO AM/PM
Violation Date: 10-27-2016
Citation: HSC 6.75 25299.30-25299.34 - California Health and Safety Code, Chapter 6.75, Section(s) 25299.30-25299.34
Violation Description: Failure to submit and maintain complete and current Certification of Financial Responsibility or other mechanism of financial assurance.
Violation Notes: Returned to compliance on 11/28/2016.
Violation Division: Fresno County Department of Public Health
Violation Program: UST
Violation Source: CERS,

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 11-28-2017
Violations Found: No

SELMA ARCO AM/PM (Continued) **U003788757**

Eval Type:	Routine done by local agency
Eval Notes:	MC
Eval Division:	Fresno County Department of Public Health
Eval Program:	UST
Eval Source:	CERS,

Eval General Type:	Other/Unknown
Eval Date:	11-28-2017
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	UST training with M. Bains
Eval Division:	Fresno County Department of Public Health
Eval Program:	UST
Eval Source:	CERS,

Eval General Type:	Other/Unknown
Eval Date:	01-06-2015
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	RE-INSPECTION.
Eval Division:	Fresno County Department of Public Health
Eval Program:	UST
Eval Source:	CERS,

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-27-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Fresno County Department of Public Health
Eval Program:	HMRRP
Eval Source:	CERS,

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-15-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	MC
Eval Division:	Fresno County Department of Public Health
Eval Program:	UST
Eval Source:	CERS,

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	10-27-2016
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	MC, SB989
Eval Division:	Fresno County Department of Public Health
Eval Program:	UST
Eval Source:	CERS,

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-07-2014
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	MC
Eval Division:	Fresno County Department of Public Health

SELMA ARCO AM/PM (Continued) **U003788757**

Eval Program:	UST
Eval Source:	CERS,
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-21-2013
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	MC
Eval Division:	Fresno County Department of Public Health
Eval Program:	HMRRP
Eval Source:	CERS,
Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-21-2013
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	MC
Eval Division:	Fresno County Department of Public Health
Eval Program:	UST
Eval Source:	CERS,

Enforcement Action:

Site ID:	429642
Site Name:	SELMA ARCO AM/PM
Site Address:	12019 S HIGHLAND AVE
Site City:	SELMA
Site Zip:	93662
Enf Action Date:	10-10-2013
Enf Action Type:	Notice of Violation (Unified Program)
Enf Action Description:	Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:	Not reported
Enf Action Division:	Fresno County Department of Public Health
Enf Action Program:	UST
Enf Action Source:	CERS,

Coordinates:

Site ID:	429642
Facility Name:	SELMA ARCO AM/PM
Env Int Type Code:	HMBP
Program ID:	10702645
Coord Name:	Not reported
Ref Point Type Desc:	Entrance point of a facility or station,
Latitude:	36.561115
Longitude:	-119.629420

Affiliation:

Affiliation Type Desc:	Document Preparer
Entity Name:	Baldev Josan
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

SELMA ARCO AM/PM (Continued) **U003788757**

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	12019 S HIGHLAND AVENUE
Affiliation City:	SELMA
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93662
Affiliation Phone:	,

Affiliation Type Desc:	Legal Owner
Entity Name:	BALDEV JOSAN
Entity Title:	Not reported
Affiliation Address:	12019 S HIGHLAND AVENUE
Affiliation City:	SELMA
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	93662
Affiliation Phone:	(559) 352-7001,

Affiliation Type Desc:	CUPA District
Entity Name:	Fresno County Community Health Department
Entity Title:	Not reported
Affiliation Address:	1221 Fulton St., 3rd FloorP.O. Box 11867
Affiliation City:	Fresno
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93775
Affiliation Phone:	(559) 600-3271,

Affiliation Type Desc:	Identification Signer
Entity Name:	BALDEV JOSAN
Entity Title:	PRESIDENT/CEO
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

Affiliation Type Desc:	Parent Corporation
Entity Name:	SELMA ARCO AM/PM
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

Affiliation Type Desc:	Environmental Contact
Entity Name:	BALDEV JOSAN
Entity Title:	Not reported
Affiliation Address:	12019 S HIGHLAND AVE
Affiliation City:	SELMA
Affiliation State:	CA
Affiliation Country:	Not reported

SELMA ARCO AM/PM (Continued) **U003788757**

Affiliation Zip:	93662
Affiliation Phone:	,
Affiliation Type Desc:	Operator
Entity Name:	JOSAN & JOSAN INC.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(559) 352-7001,
Affiliation Type Desc:	Property Owner
Entity Name:	JOSAN & JOSAN INC.
Entity Title:	Not reported
Affiliation Address:	12019 S HIGHLAND AVE
Affiliation City:	SELMA
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	93662
Affiliation Phone:	(559) 352-7001,
Affiliation Type Desc:	UST Property Owner Name
Entity Name:	JOSAN & JOSAN INC.
Entity Title:	Not reported
Affiliation Address:	12019 S. Highland ave
Affiliation City:	Selma
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	93662
Affiliation Phone:	(559) 352-7001,
Affiliation Type Desc:	UST Tank Operator
Entity Name:	JOSAN & JOSAN INC.
Entity Title:	Not reported
Affiliation Address:	12019 South Highland Ave.
Affiliation City:	selma
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	93662
Affiliation Phone:	(559) 352-7001,
Affiliation Type Desc:	UST Tank Owner
Entity Name:	Josan & Josan
Entity Title:	Not reported
Affiliation Address:	12019 South Highland ave.
Affiliation City:	Selma
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	93662
Affiliation Phone:	(559) 352-7001,

B9
SSW
< 1/8
0.075 mi.
397 ft.

TOKUNAGA FARM
12019 S HIGHLAND AVE
SELMA, CA 93662

Site 3 of 4 in cluster B

SWEEPS UST
HIST UST
EMI
CERS

U001591123
N/A

Relative:
Lower

Actual:
305 ft.

SWEEPS UST:

Name:	TOKUNAGA FARM
Address:	12019 S HIGHLAND AVE
City:	SELMA
Status:	Active
Comp Number:	22572
Number:	9
Board Of Equalization:	Not reported
Referral Date:	07-01-85
Action Date:	Not reported
Created Date:	02-29-88
Owner Tank Id:	3
SWRCB Tank Id:	10-000-022572-000001
Tank Status:	A
Capacity:	300
Active Date:	07-01-85
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	3

Name:	TOKUNAGA FARM
Address:	12019 S HIGHLAND AVE
City:	SELMA
Status:	Active
Comp Number:	22572
Number:	9
Board Of Equalization:	Not reported
Referral Date:	07-01-85
Action Date:	Not reported
Created Date:	02-29-88
Owner Tank Id:	1
SWRCB Tank Id:	10-000-022572-000002
Tank Status:	A
Capacity:	300
Active Date:	07-01-85
Tank Use:	M.V. FUEL
STG:	P
Content:	LEADED
Number Of Tanks:	Not reported

Name:	TOKUNAGA FARM
Address:	12019 S HIGHLAND AVE
City:	SELMA
Status:	Active
Comp Number:	22572
Number:	9
Board Of Equalization:	Not reported
Referral Date:	07-01-85
Action Date:	Not reported
Created Date:	02-29-88
Owner Tank Id:	2
SWRCB Tank Id:	10-000-022572-000003

TOKUNAGA FARM (Continued) **U001591123**

Tank Status: A
Capacity: 500
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

HIST UST:
Name: TOKUNAGA FARM
Address: 12019 S HIGHLAND AV
City,State,Zip: SELMA, CA 93662
File Number: 00024269
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00024269.pdf
Region: STATE
Facility ID: 00000022572
Facility Type: Other
Other Type: FARM
Contact Name: OWNER
Telephone: 2098960949
Owner Name: GEORGE S. TOKUNAGA
Owner Address: 12019 S. HIGHLAND AV.
Owner City,St,Zip: SELMA, CA 93662
Total Tanks: 0003

Tank Num: 001
Container Num: 3
Year Installed: 1973
Tank Capacity: 00000300
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: 12
Leak Detection: None

Tank Num: 002
Container Num: 1
Year Installed: 1981
Tank Capacity: 00000300
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported
Leak Detection: None

Tank Num: 003
Container Num: 2
Year Installed: 1979
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: None

Click here for Geo Tracker PDF:

EMI:
Name: JOSAN & JOSAN INC DBA SELMA ARCO-AMPM

TOKUNAGA FARM (Continued) **U001591123**

Address:	12019 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Year:	2014
County Code:	10
Air Basin:	SJV
Facility ID:	3043
Air District Name:	SJU
SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.186953
Reactive Organic Gases Tons/Yr:	0.186953
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	JOSAN & JOSAN INC DBA SELMA ARCO-AMPM
Address:	12019 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Year:	2015
County Code:	10
Air Basin:	SJV
Facility ID:	3043
Air District Name:	SJU
SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.61428457
Reactive Organic Gases Tons/Yr:	1.61428457
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	JOSAN & JOSAN INC DBA SELMA ARCO-AMPM
Address:	12019 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Year:	2016
County Code:	10
Air Basin:	SJV
Facility ID:	3043
Air District Name:	SJU
SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.697003635
Reactive Organic Gases Tons/Yr:	1.697003635
Carbon Monoxide Emissions Tons/Yr:	Not reported
NOX - Oxides of Nitrogen Tons/Yr:	Not reported
SOX - Oxides of Sulphur Tons/Yr:	Not reported
Particulate Matter Tons/Yr:	Not reported

TOKUNAGA FARM (Continued) **U001591123**

Part. Matter 10 Micrometers and Smllr Tons/Yr:Not reported

Name:	JOSAN & JOSAN INC DBA SELMA ARCO-AMPM
Address:	12019 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Year:	2017
County Code:	10
Air Basin:	SJV
Facility ID:	3043
Air District Name:	SJU
SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.697003635
Reactive Organic Gases Tons/Yr:	1.493637199
Carbon Monoxide Emissions Tons/Yr:	Not reported
NOX - Oxides of Nitrogen Tons/Yr:	Not reported
SOX - Oxides of Sulphur Tons/Yr:	Not reported
Particulate Matter Tons/Yr:	Not reported
Part. Matter 10 Micrometers and Smllr Tons/Yr:	Not reported

Name:	JOSAN & JOSAN INC DBA SELMA ARCO-AMPM
Address:	12019 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Year:	2018
County Code:	10
Air Basin:	SJV
Facility ID:	3043
Air District Name:	SJU
SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.493637199
Reactive Organic Gases Tons/Yr:	1.493637199
Carbon Monoxide Emissions Tons/Yr:	Not reported
NOX - Oxides of Nitrogen Tons/Yr:	Not reported
SOX - Oxides of Sulphur Tons/Yr:	Not reported
Particulate Matter Tons/Yr:	Not reported
Part. Matter 10 Micrometers and Smllr Tons/Yr:	Not reported

Name:	JOSAN & JOSAN INC DBA SELMA ARCO-AMPM
Address:	12019 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Year:	2019
County Code:	10
Air Basin:	SJV
Facility ID:	3043
Air District Name:	SJU
SIC Code:	5541
Air District Name:	SAN JOAQUIN VALLEY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.493637199
Reactive Organic Gases Tons/Yr:	1.493637199
Carbon Monoxide Emissions Tons/Yr:	Not reported

TOKUNAGA FARM (Continued) **U001591123**

NOX - Oxides of Nitrogen Tons/Yr: Not reported
SOX - Oxides of Sulphur Tons/Yr: Not reported
Particulate Matter Tons/Yr: Not reported
Part. Matter 10 Micrometers and Smllr Tons/Yr: Not reported

CERS:
Name: JOSAN & JOSAN INC DBA SELMA ARCO-AMPM
Address: 12019 S HIGHLAND AVE
City,State,Zip: SELMA, CA 93662-9003
Site ID: 475023
CERS ID: 110038072448
CERS Description: US EPA Air Emission Inventory System (EIS)

B10
SSW
< 1/8
0.075 mi.
397 ft.

SELMA ARCO AM/PM **UST** **U004275540**
12019 S HIGHLAND AVE **N/A**
SELMA, CA 93662

Site 4 of 4 in cluster B

Relative:
Lower

Actual:
305 ft.

UST:
Name: SELMA ARCO AM/PM
Address: 12019 S HIGHLAND AVE
City,State,Zip: SELMA, CA 93662
Facility ID: FA0273090
Permitting Agency: 7000
CERSID: 10702645
Latitude: 36.5611147
Longitude: -119.6294267

Name: SELMA ARCO AM/PM
Address: 12019 S HIGHLAND AVE
City,State,Zip: SELMA, CA 93662
Facility ID: Not reported
Permitting Agency: 7000
CERSID: Not reported
Latitude: 36.56094
Longitude: -119.62928

11
SE
1/8-1/4
0.139 mi.
732 ft.

CALIFORNIA WATER SERVICE CO #12-01 **CUPA Listings** **S108225985**
1972 N MITCHELL ST **N/A**
SELMA, CA 93662

Relative:
Lower

Actual:
299 ft.

CUPA FRESNO:
Name: CALIFORNIA WATER SERVICE CO #12-01
Address: 1972 N MITCHELL ST
City,State,Zip: SELMA, CA 93662
Region: FRESNO
Cross Street: Not reported
Facility ID: FA0278795
APM Number: 39003035
Program Element: HAZ MAT DISCLOSURE/CLOSED SITE

12 NNW 1/8-1/4 0.239 mi. 1263 ft. | **HOPE TRANSPORT INC**
3007 ROSE AVE
SELMA, CA 93662 | **CUPA Listings** | **S110816119**
N/A

Relative: Higher
Actual: 308 ft.

CUPA FRESNO:

Name:	HOPE TRANSPORT INC
Address:	3007 ROSE AVE
City,State,Zip:	SELMA, CA 93662
Region:	FRESNO
Cross Street:	Not reported
Facility ID:	FA0281934
APM Number:	38522021
Program Element:	WASTE TIRE FACILITY

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13 ESE 1/4-1/2 0.356 mi. 1878 ft. | **QUIROZ RECYCLING**
2507 NEBRASKA AVE
SELMA, CA 93662 | **SWRCY** | **S126254803**
N/A

Relative: Lower
Actual: 305 ft.

SWRCY:

Name:	QUIROZ RECYCLING
Address:	2507 NEBRASKA AVE
City,State,Zip:	SELMA, CA 93662
Reg Id:	Not reported
Cert Id:	RC296074.001
Mailing Address:	2443 Valley View St
Mailing City:	Selma
Mailing State:	CA
Mailing Zip Code:	93662
Website:	Not reported
Email:	Not reported
Phone Number:	(559) 856-4892
Rural:	Y
Operation Begin Date:	05/20/2020
Aluminium:	Not reported
Glass:	Not reported
Plastic:	Not reported
Bimetal:	Not reported
Hours of Operation:	Mon - Wed 9:00 am - 5:00 pm; Thr Closed; Fri - Sun 9:00 am - 5:00 pm
Organization ID:	Not reported
Organization Name:	Quiroz Recycling

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14 SSW 1/4-1/2 0.413 mi. 2182 ft. | **HIGHLAND DISPOSAL**
12319 S HIGHLAND AVE
SELMA, CA 93662 | **SWF/LF**
CDL
CERS | **S107527799**
N/A

Relative: Lower
Actual: 288 ft.

SWF/LF (SWIS):

Name:	HIGHLAND DISPOSAL
Address:	12319 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Region:	STATE
Facility ID:	10-CR-0046
SWIS Number:	10-CR-0046

HIGHLAND DISPOSAL (Continued) **S107527799**

Point of Contact:	Abel Martinez-Centeno
Is Archived:	No
Is Closed Illegal Abandoned:	Yes
Is Site Inert Debris Engineered Fill:	No
Is Financial Assurances Responsible:	No
Absorbed On:	Not reported
Operational Status:	Closed
Absorbed By:	Not reported
Closed Illegal Abandoned Category:	C2
EPA Federal Registry ID:	Not reported
ARB District:	San Joaquin Valley Unified
SWRCB Region:	Central Valley
Local Government:	Selma
Reporting Agency Legal Name:	County of Fresno
Reporting Agency Department:	Department of Public Health, Environmental Health Division
Enforcing Agency Legal Name:	County of Fresno
Enforcing Agency Department:	Department of Public Health, Environmental Health Division
Regulation Status:	Pre-regulation

Activity:

SWIS Number:	10-CR-0046
Site Name:	Highland Disposal
Activity:	Solid Waste Disposal Site
Activity Is Archived:	No
Category:	Disposal
Activity Classification:	Solid Waste Disposal Site
WDR Number:	Not reported
WDR Landfill Class:	Not reported
Cease Operation:	Not reported
Cease Operation Type:	Not reported
Inspection Frequency:	Quarterly
Throughput:	Not reported
Throughput Units:	Not reported
Remaining Capacity:	Not reported
Remaining Capacity Date:	Not reported
Capacity:	Not reported
Capacity Units:	Not reported
Total Acreage:	0
Disposal Acreage:	0
Permitted Elevation:	Not reported
Permitted Elevation Type:	Not reported
Permitted Depth:	Not reported
Permitted Depth Type:	Not reported
Point of Contact:	Abel Martinez-Centeno
Site Operational Status:	Closed
Site Regulatory Status:	Pre-regulation
Site Is Archived:	No
Is Closed Illegal Abandoned:	Yes
Is Site Inert Debris Engineered Fill:	No
Is Financial Assurances Responsible:	No
Absorbed On:	Not reported
Absorbed By:	Not reported
Closed Illegal Abandoned Category:	C2
EPA Federal Registry ID:	Not reported
County:	Fresno
ARB District:	San Joaquin Valley Unified
SWRCB Region:	Central Valley
Local Government:	Selma

HIGHLAND DISPOSAL (Continued) **S107527799**

Street Address:	12319 S Highland Ave
City:	Selma
State:	CA
ZIP Code:	93662
Reporting Agency Legal Name:	County of Fresno
Reporting Agency Department:	Department of Public Health, Environmental Health Division
Enforcing Agency Legal Name:	County of Fresno
Enforcing Agency Department:	Department of Public Health, Environmental Health Division

Operator:

SWIS Number:	10-CR-0046
Site Name:	Highland Disposal
Site Operational Status:	Closed
Site Type:	Disposal Only
Site Regulatory Status:	Pre-regulation
Latitude:	36.55662
Longitude:	-119.63109
Is Archived:	No
Operator:	Aguirre R&D
Started On:	Not reported
Contact Name:	Ruben & Darlene Aguirre
Contact Title:	Owner/Operator
Contact Email:	Not reported
Contact Phone:	(896) 214-2145
Street Address:	12319 S Highland Ave
Operator City:	Selma
Operator State:	CA
Operator Zip:	93662

Owner:

SWIS Number:	10-CR-0046
Owner:	Aguirre R&D
Owner Address:	12319 S Highland Ave
Owner City:	Selma
Owner State:	CA
Owner Zip:	93662
Site Name:	Highland Disposal
Site Operational Status:	Closed
Site Type:	Disposal Only
Site Regulatory Status:	Pre-regulation
Latitude:	36.55662
Longitude:	-119.63109
Is Archived:	No
Started On:	Not reported
Contact Name:	Ruben & Darlene Aguirre
Contact Title:	Owner/Operator
Contact Email:	Not reported
Contact Phone:	(896) 214-2145

CDL:

Name:	Not reported
Address:	12319 S HIGHLAND AVE
City,State,Zip:	SELMA, CA 93662
Facility ID:	2005-07-010
Date:	07/07/2005

HIGHLAND DISPOSAL (Continued) **S107527799**

Labtype: Illegal Drug lab
Lab Type: Illegal Drug Lab (L) - location where an illegal drug lab was operated or drug lab equipment and/or materials were stored.

CERS:
Name: HIGHLAND / SAGINAW AVE DISPOSAL SITE
Address: 12319 S HIGHLAND AVE
City,State,Zip: SELMA, CA 93662
Site ID: 472348
CERS ID: 110013993232
CERS Description: US EPA Air Emission Inventory System (EIS)

C15 **WELL 19-01 - RAW** **PFAS** **S127521210**
ENE **N/A**
1/4-1/2 **SAN JOSE, CA**
0.481 mi.
2541 ft. **Site 1 of 3 in cluster C**

Relative:
Higher

Actual:
308 ft.

PFAS:
Name: WELL 19-01 - RAW
Address: Not reported
City,State,Zip: SAN JOSE, CA
Envirostor ID: Not reported
Program Type: Not reported
Status: Not reported
Status Date: Not reported
Enviroscreen Score: Not reported
Site Code: Not reported
Global ID: W0601010024
Facility Region: Not reported
Lead Agency: Not reported
Case worker: Not reported
Local Agency: Not reported
Location Case Number: Not reported
File Location: Not reported
Potential Contaminants of Concern: Not reported
Potential Media Affected: Not reported
Site History: Not reported

Begin Date: Not reported
RB Case Number: Not reported
source_type: All PFAS Chemicals
Location ID: 1010024-022
Matrix: Liquid
Chemical: PFOS
Qualifier: <
Value: 3
Reporting Limit: Not reported
Detection Limit: Not reported
Lab Notes: Not reported
Quarterly Running Annual Average: Not reported
Units: NG/L
Date: 4/7/2020
Field Pt Class: PUBW
Site Use: Drinking Water Wells
Site Type: DDW Well
Latitude: 36.56712

WELL 19-01 - RAW (Continued) **S127521210**

Longitude:	-119.618089
Geo Tracker URL:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=W0601010024

Name:	WELL 19-01 - RAW
Address:	Not reported
City,State,Zip:	SAN JOSE, CA
Envirostor ID:	Not reported
Program Type:	Not reported
Status:	Not reported
Status Date:	Not reported
Enviroscreen Score:	Not reported
Site Code:	Not reported
Global ID:	W0601010024
Facility Region:	Not reported
Lead Agency:	Not reported
Case worker:	Not reported
Local Agency:	Not reported
Location Case Number:	Not reported
File Location:	Not reported
Potential Contaminants of Concern:	Not reported
Potential Media Affected:	Not reported
Site History:	Not reported

Begin Date:	Not reported
RB Case Number:	Not reported
source_type:	All PFAS Chemicals
Location ID:	1010024-022
Matrix:	Liquid
Chemical:	PFOA
Qualifier:	<
Value:	3
Reporting Limit:	Not reported
Detection Limit:	Not reported
Lab Notes:	Not reported
Quarterly Running Annual Average:	Not reported
Units:	NG/L
Date:	4/7/2020
Field Pt Class:	PUBW
Site Use:	Drinking Water Wells
Site Type:	DDW Well
Latitude:	36.56712
Longitude:	-119.618089
Geo Tracker URL:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=W0601010024

Name:	WELL 19-01 - RAW
Address:	Not reported
City,State,Zip:	SAN JOSE, CA
Envirostor ID:	Not reported
Program Type:	Not reported
Status:	Not reported
Status Date:	Not reported
Enviroscreen Score:	Not reported
Site Code:	Not reported
Global ID:	W0601010024
Facility Region:	Not reported
Lead Agency:	Not reported
Case worker:	Not reported

WELL 19-01 - RAW (Continued) **S127521210**

Local Agency:	Not reported
Location Case Number:	Not reported
File Location:	Not reported
Potential Contaminants of Concern:	Not reported
Potential Media Affected:	Not reported
Site History:	Not reported
Begin Date:	Not reported
RB Case Number:	Not reported
source_type:	All PFAS Chemicals
Location ID:	1010024-022
Matrix:	Liquid
Chemical:	PFBSA
Qualifier:	<
Value:	3
Reporting Limit:	Not reported
Detection Limit:	Not reported
Lab Notes:	Not reported
Quarterly Running Annual Average:	Not reported
Units:	NG/L
Date:	4/7/2020
Field Pt Class:	PUBW
Site Use:	Drinking Water Wells
Site Type:	DDW Well
Latitude:	36.56712
Longitude:	-119.618089
Geo Tracker URL:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=W0601010024
Name:	WELL 19-01 - RAW
Address:	Not reported
City,State,Zip:	SAN JOSE, CA
Envirostor ID:	Not reported
Program Type:	Not reported
Status:	Not reported
Status Date:	Not reported
Enviroscreen Score:	Not reported
Site Code:	Not reported
Global ID:	W0601010024
Facility Region:	Not reported
Lead Agency:	Not reported
Case worker:	Not reported
Local Agency:	Not reported
Location Case Number:	Not reported
File Location:	Not reported
Potential Contaminants of Concern:	Not reported
Potential Media Affected:	Not reported
Site History:	Not reported
Begin Date:	Not reported
RB Case Number:	Not reported
source_type:	All PFAS Chemicals
Location ID:	1010024-022
Matrix:	Liquid
Chemical:	PFNA
Qualifier:	<
Value:	3
Reporting Limit:	Not reported

WELL 19-01 - RAW (Continued) **S127521210**

Detection Limit:	Not reported
Lab Notes:	Not reported
Quarterly Running Annual Average:	Not reported
Units:	NG/L
Date:	4/7/2020
Field Pt Class:	PUBW
Site Use:	Drinking Water Wells
Site Type:	DDW Well
Latitude:	36.56712
Longitude:	-119.618089
Geo Tracker URL:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=W0601010024

Name:	WELL 19-01 - RAW
Address:	Not reported
City,State,Zip:	SAN JOSE, CA
Envirostor ID:	Not reported
Program Type:	Not reported
Status:	Not reported
Status Date:	Not reported
Enviroscreen Score:	Not reported
Site Code:	Not reported
Global ID:	W0601010024
Facility Region:	Not reported
Lead Agency:	Not reported
Case worker:	Not reported
Local Agency:	Not reported
Location Case Number:	Not reported
File Location:	Not reported
Potential Contaminants of Concern:	Not reported
Potential Media Affected:	Not reported
Site History:	Not reported

Begin Date:	Not reported
RB Case Number:	Not reported
source_type:	All PFAS Chemicals
Location ID:	1010024-022
Matrix:	Liquid
Chemical:	NETFOSAA
Qualifier:	<
Value:	3
Reporting Limit:	Not reported
Detection Limit:	Not reported
Lab Notes:	Not reported
Quarterly Running Annual Average:	Not reported
Units:	NG/L
Date:	4/7/2020
Field Pt Class:	PUBW
Site Use:	Drinking Water Wells
Site Type:	DDW Well
Latitude:	36.56712
Longitude:	-119.618089
Geo Tracker URL:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=W0601010024

Name:	WELL 19-01 - RAW
Address:	Not reported
City,State,Zip:	SAN JOSE, CA
Envirostor ID:	Not reported

WELL 19-01 - RAW (Continued) **S127521210**

Program Type:	Not reported
Status:	Not reported
Status Date:	Not reported
Enviroscreen Score:	Not reported
Site Code:	Not reported
Global ID:	W0601010024
Facility Region:	Not reported
Lead Agency:	Not reported
Case worker:	Not reported
Local Agency:	Not reported
Location Case Number:	Not reported
File Location:	Not reported
Potential Contaminants of Concern:	Not reported
Potential Media Affected:	Not reported
Site History:	Not reported

Begin Date:	Not reported
RB Case Number:	Not reported
source_type:	All PFAS Chemicals
Location ID:	1010024-022
Matrix:	Liquid
Chemical:	NMEFOSAA
Qualifier:	<
Value:	3
Reporting Limit:	Not reported
Detection Limit:	Not reported
Lab Notes:	Not reported
Quarterly Running Annual Average:	Not reported
Units:	NG/L
Date:	4/7/2020
Field Pt Class:	PUBW
Site Use:	Drinking Water Wells
Site Type:	DDW Well
Latitude:	36.56712
Longitude:	-119.618089
Geo Tracker URL:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=W0601010024

Name:	WELL 19-01 - RAW
Address:	Not reported
City,State,Zip:	SAN JOSE, CA
Envirostor ID:	Not reported
Program Type:	Not reported
Status:	Not reported
Status Date:	Not reported
Enviroscreen Score:	Not reported
Site Code:	Not reported
Global ID:	W0601010024
Facility Region:	Not reported
Lead Agency:	Not reported
Case worker:	Not reported
Local Agency:	Not reported
Location Case Number:	Not reported
File Location:	Not reported
Potential Contaminants of Concern:	Not reported
Potential Media Affected:	Not reported
Site History:	Not reported

WELL 19-01 - RAW (Continued) **S127521210**

Begin Date:	Not reported
RB Case Number:	Not reported
source_type:	All PFAS Chemicals
Location ID:	1010024-022
Matrix:	Liquid
Chemical:	PFHPA
Qualifier:	<
Value:	3
Reporting Limit:	Not reported
Detection Limit:	Not reported
Lab Notes:	Not reported
Quarterly Running Annual Average:	Not reported
Units:	NG/L
Date:	4/7/2020
Field Pt Class:	PUBW
Site Use:	Drinking Water Wells
Site Type:	DDW Well
Latitude:	36.56712
Longitude:	-119.618089
Geo Tracker URL:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=W0601010024

Name:	WELL 19-01 - RAW
Address:	Not reported
City,State,Zip:	SAN JOSE, CA
Envirostor ID:	Not reported
Program Type:	Not reported
Status:	Not reported
Status Date:	Not reported
Enviroscreen Score:	Not reported
Site Code:	Not reported
Global ID:	W0601010024
Facility Region:	Not reported
Lead Agency:	Not reported
Case worker:	Not reported
Local Agency:	Not reported
Location Case Number:	Not reported
File Location:	Not reported
Potential Contaminants of Concern:	Not reported
Potential Media Affected:	Not reported
Site History:	Not reported

Begin Date:	Not reported
RB Case Number:	Not reported
source_type:	All PFAS Chemicals
Location ID:	1010024-022
Matrix:	Liquid
Chemical:	PFHXSA
Qualifier:	<
Value:	3
Reporting Limit:	Not reported
Detection Limit:	Not reported
Lab Notes:	Not reported
Quarterly Running Annual Average:	Not reported
Units:	NG/L
Date:	4/7/2020
Field Pt Class:	PUBW
Site Use:	Drinking Water Wells

WELL 19-01 - RAW (Continued) **S127521210**

Site Type:	DDW Well
Latitude:	36.56712
Longitude:	-119.618089
Geo Tracker URL:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=W0601010024

Name:	WELL 19-01 - RAW
Address:	Not reported
City,State,Zip:	SAN JOSE, CA
Envirostor ID:	Not reported
Program Type:	Not reported
Status:	Not reported
Status Date:	Not reported
Enviroscreen Score:	Not reported
Site Code:	Not reported
Global ID:	W0601010024
Facility Region:	Not reported
Lead Agency:	Not reported
Case worker:	Not reported
Local Agency:	Not reported
Location Case Number:	Not reported
File Location:	Not reported
Potential Contaminants of Concern:	Not reported
Potential Media Affected:	Not reported
Site History:	Not reported

Begin Date:	Not reported
RB Case Number:	Not reported
source_type:	All PFAS Chemicals
Location ID:	1010024-022
Matrix:	Liquid
Chemical:	PFNDCA
Qualifier:	<
Value:	3
Reporting Limit:	Not reported
Detection Limit:	Not reported
Lab Notes:	Not reported
Quarterly Running Annual Average:	Not reported
Units:	NG/L
Date:	4/7/2020
Field Pt Class:	PUBW
Site Use:	Drinking Water Wells
Site Type:	DDW Well
Latitude:	36.56712
Longitude:	-119.618089
Geo Tracker URL:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=W0601010024

Name:	WELL 19-01 - RAW
Address:	Not reported
City,State,Zip:	SAN JOSE, CA
Envirostor ID:	Not reported
Program Type:	Not reported
Status:	Not reported
Status Date:	Not reported
Enviroscreen Score:	Not reported
Site Code:	Not reported
Global ID:	W0601010024
Facility Region:	Not reported

WELL 19-01 - RAW (Continued) **S127521210**

Lead Agency:	Not reported
Case worker:	Not reported
Local Agency:	Not reported
Location Case Number:	Not reported
File Location:	Not reported
Potential Contaminants of Concern:	Not reported
Potential Media Affected:	Not reported
Site History:	Not reported

Begin Date:	Not reported
RB Case Number:	Not reported
source_type:	All PFAS Chemicals
Location ID:	1010024-022
Matrix:	Liquid
Chemical:	PFDOA
Qualifier:	<
Value:	3
Reporting Limit:	Not reported
Detection Limit:	Not reported
Lab Notes:	Not reported
Quarterly Running Annual Average:	Not reported
Units:	NG/L
Date:	4/7/2020
Field Pt Class:	PUBW
Site Use:	Drinking Water Wells
Site Type:	DDW Well
Latitude:	36.56712
Longitude:	-119.618089
Geo Tracker URL:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=W0601010024

Name:	WELL 19-01 - RAW
Address:	Not reported
City,State,Zip:	SAN JOSE, CA
Envirostor ID:	Not reported
Program Type:	Not reported
Status:	Not reported
Status Date:	Not reported
Enviroscreen Score:	Not reported
Site Code:	Not reported
Global ID:	W0601010024
Facility Region:	Not reported
Lead Agency:	Not reported
Case worker:	Not reported
Local Agency:	Not reported
Location Case Number:	Not reported
File Location:	Not reported
Potential Contaminants of Concern:	Not reported
Potential Media Affected:	Not reported
Site History:	Not reported

Begin Date:	Not reported
RB Case Number:	Not reported
source_type:	All PFAS Chemicals
Location ID:	1010024-022
Matrix:	Liquid
Chemical:	PFHA
Qualifier:	<

WELL 19-01 - RAW (Continued) **S127521210**

Value:	3
Reporting Limit:	Not reported
Detection Limit:	Not reported
Lab Notes:	Not reported
Quarterly Running Annual Average:	Not reported
Units:	NG/L
Date:	4/7/2020
Field Pt Class:	PUBW
Site Use:	Drinking Water Wells
Site Type:	DDW Well
Latitude:	36.56712
Longitude:	-119.618089
Geo Tracker URL:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=W0601010024

Click this hyperlink while viewing on your computer to access
8 additional CA PFAS: record(s) in the EDR Site Report.

C16 **PG AND E MANUFACTURED GAS PLANT SQ-FK-SEL** **EDR MGP** **1008407779**
ENE **BLOCK OF NORTH,SHERMAN,SYLVIA AND YOUNGS STREETS** **N/A**
1/2-1 **SELMA, CA 93662**
0.516 mi.
2727 ft. **Site 2 of 3 in cluster C**

Relative: Higher
Actual: 308 ft.

Manufactured Gas Plants:
No additional information available

C17 **PG&E MANUFACTURED GAS PLANT SQ-FK-SEL** **ENVIROSTOR** **S101480250**
ENE **BLOCK: NORTH,SHERMAN,SYLVIA,YOUNG STREET** **VCP** **N/A**
1/2-1 **SELMA, CA 93662** **HIST Cal-Sites**
0.518 mi.
2736 ft. **Site 3 of 3 in cluster C**

Relative: Higher
Actual: 308 ft.

ENVIROSTOR:

Name:	PG&E MANUFACTURED GAS PLANT SQ-FK-SEL
Address:	BLOCK: NORTH,SHERMAN,SYLVIA,YOUNG STREET
City,State,Zip:	SELMA, CA 93662
Facility ID:	10490093
Status:	Certified
Status Date:	12/20/2013
Site Code:	100302
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	2.94
NPL:	NO
Regulatory Agencies:	SMBRP, RWQCB 5F - Central Valley, FRESNO COUNTY
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Kevin Shaddy
Division Branch:	Cleanup San Joaquin
Assembly:	31
Senate:	14
Special Program:	Voluntary Cleanup Program
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED

PG&E MANUFACTURED GAS PLANT SQ-FK-SEL (Continued) **S101480250**

Funding: Responsible Party
Latitude: 36.56766
Longitude: -119.6176
APN: NONE SPECIFIED
Past Use: MANUFACTURED GAS PLANT
Potential COC: * HALOGENATED SOLVENTS * CONTAMINATED SOIL Lead Polychlorinated biphenyls (PCBs Polynuclear aromatic hydrocarbons (PAHs TPH-diesel TPH-gas TPH-MOTOR OIL
Confirmed COC: Lead 10003-NO Polynuclear aromatic hydrocarbons (PAHs TPH-diesel 30025-NO TPH-MOTOR OIL * CONTAMINATED SOIL Polychlorinated biphenyls (PCBs
Potential Description: OTH, SOIL, SV
Alias Name: PACIFIC GAS & ELECTRIC MFG GAS PLANT
Alias Type: Alternate Name
Alias Name: PG&E
Alias Type: Alternate Name
Alias Name: 110033611018
Alias Type: EPA (FRS #)
Alias Name: SLT5FT544529
Alias Type: GeoTracker Global ID
Alias Name: 100302
Alias Type: Project Code (Site Code)
Alias Name: 10490093
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 02/09/1987
Comments: FACILITY IDENTIFIED BY PG&E SAMPLE RESULTS. RP CONDUCTED PA, REPORT TO DHS. NO SOIL SAMPLES COLLECTED. NO PNA OR LEAD DETECTED IN WELL ONSITE. SITE SCREENING DONE. NO CLEANUP DOCUMENTED.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Standard Voluntary Agreement
Completed Date: 01/10/2008
Comments: VCA was finalized and signed by DTSC on 1/10/2008.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 06/30/2011
Comments: RAW approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 01/21/2011
Comments: Final Fact Sheet approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 01/07/2011
Comments: Final Public Notice approved.

PG&E MANUFACTURED GAS PLANT SQ-FK-SEL (Continued) **S101480250**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 05/05/1987
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 02/02/1987
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 03/06/1992
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 06/28/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 11/21/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Soils Management Plan
Completed Date: 12/20/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/18/1992
Comments: The site is currently used as a service center. The first manufactured gas plant was built on this site in 1889. Gas was manufactured until approximately 1930. PEA sampling detected PNAs in all 10 soil samples and all 4 groundwater samples. The analyses revealed PNA's from .001 - 69.8 parts per million (ppm); motor oil from 53-18,000 ppm; antimony 11.3-20.8 ppm; lead .77-135 ppm; silver ND-7.5 ppm; zinc 13.1-171 ppm. Total PNA's of .87- 1.84 ug/l were detected in the shallow ground water. Further action to investigate the ground water contamination (a public supply well is on site) and to determine the extent of soil contamination is required.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 12/22/2009
Comments: RI Report Approved. FS and HHRA will be incorporated into remedy selection document (anticipated to be a RAW).

PG&E MANUFACTURED GAS PLANT SQ-FK-SEL (Continued) **S101480250**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Investigation Workplan
Completed Date:	04/11/2008
Comments:	DTSC approved supplemental RI workplan.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Public Participation Plan / Community Relations Plan
Completed Date:	03/01/2009
Comments:	Public Participation Plan Approved

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Certification
Completed Date:	12/20/2013
Comments:	Cerification signed.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	CEQA - Notice of Exemption
Completed Date:	06/30/2011
Comments:	Not reported

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

VCP:

Name:	PG&E MANUFACTURED GAS PLANT SQ-FK-SEL
Address:	BLOCK: NORTH,SHERMAN,SYLVIA,YOUNG STREET
City,State,Zip:	SELMA, CA 93662
Facility ID:	10490093
Site Type:	Voluntary Cleanup
Site Type Detail:	Voluntary Cleanup
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	2.94
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP, RWQCB 5F - Central Valley, FRESNO COUNTY
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Kevin Shaddy
Division Branch:	Cleanup San Joaquin
Site Code:	100302
Assembly:	31
Senate:	14
Special Programs Code:	Voluntary Cleanup Program
Status:	Certified
Status Date:	12/20/2013
Restricted Use:	NO

PG&E MANUFACTURED GAS PLANT SQ-FK-SEL (Continued) **S101480250**

Funding:	Responsible Party
Lat/Long:	36.56766 / -119.6176
APN:	NONE SPECIFIED
Past Use:	MANUFACTURED GAS PLANT
Potential COC:	10003, 10097, 30013, 30018, 30019, 30024, 30025, 3002502
Confirmed COC:	30013,10003-NO,30019,30024,30025-NO,3002502,10097,30018
Potential Description:	OTH, SOIL, SV
Alias Name:	PACIFIC GAS & ELECTRIC MFG GAS PLANT
Alias Type:	Alternate Name
Alias Name:	PG&E
Alias Type:	Alternate Name
Alias Name:	110033611018
Alias Type:	EPA (FRS #)
Alias Name:	SLT5FT544529
Alias Type:	GeoTracker Global ID
Alias Name:	100302
Alias Type:	Project Code (Site Code)
Alias Name:	10490093
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Discovery
Completed Date:	02/09/1987
Comments:	FACILITY IDENTIFIED BY PG&E SAMPLE RESULTS. RP CONDUCTED PA, REPORT TO DHS. NO SOIL SAMPLES COLLECTED. NO PNA OR LEAD DETECTED IN WELL ONSITE. SITE SCREENING DONE. NO CLEANUP DOCUMENTED.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Standard Voluntary Agreement
Completed Date:	01/10/2008
Comments:	VCA was finalized and signed by DTSC on 1/10/2008.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Workplan
Completed Date:	06/30/2011
Comments:	RAW approved.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Fact Sheets
Completed Date:	01/21/2011
Comments:	Final Fact Sheet approved.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Public Notice
Completed Date:	01/07/2011
Comments:	Final Public Notice approved.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Assessment Report
Completed Date:	05/05/1987
Comments:	Not reported

PG&E MANUFACTURED GAS PLANT SQ-FK-SEL (Continued) **S101480250**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 02/02/1987
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 03/06/1992
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 06/28/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 11/21/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Soils Management Plan
Completed Date: 12/20/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/18/1992
Comments: The site is currently used as a service center. The first manufactured gas plant was built on this site in 1889. Gas was manufactured until approximately 1930. PEA sampling detected PNAs in all 10 soil samples and all 4 groundwater samples. The analyses revealed PNA's from .001 - 69.8 parts per million (ppm); motor oil from 53-18,000 ppm; antimony 11.3-20.8 ppm; lead .77-135 ppm; silver ND-7.5 ppm; zinc 13.1-171 ppm. Total PNA's of .87- 1.84 ug/l were detected in the shallow ground water. Further action to investigate the ground water contamination (a public supply well is on site) and to determine the extent of soil contamination is required.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 12/22/2009
Comments: RI Report Approved. FS and HHRA will be incorporated into remedy selection document (anticipated to be a RAW).

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 04/11/2008
Comments: DTSC approved supplemental RI workplan.

PG&E MANUFACTURED GAS PLANT SQ-FK-SEL (Continued) **S101480250**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 03/01/2009
Comments: Public Participation Plan Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 12/20/2013
Comments: Cerification signed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 06/30/2011
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Calsite:
Name: PG&E MANUFACTURED GAS PLANT SQ-FK-SEL
Address: BLOCK: NORTH,SHERMAN,SYLVIA,YOUNG STREET
City: SELMA
Region: SACRAMENTO
Facility ID: 10490093
Facility Type: RP
Type: RESPONSIBLE PARTY
Branch: CC
Branch Name: CENTRAL CALIFORNIA
File Name: Not reported
State Senate District: 06081995
Status: BACKLOG, POTENTIAL ANNUAL WORKPLAN (AWP) SITE
Status Name: BACKLOG - POTENTIAL AWP SITE
Lead Agency: N/A
NPL: Not Listed
SIC Code: 49
SIC Name: ELECTRIC, GAS & SANITARY SERVICES
Access: Controlled
Cortese: Not reported
Hazardous Ranking Score: Not reported
Date Site Hazard Ranked: Not reported
Groundwater Contamination: Not reported
Staff Member Responsible for Site: Not reported
Supervisor Responsible for Site: Not reported
Region Water Control Board: CV
Region Water Control Board Name: CENTRAL VALLEY
Lat/Long Direction: Not reported
Lat/Long (dms): 0 0 0 / 0 0 0

PG&E MANUFACTURED GAS PLANT SQ-FK-SEL (Continued) **S101480250**

Lat/long Method:	Not reported
Lat/Long Description:	Not reported
State Assembly District Code:	31
State Senate District Code:	16
Facility ID:	10490093
Activity:	DISC
Activity Name:	DISCOVERY
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	02091987
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	BKLG
Definition of Status:	BACKLOG - POTENTIAL AWP SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	10490093
Activity:	SS
Activity Name:	SITE SCREENING
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	02091987
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	BKLG
Definition of Status:	BACKLOG - POTENTIAL AWP SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	10490093
Activity:	PEA
Activity Name:	PRELIMINARY ENDANGERMENT ASSESSMENT
AWP Code:	Not reported
Proposed Budget:	0

PG&E MANUFACTURED GAS PLANT SQ-FK-SEL (Continued) **S101480250**

AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	03101992
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	BKLG
Definition of Status:	BACKLOG - POTENTIAL AWP SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Alternate Address:	BLOCK: NORTH,SHERMAN,SYLVIA,YOUNG STREET
Alternate City,St,Zip:	SELMA, CA 93662
Alternate Address:	2139 SYLVIA STREET
Alternate City,St,Zip:	SELMA, CA 93662
Background Info:	Not reported
Comments Date:	02091987
Comments:	FACILITY IDENTIFIED BY PG&E
Comments Date:	02091987
Comments:	SAMPLE RESULTS RP CONDUCTED PA, REPORT TO DHS.
Comments Date:	02091987
Comments:	NO SOIL SAMPLES COLLECTED.
Comments Date:	02091987
Comments:	NO PNA OR LEAD DETECTED IN WELL ONSITE
Comments Date:	02091987
Comments:	SITE SCREENING DONE NO CLEANUP DOCUMENTED
Comments Date:	03101992
Comments:	PEA completed. Site is currently used as a service center.
Comments Date:	03101992
Comments:	The first manufactured gas plant was built on this site in
Comments Date:	03101992
Comments:	1889. Gas was manufactured at this site until approx 1930.
Comments Date:	03101992
Comments:	Soil borings revealed PNA’s from .001 - 69.8 ppm; motor oil
Comments Date:	03101992
Comments:	from 53-18,000 ppm; antimony 11.3-20.8 ppm; lead .77-135 ppm
Comments Date:	03101992
Comments:	silver ND-7.5 ppm; zinc 13.1-171 ppm. Total PNA’s of .87-
Comments Date:	03101992
Comments:	1.84 ug/l were detected in the shallow ground water. No
Comments Date:	03101992
Comments:	emergency interium measures recommended. HR required and
Comments Date:	03101992
Comments:	further action to investigate gw contamination (public
Comments Date:	03101992
Comments:	supply well is on site) and to determine the extent of soil
Comments Date:	03101992
Comments:	contamination.
ID Name:	CALSTARS CODE

PG&E MANUFACTURED GAS PLANT SQ-FK-SEL (Continued) **S101480250**

ID Value:	100302
Alternate Name:	PG&E MANUFACTURED GAS PLANT SQ-FK-SEL
Alternate Name:	PACIFIC GAS & ELECTRIC MFG GAS PLANT
Alternate Name:	Not reported
Special Programs Code:	Not reported
Special Programs Name:	Not reported

18
ENE
1/2-1
0.554 mi.
2924 ft.

PG&E FORMER GAS PLANT
2139 SYLVIA
SELMA, CA 93662

Notify 65 **S100562404**
N/A

Relative:
Higher

Actual:
308 ft.

NOTIFY 65:

Name:	PG&E FORMER GAS PLANT
Address:	2139 SYLVIA
City,State,Zip:	SELMA, CA 93662
Date Reported:	19930429
Staff Initials:	RB
Board File Number:	05F930009
Facility Type:	UNKNOWN
Discharge Date:	Not reported
Issue Date:	Not reported
Incident Description:	Polynuclear aromatic hydrocarbons detected in on-site monitoring wells.
Global ID:	Not reported
Status:	Not reported

19
NE
1/2-1
0.741 mi.
3911 ft.

SELMA ELECTROPLATING
2336 CHANDLER STREET
SELMA, CA 93662

RESPONSE
ENVIROSTOR
CPS-SLIC
HIST Cal-Sites
CUPA Listings
CERS

1000294729
N/A

Relative:
Lower

Actual:
306 ft.

RESPONSE:

Name:	SELMA ELECTROPLATING
Address:	2336 CHANDLER STREET
City,State,Zip:	SELMA, CA 93662
Facility ID:	10340011
Site Type:	State Response
Site Type Detail:	State Response or NPL
Acres:	0.25
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	William Beckman
Division Branch:	Cleanup Sacramento
Site Code:	100330
Site Mgmt. Req.:	NONE SPECIFIED
Assembly:	31
Senate:	14
Special Program Status:	Not reported
Status:	Certified
Status Date:	06/13/2006

SELMA ELECTROPLATING (Continued) **1000294729**

Restricted Use:	NO
Funding:	Orphan Funds
Latitude:	36.57324
Longitude:	-119.6176
APN:	NONE SPECIFIED
Past Use:	METAL PLATING - CHROME
Potential COC :	Arsenic Chromium VI
Confirmed COC:	Chromium VI Arsenic
Potential Description:	SOIL
Alias Name:	SELMA ELECTRO PLATING
Alias Type:	Alternate Name
Alias Name:	CAD009167800
Alias Type:	EPA Identification Number
Alias Name:	110033608219
Alias Type:	EPA (FRS #)
Alias Name:	SLT5FR424396
Alias Type:	GeoTracker Global ID
Alias Name:	100330
Alias Type:	Project Code (Site Code)
Alias Name:	10340011
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Certification
Completed Date:	06/13/2006
Comments:	Certification package was completed.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	03/11/2004
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Workplan
Completed Date:	12/08/2003
Comments:	RAW/CEQA/RA -- PLEASE SEE COMMENT BELOW. RAW/SOIL -- THE DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC) HAS APPROVED A REMOVAL ACTION WORK PLAN (RAW) PREPARED BY PERFORMANCE EXCAVATORS FOR THE SELMA ELECTROPLATING SITE. THE RAW RECOMMENDS EXCAVATION , TRANSPORTATION AND DISPOSAL OF APPROXIMATELY 500 TONS OF CHROMIUM CONTAMINATED SOIL TO CLEAN HARBORS HAZARDOUS WASTE DISPOSAL FACILITY IN BUTTONWILLOW. THE CONTAMINATED SOIL WAS DISCOVERED BY DTSC WHEN THE FORMER METAL PLATING FACILITY WAS DEMOLISHED AND THE CEMENT FLOOR WAS REMOVED LAST YEAR. THE SOIL REMOVAL WAS CONSIDERED TIME CRITICAL BECAUSE OF THE POTENTIAL FOR HIGHLY SOLUBLE CHROME SIX TO CONTAMINATE UNDERLYING GROUNDWATER DURING THE WINTER RAINY SEASON. CEQA/SOIL -- DTSC HAS COMPLETED AN ENVIRONMENTAL QUALITY ACT (CEQA), NOTICE OF EXEMPTION (NOE) FOR THE RAW PREPARED FOR THE SELMA ELECTROPLATING SITE. THE NOE STATES THAT THE PROJECT IS EXEMPT BECAUSE THE INTERIM MEASURE IS NECESSARY TO ENSURE THE DECLARED IMMINENT AND SUBSTANTIAL ENDANGERMENT (I&SE) DOES NOT RESULT IN A GROUNDWATER THREAT AND WILL BE DONE IN A MANNER THAT WILL CAUSE A THREAT TO PUBLIC HEALTH OR THE ENVIRONMENT. RA/SOIL -- DTSC CONTRACTOR, PERFORMANCE EXCAVATORS, HAS COMPLETED REMOVAL ACTIONS AND THE ASSOCIATED COMPLETION REPORT FOR

SELMA ELECTROPLATING (Continued) **1000294729**

THE SELMA ELECTROPLATING SITE. THE REMOVAL ACTIONS INCLUDED: THE EXCAVATION OF 514.23 TONS OF SOIL CONTAMINATED WITH CHROMIUM; TRANSPORTATION OF CONTAMINATED SOIL TO CLEAN HARBORS, BUTTONWILLOW, CALIFORNIA; BACKFILLING, GRADING, AND COMPACTING CLEAN SOIL TO THE ORIGINAL SITE CONDITIONS.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation / Feasibility Study
Completed Date: 06/30/2003
Comments: RIFS/SL/GW-- Performed remedial investigation at the site, to assess the lateral and vertical extent of soils and groundwater at the site and an alternatives analysis with cost estimates.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 02/10/1987
Comments: SITE SCREENING DONE EPA LEAD SITE. SITE ON CERCLIS.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 12/08/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Final Determination of Non-Compliance
Completed Date: 04/06/2001
Comments: Determination of non compliance was issued.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 01/04/1982
Comments: FACILITY IDENTIFIED IDENTIFIED FROM PHONE BOOK

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Name: SELMA ELECTROPLATING
Address: 2336 CHANDLER STREET
City,State,Zip: SELMA, CA 93662
Facility ID: 10340011
Status: Certified
Status Date: 06/13/2006
Site Code: 100330
Site Type: State Response

SELMA ELECTROPLATING (Continued) **1000294729**

Site Type Detailed: State Response or NPL
Acres: 0.25
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: William Beckman
Division Branch: Cleanup Sacramento
Assembly: 31
Senate: 14
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Orphan Funds
Latitude: 36.57324
Longitude: -119.6176
APN: NONE SPECIFIED
Past Use: METAL PLATING - CHROME
Potential COC: Arsenic Chromium VI
Confirmed COC: Chromium VI Arsenic
Potential Description: SOIL
Alias Name: SELMA ELECTRO PLATING
Alias Type: Alternate Name
Alias Name: CAD009167800
Alias Type: EPA Identification Number
Alias Name: 110033608219
Alias Type: EPA (FRS #)
Alias Name: SLT5FR424396
Alias Type: GeoTracker Global ID
Alias Name: 100330
Alias Type: Project Code (Site Code)
Alias Name: 10340011
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 06/13/2006
Comments: Certification package was completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 03/11/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 12/08/2003
Comments: RAW/CEQA/RA -- PLEASE SEE COMMENT BELOW. RAW/SOIL -- THE DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC) HAS APPROVED A REMOVAL ACTION WORK PLAN (RAW) PREPARED BY PERFORMANCE EXCAVATORS FOR THE SELMA ELECTROPLATING SITE. THE RAW RECOMMENDS EXCAVATION , TRANSPORTATION AND DISPOSAL OF APPROXIMATELY 500 TONS OF CHROMIUM CONTAMINATED SOIL TO CLEAN HARBORS HAZARDOUS WASTE DISPOSAL FACILITY IN BUTTONWILLOW. THE CONTAMINATED SOIL WAS DISCOVERED BY DTSC WHEN THE FORMER METAL

SELMA ELECTROPLATING (Continued) **1000294729**

PLATING FACILITY WAS DEMOLISHED AND THE CEMENT FLOOR WAS REMOVED LAST YEAR. THE SOIL REMOVAL WAS CONSIDERED TIME CRITICAL BECAUSE OF THE POTENTIAL FOR HIGHLY SOLUBLE CHROME SIX TO CONTAMINATE UNDERLYING GROUNDWATER DURING THE WINTER RAINY SEASON. CEQA/SOIL -- DTSC HAS COMPLETED AN ENVIRONMENTAL QUALITY ACT (CEQA), NOTICE OF EXEMPTION (NOE) FOR THE RAW PREPARED FOR THE SELMA ELECTROPLATING SITE. THE NOE STATES THAT THE PROJECT IS EXEMPT BECAUSE THE INTERIM MEASURE IS NECESSARY TO ENSURE THE DECLARED IMMINENT AND SUBSTANTIAL ENDANGERMENT (I&SE) DOES NOT RESULT IN A GROUNDWATER THREAT AND WILL BE DONE IN A MANNER THAT WILL CAUSE A THREAT TO PUBLIC HEALTH OR THE ENVIRONMENT. RA/SOIL -- DTSC CONTRACTOR, PERFORMANCE EXCAVATORS, HAS COMPLETED REMOVAL ACTIONS AND THE ASSOCIATED COMPLETION REPORT FOR THE SELMA ELECTROPLATING SITE. THE REMOVAL ACTIONS INCLUDED: THE EXCAVATION OF 514.23 TONS OF SOIL CONTAMINATED WITH CHROMIUM; TRANSPORTATION OF CONTAMINATED SOIL TO CLEAN HARBORS, BUTTONWILLOW, CALIFORNIA; BACKFILLING, GRADING, AND COMPACTING CLEAN SOIL TO THE ORIGINAL SITE CONDITIONS.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation / Feasibility Study
Completed Date: 06/30/2003
Comments: RIFS/SL/GW-- Performed remedial investigation at the site, to assess the lateral and vertical extent of soils and groundwater at the site and an alternatives analysis with cost estimates.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 02/10/1987
Comments: SITE SCREENING DONE EPA LEAD SITE. SITE ON CERCLIS.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 12/08/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Final Determination of Non-Compliance
Completed Date: 04/06/2001
Comments: Determination of non compliance was issued.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 01/04/1982
Comments: FACILITY IDENTIFIED IDENTIFIED FROM PHONE BOOK

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported

SELMA ELECTROPLATING (Continued) **1000294729**

Schedule Due Date: Not reported
Schedule Revised Date: Not reported

CPS-SLIC:

Name:	SELMA ELECTRO PLATING
Address:	2336 CHANDLER ST.
City,State,Zip:	SELMA, CA 93662-2706
Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	06/13/2006
Global Id:	SLT5FR424396
Lead Agency:	DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Lead Agency Case Number:	10340011
Latitude:	36.573
Longitude:	-119.6187
Case Type:	Cleanup Program Site
Case Worker:	EM
Local Agency:	DEPARTMENT OF TOXIC SUBSTANCES CONTROL
RB Case Number:	SLT5FR042
File Location:	DTSC
Potential Media Affected:	Soil
Potential Contaminants of Concern:	Not reported
Site History:	certified by DTSC on 6/13/2006

Click here to access the California GeoTracker records for this facility:

Calsite:

Name:	SELMA ELECTROPLATING
Address:	2336 CHANDLER STREET
City:	SELMA
Region:	SACRAMENTO
Facility ID:	10340011
Facility Type:	STATE
Type:	STATE FUNDED SITE
Branch:	CC
Branch Name:	CENTRAL CALIFORNIA
File Name:	Not reported
State Senate District:	07281993
Status:	ANNUAL WORKPLAN (AWP) - ACTIVE SITE
Status Name:	ANNUAL WORKPLAN - ACTIVE SITE
Lead Agency:	DEPT OF TOXIC SUBSTANCES CONTROL
NPL:	Not Listed
SIC Code:	34
SIC Name:	MANU - FABRICATED METAL PRODUCTS
Access:	Not reported
Cortese:	Not reported
Hazardous Ranking Score:	Not reported
Date Site Hazard Ranked:	Not reported
Groundwater Contamination:	Not reported
Staff Member Responsible for Site:	EMENSAH
Supervisor Responsible for Site:	Not reported
Region Water Control Board:	Not reported
Region Water Control Board Name:	Not reported
Lat/Long Direction:	Not reported
Lat/Long (dms):	0 0 0 / 0 0 0
Lat/long Method:	Not reported

SELMA ELECTROPLATING (Continued) **1000294729**

Lat/Long Description:	Not reported
State Assembly District Code:	31
State Senate District Code:	16
Facility ID:	10340011
Activity:	DISC
Activity Name:	DISCOVERY
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	01041982
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	10340011
Activity:	SS
Activity Name:	SITE SCREENING
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	02101987
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	10340011
Activity:	PRP
Activity Name:	POTENTIAL RESPONSIBLE PARTY SEARCH
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported

SELMA ELECTROPLATING (Continued) **1000294729**

Revised Due Date:	Not reported
Comments Date:	02232000
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	10340011
Activity:	ORDER
Activity Name:	I/SE, IORSE, FFA, FFSRA, VCA, EA
AWP Code:	I/SE
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	04062001
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	10340011
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	SL/GW
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	06302003
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0

SELMA ELECTROPLATING (Continued) **1000294729**

Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	10340011
Activity:	RAW
Activity Name:	REMOVAL ACTION WORKPLAN
AWP Code:	SOIL
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	12082003
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	10340011
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	SOIL
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	03112004
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0

SELMA ELECTROPLATING (Continued) **1000294729**

Facility ID:	10340011
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	04302006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	10340011
Activity:	CEQA
Activity Name:	CEQA INCLUDING NEGATIVE DECS
AWP Code:	SOIL
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	12082003
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	10340011
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	GW
Proposed Budget:	0
AWP Completion Date:	10302005
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0

SELMA ELECTROPLATING (Continued) **1000294729**

Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Alternate Address:	2336 CHANDLER STREET
Alternate City,St,Zip:	SELMA, CA 93662
Background Info:	Selma Electroplating operated as an electroplating shop from 1929 to 1989. The facility rebuilt batteries and conducted metal finishing and polishing. Metal contaminated waste water generated during the plating operations was discharged directly to the soil at the rear of the facility. Reports of analyses of soils indicate that metal and cyanide concentrations are up to 750 times background levels. Contaminants detected in soil samples include arsenic, barium, cadmium, chromium, copper, lead and cyanide. Several years after the business ceased operation a fire destroyed the buildings. In 1987, DHS had the PRP halt the practice of discarding the waste into the soil. A Report of Violation was issued which required contaminated soils to be removed. In May 1992, the PRPR was provided a copy of HRS package prepared by DTSC. In 1996, parties representing the PRP declined to enter into the Voluntary Cleanup Program for remediating the site due to financial constraints. EPA later found the site did not score high enough to be eligible for the NPL and returned the site to DTSC. In 2001, DTSC issued a Imminent and Substantial Endangerment Determination.
Comments Date:	06302003
Comments:	at the site and an alternatives analysis with cost estimates.
Comments Date:	07281993
Comments:	A US-EPA "Report of Individual Site" stated an expanded site
Comments Date:	07281993
Comments:	inspection was completed and recommended "No Further Action"
Comments Date:	07281993
Comments:	under CERCLA 6/3/93. The US-EPA report statedthat heavy
Comments Date:	07281993
Comments:	metals were detected in soil samples collected by DTSC on
Comments Date:	07281993
Comments:	August 5, 1887. The contamination of concern was berylium
Comments Date:	07281993
Comments:	up to 172 mg/kg; cadmium up to 17.6 mg/kg; chromium up to
Comments Date:	07281993
Comments:	765 mg/kg; lead up to 1,120 mg/kg; and cyanide up to 198
Comments Date:	07281993
Comments:	mg/kg. The report also statedthat concentrations diminished
Comments Date:	07281993
Comments:	from samples taken further away off site.

SELMA ELECTROPLATING (Continued) **1000294729**

Comments Date:	07281993
Comments:	Not reported
Comments Date:	07281993
Comments:	Not reported
Comments Date:	07281993
Comments:	Not reported
Comments Date:	01041982
Comments:	FACILITY IDENTIFIED IDENTIFIED FROM PHONE BOOK
Comments Date:	02101987
Comments:	SITE SCREENING DONE EPA LEAD SITE. SITE ON CERCLIS.
Comments Date:	02232000
Comments:	PRP - DTSC conducted a review of the Choice Point database to
Comments Date:	02232000
Comments:	determine site ownership (current and historical) and evaluate
Comments Date:	02232000
Comments:	the data for use in establishing liability for site cleanup as
Comments Date:	02232000
Comments:	a Potentially Responsible Party.
Comments Date:	02241992
Comments:	Hazard ranking completed, site migration score = 31.16
Comments Date:	03041982
Comments:	QUESTIONNAIRE SENT
Comments Date:	03112004
Comments:	RAW/CEQA/RA -- PLEASE SEE COMMENT BELOW.
Comments Date:	03112004
Comments:	Not reported
Comments Date:	03112004
Comments:	RAW/SOIL -- THE DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC)
Comments Date:	03112004
Comments:	HAS APPROVED A REMOVAL ACTION WORK PLAN (RAW) PREPARED BY
Comments Date:	03112004
Comments:	PERFORMANCE EXCAVATORS FOR THE SELMA ELECTROPLATING SITE. THE
Comments Date:	03112004
Comments:	RAW RECOMMENDS EXCAVATION , TRANSPORTATION AND DISPOSAL OF
Comments Date:	03112004
Comments:	APPROXIMATELY 500 TONS OF CHROMIUM CONTAMINATED SOIL TO CLEAN
Comments Date:	03112004
Comments:	HARBORS HAZARDOUS WASTE DISPOSAL FACILITY IN BUTTONWILLOW. THE
Comments Date:	03112004
Comments:	CONTAMINATED SOIL WAS DISCOVERED BY DTSC WHEN THE FORMER METAL
Comments Date:	03112004
Comments:	PLATING FACILITY WAS DEMOLISHED AND THE CEMENT FLOOR WAS REMOVED
Comments Date:	03112004
Comments:	LAST YEAR. THE SOIL REMOVAL WAS CONSIDERED TIME CRITICAL
Comments Date:	03112004
Comments:	BECAUSE OF THE POTENTIAL FOR HIGHLY SOLUBLE CHROME SIX TO
Comments Date:	03112004
Comments:	CONTAMINATE UNDERLYING GROUNDWATER DURING THE WINTER RAINY
Comments Date:	03112004
Comments:	SEASON.
Comments Date:	03112004
Comments:	Not reported
Comments Date:	03112004
Comments:	CEQA/SOIL -- DTSC HAS COMPLETED AN ENVIRONMENTAL QUALITY
Comments Date:	03112004
Comments:	ACT (CEQA), NOTICE OF EXEMPTION (NOE) FOR THE RAW PREPARED FOR
Comments Date:	03112004

SELMA ELECTROPLATING (Continued) **1000294729**

Comments: THE SELMA ELECTROPLATING SITE. THE NOE STATES THAT THE PROJECT
Comments Date: 03112004
Comments: IS EXEMPT BECAUSE THE INTERIM MEASURE IS NECESSARY TO ENSURE
Comments Date: 03112004
Comments: THE DECLARED IMMINENT AND SUBSTANTIAL ENDANGERMENT (I&SE) DOES
Comments Date: 03112004
Comments: NOT RESULT IN A GROUNDWATER THREAT AND WILL BE DONE IN A MANNER
Comments Date: 03112004
Comments: THAT WILL CAUSE A THREAT TO PUBLIC HEALTH OR THE ENVIRONMENT.
Comments Date: 03112004
Comments: Not reported
Comments Date: 03112004
Comments: RA/SOIL -- DTSC CONTRACTOR, PERFORMANCE EXCAVATORS, HAS
Comments Date: 03112004
Comments: COMPLETED REMOVAL ACTIONS AND THE ASSOCIATED COMPLETION REPORT
Comments Date: 03112004
Comments: FOR THE SELMA ELECTROPLATING SITE. THE REMOVAL ACTIONS
Comments Date: 03112004
Comments: INCLUDED: THE EXCAVATION OF 514.23 TONS OF SOIL CONTAMINATED
Comments Date: 03112004
Comments: WITH CHROMIUM; TRANSPORTATION OF CONTAMINATED SOIL TO CLEAN
Comments Date: 03112004
Comments: HARBORS, BUTTONWILLOW, CALIFORNIA; BACKFILLING, GRADING, AND
Comments Date: 03112004
Comments: COMPACTING CLEAN SOIL TO THE ORIGINAL SITE CONDITIONS.
Comments Date: 04062001
Comments: Imminent and Substantial Endangerment Determination was issued.
Comments Date: 06302003
Comments: RIFS/SL/GW-- Performed remedial investigation at the site, to
Comments Date: 06302003
Comments: assess the lateral and vertical extent of soils and groundwater
ID Name: CALSTARS CODE
ID Value: 100330
ID Name: EPA IDENTIFICATION NUMBER
ID Value: CAD009167800
Alternate Name: SELMA ELECTRO PLATING
Alternate Name: SELMA ELECTROPLATING
Alternate Name: Not reported
Special Programs Code: Not reported
Special Programs Name: Not reported

CUPA FRESNO:
Name: SELMA ELECTROPLATING
Address: 2336 CHANDLER ST
City,State,Zip: SELMA, CA 93662
Region: FRESNO
Cross Street: STILLMAN
Facility ID: FA0268662
APM Number: 38908014
Program Element: CONTAMINATED SITE - MISC/DTSC LEAD

Name: SELMA ELECTROPLATING
Address: 2336 CHANDLER ST
City,State,Zip: SELMA, CA 93662
Region: FRESNO
Cross Street: STILLMAN
Facility ID: FA0268662

SELMA ELECTROPLATING (Continued) **1000294729**

APM Number:	38908014
Program Element:	HAZ MAT DISCLOSURE/CLOSED SITE

CERS:

Name:	SELMA ELECTROPLATING
Address:	2336 CHANDLER STREET
City,State,Zip:	SELMA, CA 93662
Site ID:	342822
CERS ID:	10340011
CERS Description:	State Response

Affiliation:

Affiliation Type Desc:	Supervisor
Entity Name:	WILLIAM BECKMAN
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

Name:	SELMA ELECTRO PLATING
Address:	2336 CHANDLER ST.
City,State,Zip:	SELMA, CA 93662-2706
Site ID:	222966
CERS ID:	SLT5FR424396
CERS Description:	Cleanup Program Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	GREG ISSINGHOFF - CENTRAL VALLEY RWQCB (REGION 5F)
Entity Title:	Not reported
Affiliation Address:	1685 E STREET
Affiliation City:	FRESNO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	5594884390,

Affiliation Type Desc:	Local Agency Caseworker
Entity Name:	EMMANUEL MENSAH - DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Entity Title:	Not reported
Affiliation Address:	8800 CAL CENTER DRIVE
Affiliation City:	SACRAMENTO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

Count: 3 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
SELMA	S100187649	SELMA SCAVENGER CO (2)	BETHEL AND FLORAL AVENUES	93662	ENVIROSTOR
SELMA	S107539800		ON DEWOLF AVENUE (200 YARDS SO	93662	CDL
SELMA	1003878936	PG&E GAS PLANT SELMA	N& SYLVIA YOUNG & SHERMAN	93662	SEMS-ARCHIVE

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Lists of Federal Delisted NPL sites

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Quarterly

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 06/24/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 12/29/2021
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: Quarterly

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Quarterly

Lists of Federal RCRA TSD facilities

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Quarterly

Lists of Federal RCRA generators

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 11/15/2021
Date Data Arrived at EDR: 11/16/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 84

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/07/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 11/19/2021
Date Data Arrived at EDR: 11/19/2021
Date Made Active in Reports: 02/14/2022
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/23/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 11/19/2021
Date Data Arrived at EDR: 11/19/2021
Date Made Active in Reports: 02/14/2022
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/23/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 03/01/2022
Date Made Active in Reports: 03/10/2022
Number of Days to Update: 9

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 03/01/2022
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Quarterly

Lists of state- and tribal (Superfund) equivalent sites

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 10/25/2021
Date Data Arrived at EDR: 10/26/2021
Date Made Active in Reports: 01/14/2022
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/25/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Quarterly

Lists of state- and tribal hazardous waste facilities

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 10/25/2021
Date Data Arrived at EDR: 10/26/2021
Date Made Active in Reports: 01/14/2022
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/25/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Quarterly

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/08/2021
Date Data Arrived at EDR: 11/09/2021
Date Made Active in Reports: 01/28/2022
Number of Days to Update: 80

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/08/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Quarterly

Lists of state and tribal leaking storage tanks

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/28/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/28/2021
Date Data Arrived at EDR: 06/22/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

Lists of state and tribal registered storage tanks

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 10/14/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 02/01/2022
Number of Days to Update: 88

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 02/07/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases
UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 12/01/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 03/02/2022
Number of Days to Update: 85

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 03/10/2022
Next Scheduled EDR Contact: 06/27/2022
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/14/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/06/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 02/09/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/28/2021
Date Data Arrived at EDR: 06/22/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

Lists of state and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 10/25/2021
Date Data Arrived at EDR: 10/26/2021
Date Made Active in Reports: 01/14/2022
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/25/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/14/2021
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Varies

Lists of state and tribal brownfield sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 12/15/2021
Date Data Arrived at EDR: 12/16/2021
Date Made Active in Reports: 03/03/2022
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 12/16/2021
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 02/23/2022
Date Data Arrived at EDR: 03/10/2022
Date Made Active in Reports: 03/10/2022
Number of Days to Update: 0

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/15/2022
Next Scheduled EDR Contact: 06/27/2022
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 09/14/2021
Date Data Arrived at EDR: 11/11/2021
Date Made Active in Reports: 11/23/2021
Number of Days to Update: 12

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 11/16/2021
Date Data Arrived at EDR: 11/18/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/23/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 10/25/2021
Date Data Arrived at EDR: 10/26/2021
Date Made Active in Reports: 01/14/2022
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/25/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Varies

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 10/18/2021
Date Data Arrived at EDR: 10/19/2021
Date Made Active in Reports: 01/12/2022
Number of Days to Update: 85

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 01/19/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 11/16/2021
Date Data Arrived at EDR: 11/18/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/23/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Quarterly

AQUEOUS FOAM: Former Fire Training Facility Assessments Listing

Airports shown on this list are those believed to use Aqueous Film Forming Foam (AFFF), and certified by the Federal Aviation Administration (FAA) under Title 14, Code of Federal Regulations (CFR), Part 139 (14 CFR Part 139). This list was created by SWRCB using information available from the FAA. Location points shown are from the latitude and longitude listed on the FAA airport master record.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 12/10/2021
Date Made Active in Reports: 02/25/2022
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-341-5455
Last EDR Contact: 03/11/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing
Aboveground storage tank sites

Date of Government Version: 11/04/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 80

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

CERS TANKS: California Environmental Reporting System (CERS) Tanks
List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 10/18/2021
Date Data Arrived at EDR: 10/19/2021
Date Made Active in Reports: 01/12/2022
Number of Days to Update: 85

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 01/19/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Quarterly

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 02/24/2022
Date Data Arrived at EDR: 02/25/2022
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 12

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 11/30/2021
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/16/2022
Number of Days to Update: 78

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/15/2021
Date Data Arrived at EDR: 12/16/2021
Date Made Active in Reports: 03/10/2022
Number of Days to Update: 84

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/16/2021
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System
California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 09/30/2021
Date Data Arrived at EDR: 10/19/2021
Date Made Active in Reports: 01/12/2022
Number of Days to Update: 85

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 01/19/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)
Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)
Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 10/26/2021
Date Data Arrived at EDR: 11/16/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 84

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 02/15/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 06/07/2021
Date Data Arrived at EDR: 07/13/2021
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 239

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/07/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/08/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 09/28/2021
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 12/17/2021
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 02/01/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/03/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/17/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/17/2021
Next Scheduled EDR Contact: 03/28/2022
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 08/14/2020
Date Made Active in Reports: 11/04/2020
Number of Days to Update: 82

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/18/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 10/18/2021
Date Data Arrived at EDR: 10/20/2021
Date Made Active in Reports: 01/10/2022
Number of Days to Update: 82

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/19/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 10/20/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 11/12/2021
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/25/2022
Number of Days to Update: 22

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/19/2020
Date Data Arrived at EDR: 01/08/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 73

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/07/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/29/2021
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/24/2021
Date Made Active in Reports: 11/19/2021
Number of Days to Update: 87

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 84

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 02/04/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 12/27/2021
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/08/2022
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2021
Date Data Arrived at EDR: 10/13/2021
Date Made Active in Reports: 01/10/2022
Number of Days to Update: 89

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/03/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 12/14/2021
Number of Days to Update: 90

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/04/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 07/26/2021
Date Data Arrived at EDR: 07/27/2021
Date Made Active in Reports: 10/22/2021
Number of Days to Update: 87

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 01/31/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites
A listing of former lead smelter site locations.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 05/03/2022
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites
A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)
The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data
Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/28/2021
Number of Days to Update: 89

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 03/14/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Quarterly

US MINES: Mines Master Index File
Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/02/2021
Date Data Arrived at EDR: 11/22/2021
Date Made Active in Reports: 02/14/2022
Number of Days to Update: 84

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/23/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/27/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 78

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 12/14/2021
Date Data Arrived at EDR: 12/15/2021
Date Made Active in Reports: 03/10/2022
Number of Days to Update: 85

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 03/04/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 11/04/2021
Date Data Arrived at EDR: 11/22/2021
Date Made Active in Reports: 02/25/2022
Number of Days to Update: 95

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/11/2022
Date Made Active in Reports: 02/14/2022
Number of Days to Update: 34

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 01/11/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 02/22/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 01/01/2022
Date Data Arrived at EDR: 01/04/2022
Date Made Active in Reports: 01/10/2022
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 01/04/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/15/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/01/2022
Number of Days to Update: 78

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 12/16/2021
Date Data Arrived at EDR: 12/16/2021
Date Made Active in Reports: 03/03/2022
Number of Days to Update: 77

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/16/2021
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing
list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64

Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 02/08/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 11/29/2021
Date Data Arrived at EDR: 11/29/2021
Date Made Active in Reports: 02/14/2022
Number of Days to Update: 77

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Varies

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 11/17/2021
Date Data Arrived at EDR: 11/18/2021
Date Made Active in Reports: 02/07/2022
Number of Days to Update: 81

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 08/27/2021
Date Data Arrived at EDR: 09/01/2021
Date Made Active in Reports: 11/19/2021
Number of Days to Update: 79

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 02/07/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Annually

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 06/10/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 78

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/17/2021
Next Scheduled EDR Contact: 03/28/2022
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 11/10/2021
Date Data Arrived at EDR: 11/11/2021
Date Made Active in Reports: 02/03/2022
Number of Days to Update: 84

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 03/03/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 10/05/2021
Date Data Arrived at EDR: 10/06/2021
Date Made Active in Reports: 12/29/2021
Number of Days to Update: 84

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/18/2021
Date Data Arrived at EDR: 11/19/2021
Date Made Active in Reports: 02/07/2022
Number of Days to Update: 80

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 04/15/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/07/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 11/15/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/03/2022
Number of Days to Update: 80

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 02/15/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/15/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/03/2022
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/15/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 10/04/2021
Date Data Arrived at EDR: 10/05/2021
Date Made Active in Reports: 12/22/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/04/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 11/18/2021
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/17/2022
Number of Days to Update: 79

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 11/09/2021
Date Data Arrived at EDR: 11/09/2021
Date Made Active in Reports: 01/27/2022
Number of Days to Update: 79

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/08/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 11/30/2021
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/17/2022
Number of Days to Update: 79

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 11/29/2021
Date Data Arrived at EDR: 11/29/2021
Date Made Active in Reports: 02/11/2022
Number of Days to Update: 74

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 12/13/2021
Date Data Arrived at EDR: 12/14/2021
Date Made Active in Reports: 03/03/2022
Number of Days to Update: 79

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 03/10/2022
Next Scheduled EDR Contact: 06/27/2022
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 12/03/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/24/2022
Number of Days to Update: 79

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 90

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/07/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 12/14/2021
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 11/30/2021
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/16/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 10/18/2021
Date Data Arrived at EDR: 10/19/2021
Date Made Active in Reports: 01/12/2022
Number of Days to Update: 85

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 01/19/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)
Produced water ponds sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System
DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 07/13/2021
Date Data Arrived at EDR: 07/14/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 84

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Varies

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 12/29/2021
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Varies

PCS: Permit Compliance System
PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 12/29/2021
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Semi-Annually

PCS INACTIVE: Listing of Inactive PCS Permits
An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 12/29/2021
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Semi-Annually

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners
EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List
The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank
The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites
A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 12/28/2021
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks
Underground storage tank sites located in Alameda county.

Date of Government Version: 09/30/2021
Date Data Arrived at EDR: 10/01/2021
Date Made Active in Reports: 12/15/2021
Number of Days to Update: 75

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 12/28/2021
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 11/01/2021
Date Data Arrived at EDR: 11/02/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 83

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 12/28/2021
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 09/15/2021
Date Data Arrived at EDR: 09/16/2021
Date Made Active in Reports: 12/09/2021
Number of Days to Update: 84

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/28/2021
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 10/22/2021
Date Data Arrived at EDR: 10/26/2021
Date Made Active in Reports: 01/19/2022
Number of Days to Update: 85

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 10/01/2021
Date Data Arrived at EDR: 11/02/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 83

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 11/30/2021
Date Data Arrived at EDR: 12/01/2021
Date Made Active in Reports: 02/16/2022
Number of Days to Update: 77

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 02/07/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 06/28/2021
Date Data Arrived at EDR: 12/21/2021
Date Made Active in Reports: 03/03/2022
Number of Days to Update: 72

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 12/21/2021
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 08/12/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 88

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 10/18/2021
Date Data Arrived at EDR: 10/20/2021
Date Made Active in Reports: 01/12/2022
Number of Days to Update: 84

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

KERN COUNTY:

CUPA KERN: CUPA Facility List
A listing of sites included in the Kern County Hazardous Material Business Plan.

Date of Government Version: 11/10/2021
Date Data Arrived at EDR: 11/12/2021
Date Made Active in Reports: 02/02/2022
Number of Days to Update: 82

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 11/10/2021
Date Data Arrived at EDR: 11/12/2021
Date Made Active in Reports: 02/02/2022
Number of Days to Update: 82

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/03/2020
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/14/2021
Number of Days to Update: 78

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 03/10/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 11/04/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 80

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/10/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 07/31/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 11/09/2020
Number of Days to Update: 80

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 03/10/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 03/10/2022
Next Scheduled EDR Contact: 06/27/2022
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 10/14/2021
Date Data Arrived at EDR: 10/19/2021
Date Made Active in Reports: 01/13/2022
Number of Days to Update: 86

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/08/2021
Date Data Arrived at EDR: 10/08/2021
Date Made Active in Reports: 12/29/2021
Number of Days to Update: 82

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/11/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2021
Date Data Arrived at EDR: 02/18/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 81

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/07/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 12/16/2021
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills
This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 10/13/2021
Date Made Active in Reports: 01/04/2022
Number of Days to Update: 83

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 01/07/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory
A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 04/19/2021
Date Data Arrived at EDR: 06/17/2021
Date Made Active in Reports: 06/28/2021
Number of Days to Update: 11

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 12/17/2021
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory
A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 04/19/2021
Date Data Arrived at EDR: 06/17/2021
Date Made Active in Reports: 09/14/2021
Number of Days to Update: 89

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 12/17/2021
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 05/26/2021
Date Data Arrived at EDR: 07/09/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 82

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 04/24/2022
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 01/07/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 02/02/2021
Date Data Arrived at EDR: 04/28/2021
Date Made Active in Reports: 07/13/2021
Number of Days to Update: 76

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/10/2020
Date Data Arrived at EDR: 08/12/2020
Date Made Active in Reports: 10/23/2020
Number of Days to Update: 72

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 12/20/2021
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Semi-Annually

MENDOCINO COUNTY:

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/22/2021
Date Data Arrived at EDR: 11/18/2021
Date Made Active in Reports: 11/22/2021
Number of Days to Update: 4

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 11/24/2021
Date Data Arrived at EDR: 11/29/2021
Date Made Active in Reports: 02/11/2022
Number of Days to Update: 74

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 03/04/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 10/04/2021
Date Data Arrived at EDR: 10/06/2021
Date Made Active in Reports: 12/29/2021
Number of Days to Update: 84

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 01/07/2022
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 10/26/2021
Date Data Arrived at EDR: 10/27/2021
Date Made Active in Reports: 01/20/2022
Number of Days to Update: 85

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 10/08/2021
Date Data Arrived at EDR: 11/04/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 81

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 01/31/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 10/08/2021
Date Data Arrived at EDR: 11/02/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 83

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 01/31/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 10/29/2021
Date Data Arrived at EDR: 10/29/2021
Date Made Active in Reports: 01/20/2022
Number of Days to Update: 83

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 12/01/2021
Date Data Arrived at EDR: 12/02/2021
Date Made Active in Reports: 02/25/2022
Number of Days to Update: 85

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 09/29/2021
Date Data Arrived at EDR: 09/30/2021
Date Made Active in Reports: 12/14/2021
Number of Days to Update: 75

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/14/2022
Next Scheduled EDR Contact: 06/27/2022
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 09/29/2021
Date Data Arrived at EDR: 09/30/2021
Date Made Active in Reports: 12/15/2021
Number of Days to Update: 76

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/14/2022
Next Scheduled EDR Contact: 06/27/2022
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 06/18/2021
Date Data Arrived at EDR: 09/28/2021
Date Made Active in Reports: 12/14/2021
Number of Days to Update: 77

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 12/29/2021
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 08/02/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 11/02/2021
Number of Days to Update: 90

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 12/29/2021
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 11/04/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 80

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 12/01/2021
Date Data Arrived at EDR: 12/02/2021
Date Made Active in Reports: 02/17/2022
Number of Days to Update: 77

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 01/31/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 11/30/2021
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/16/2022
Number of Days to Update: 78

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 02/25/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/22/2021
Date Data Arrived at EDR: 10/19/2021
Date Made Active in Reports: 01/13/2022
Number of Days to Update: 86

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 02/03/2022
Date Data Arrived at EDR: 02/04/2022
Date Made Active in Reports: 02/11/2022
Number of Days to Update: 7

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

LUST SAN FRANCISCO: Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/10/2021
Date Data Arrived at EDR: 11/11/2021
Date Made Active in Reports: 02/02/2022
Number of Days to Update: 83

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/10/2022
Next Scheduled EDR Contact: 06/27/2022
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 11/15/2021
Date Data Arrived at EDR: 11/16/2021
Date Made Active in Reports: 02/03/2022
Number of Days to Update: 79

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/11/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 11/19/2021
Date Data Arrived at EDR: 11/22/2021
Date Made Active in Reports: 02/07/2022
Number of Days to Update: 77

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 82

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 09/15/2021
Date Data Arrived at EDR: 09/16/2021
Date Made Active in Reports: 12/09/2021
Number of Days to Update: 84

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 07/02/2021
Date Data Arrived at EDR: 07/06/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 8

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 12/14/2021
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 09/24/2021
Number of Days to Update: 86

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 12/14/2021
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 11/09/2021
Date Data Arrived at EDR: 11/11/2021
Date Made Active in Reports: 02/02/2022
Number of Days to Update: 83

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 01/10/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 11/23/2021
Date Data Arrived at EDR: 11/29/2021
Date Made Active in Reports: 02/11/2022
Number of Days to Update: 74

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 04/06/2021
Number of Days to Update: 82

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 10/18/2021
Date Data Arrived at EDR: 10/20/2021
Date Made Active in Reports: 01/13/2022
Number of Days to Update: 85

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 04/26/2021
Date Data Arrived at EDR: 04/28/2021
Date Made Active in Reports: 07/13/2021
Number of Days to Update: 76

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 09/29/2021
Date Data Arrived at EDR: 10/26/2021
Date Made Active in Reports: 01/13/2022
Number of Days to Update: 79

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/20/2021
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/07/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 09/29/2021
Date Data Arrived at EDR: 10/21/2021
Date Made Active in Reports: 01/13/2022
Number of Days to Update: 84

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/29/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/24/2022
Number of Days to Update: 79

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 09/23/2021
Date Data Arrived at EDR: 09/28/2021
Date Made Active in Reports: 12/15/2021
Number of Days to Update: 78

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 12/20/2021
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 10/26/2021
Date Data Arrived at EDR: 10/27/2021
Date Made Active in Reports: 01/20/2022
Number of Days to Update: 85

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 11/11/2021
Date Data Arrived at EDR: 11/12/2021
Date Made Active in Reports: 02/01/2022
Number of Days to Update: 81

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/07/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 10/29/2021
Date Made Active in Reports: 01/19/2022
Number of Days to Update: 82

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/10/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/18/2022
Number of Days to Update: 80

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/14/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

2850 NEBRASKA
2850 NEBRASKA
SELMA, CA 93662

TARGET PROPERTY COORDINATES

Latitude (North):	36.56363 - 36ˆ 33’ 49.07’’
Longitude (West):	119.62737 - 119ˆ 37’ 38.53’’
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	264868.1
UTM Y (Meters):	4049477.0
Elevation:	307 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	12012159 CONEJO, CA
Version Date:	2018
East Map:	12012237 SELMA, CA
Version Date:	2018

EDR’s GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

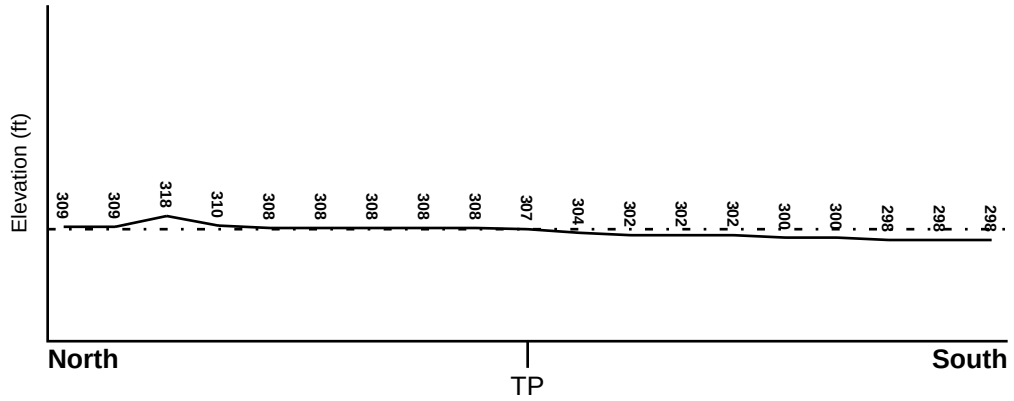
TOPOGRAPHIC INFORMATION

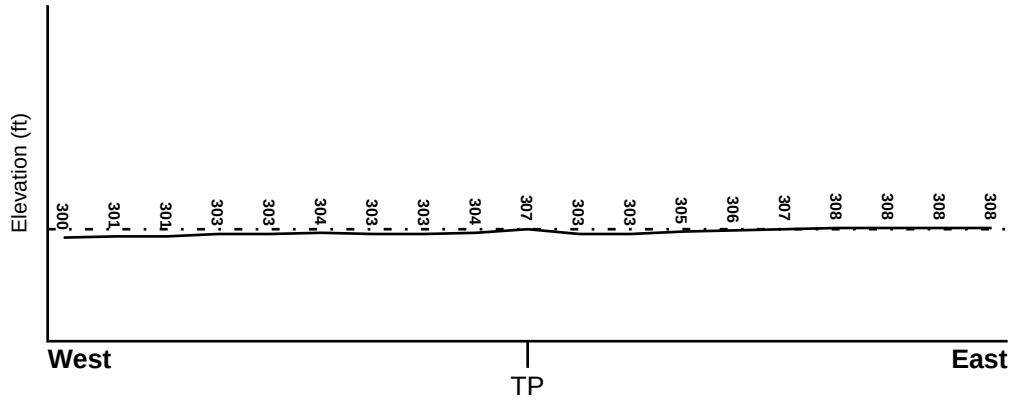
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

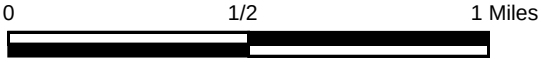
General Topographic Gradient: General South

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: 307 ft.



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06019C2650H	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06019C2675H	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
CONEJO	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

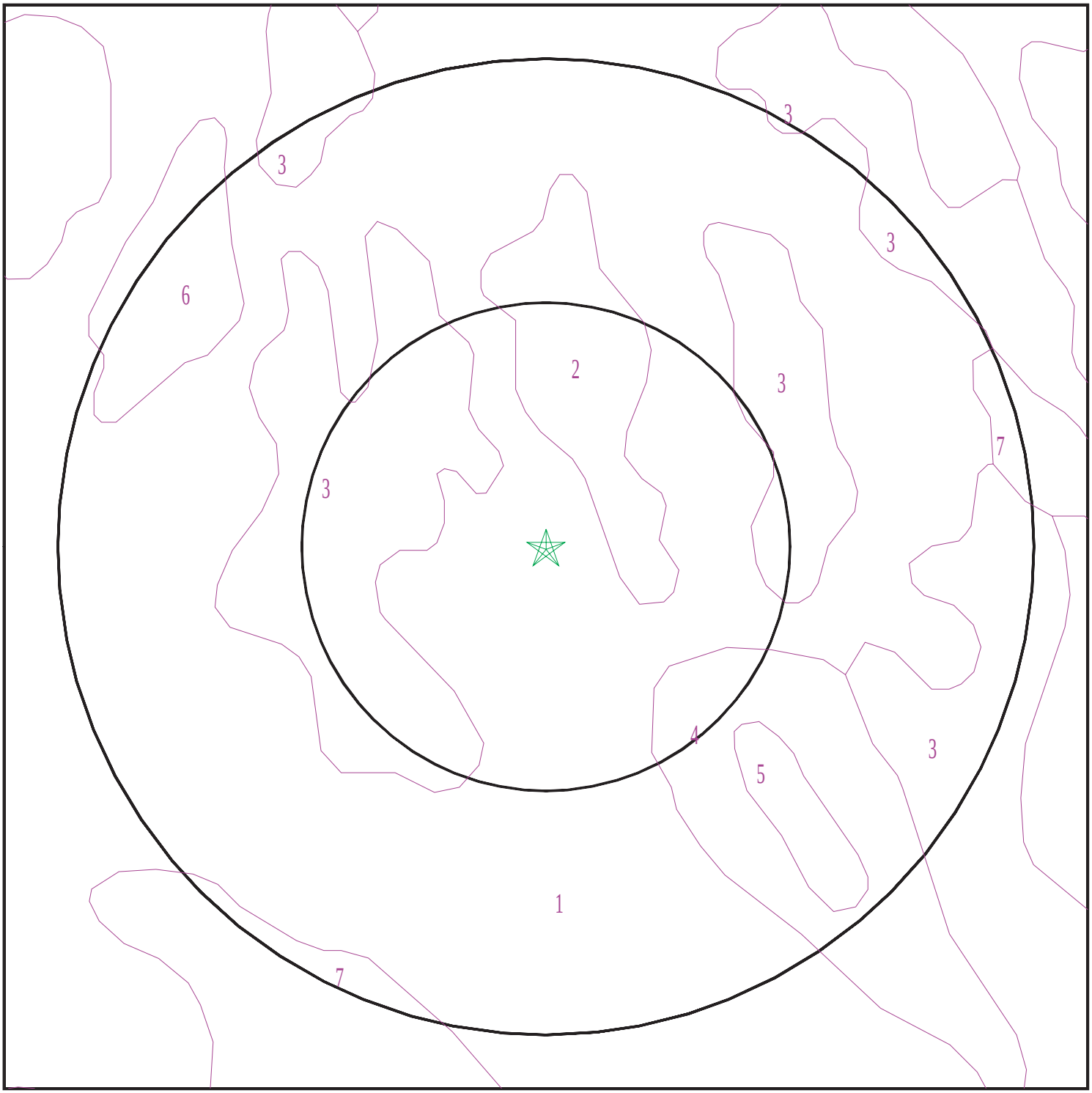
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 6898923.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME: 2850 Nebraska ADDRESS: 2850 Nebraska Selma CA 93662 LAT/LONG: 36.56363 / 119.62737	CLIENT: Haro Environmental, Inc. CONTACT: Elliot Haro INQUIRY #: 6898923.2s DATE: March 15, 2022 2:03 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: DELHI

Soil Surface Texture: loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	Not reported	Max: 141 Min: 42	Max: 7.3 Min: 6.1
2	7 inches	25 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	Not reported	Max: 141 Min: 42	Max: 7.3 Min: 6.1
3	25 inches	59 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	Not reported	Max: 141 Min: 42	Max: 7.3 Min: 6.1

Soil Map ID: 2

Soil Component Name: HESPERIA

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
2	11 inches	31 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
3	31 inches	42 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
4	42 inches	59 inches	silt	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 3

Soil Component Name: DELHI

Soil Surface Texture: sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	
Layer	**Upper**	**Lower**	**Soil Texture Class**	**AASHTO Group**	**Unified Soil**		**Soil Reaction (pH)**
1	0 inches	7 inches	sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.1
2	7 inches	25 inches	sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.1
3	25 inches	59 inches	sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.1

Soil Map ID: 4

Soil Component Name: DELHI

Soil Surface Texture: loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	Not reported	Max: 141 Min: 42	Max: 7.3 Min: 6.1
2	7 inches	25 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	Not reported	Max: 141 Min: 42	Max: 7.3 Min: 6.1
3	25 inches	59 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	Not reported	Max: 141 Min: 42	Max: 7.3 Min: 6.1

Soil Map ID: 5

Soil Component Name: DELLO

Soil Surface Texture: loamy sand

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Somewhat poorly drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 122 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 6.6
2	7 inches	35 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 6.6
3	35 inches	59 inches	sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 6.6

Soil Map ID: 6

Soil Component Name: HANFORD

Soil Surface Texture: silty clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	40 inches	59 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1
2	0 inches	16 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1
3	16 inches	40 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1

Soil Map ID: 7

Soil Component Name: HANFORD

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1
2	16 inches	72 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
C5	USGS40000174835	1/8 - 1/4 Mile SW
B7	USGS40000174838	1/8 - 1/4 Mile SE
15	USGS40000174849	1/2 - 1 Mile West
E19	USGS40000174846	1/2 - 1 Mile East
28	USGS40000174904	1/2 - 1 Mile ENE
J43	USGS40000174944	1/2 - 1 Mile NNE
44	USGS40000174782	1/2 - 1 Mile SE
K46	USGS40000174830	1/2 - 1 Mile East
51	USGS40000174876	1/2 - 1 Mile East

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
52	USGS40000174850	1/2 - 1 Mile West

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
53	CA1000410	1/2 - 1 Mile ENE

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

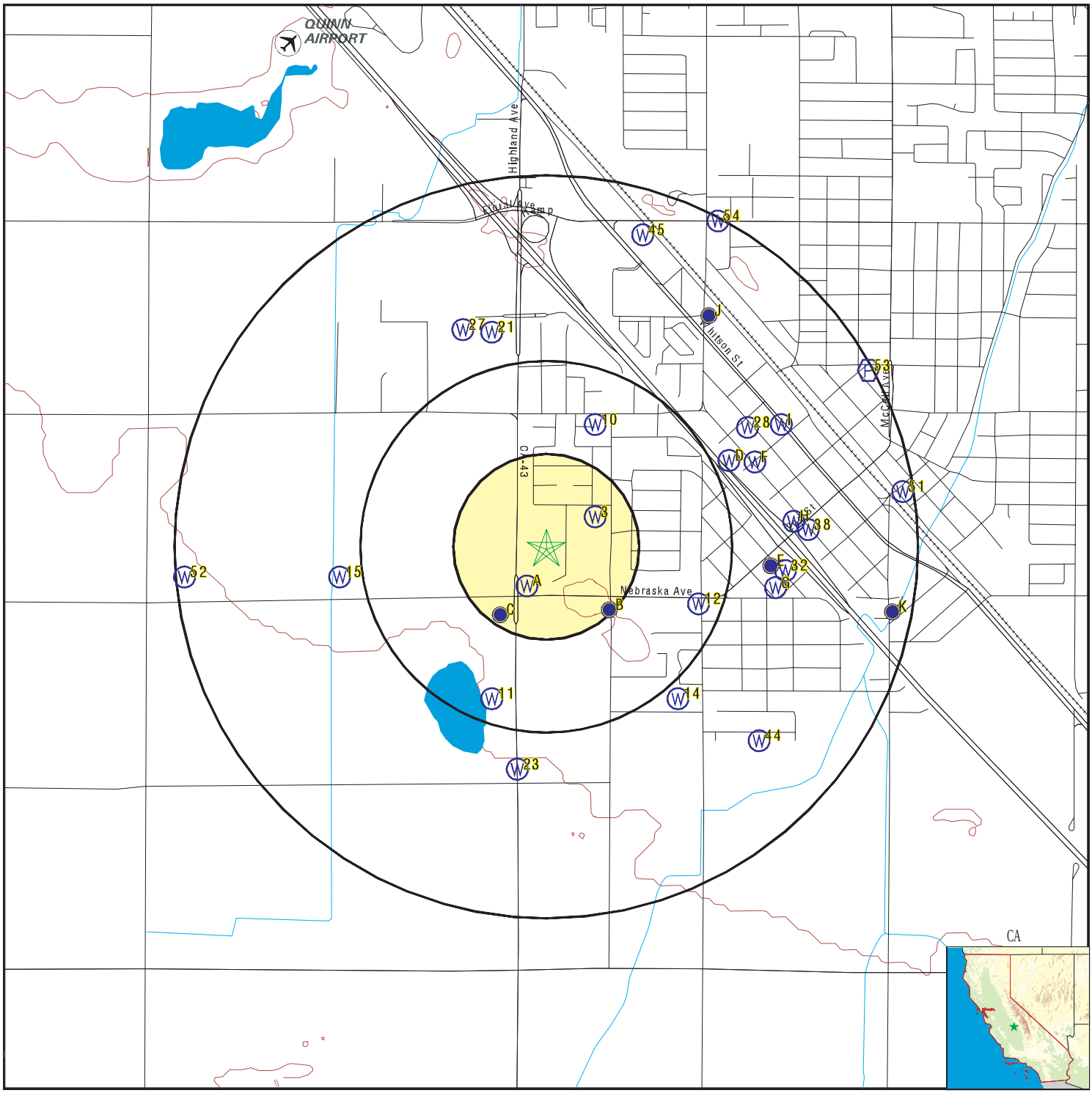
MAP ID	WELL ID	LOCATION FROM TP
A1	CADDW0000013437	0 - 1/8 Mile SSW
A2	CADDW0000017707	1/8 - 1/4 Mile SSW
3	CADWR0000007396	1/8 - 1/4 Mile ENE
B4	CADWR0000006104	1/8 - 1/4 Mile SE
C6	CADDW0000009901	1/8 - 1/4 Mile SSW
B8	13194	1/8 - 1/4 Mile SE
B9	CADDW0000014559	1/4 - 1/2 Mile SE
10	CADWR0000025294	1/4 - 1/2 Mile NNE
11	CADWR0000036065	1/4 - 1/2 Mile SSW
12	CADWR9000027977	1/4 - 1/2 Mile ESE
D13	13191	1/2 - 1 Mile ENE
14	CADWR0000034913	1/2 - 1 Mile SE
E16	CAEDF0000066225	1/2 - 1 Mile East
D17	CADDW0000013607	1/2 - 1 Mile ENE
F18	13184	1/2 - 1 Mile ENE
G20	CADDW0000018748	1/2 - 1 Mile ESE
21	CADWR0000031286	1/2 - 1 Mile NNW
F22	13190	1/2 - 1 Mile ENE
23	13222	1/2 - 1 Mile South
E24	CAEDF0000015731	1/2 - 1 Mile East
E25	CAEDF0000127246	1/2 - 1 Mile East
E26	CAEDF0000139717	1/2 - 1 Mile East
27	CADDW0000022812	1/2 - 1 Mile NNW
E29	CAEDF0000007121	1/2 - 1 Mile East
H30	CADWR0000028955	1/2 - 1 Mile East
F31	CADDW0000020330	1/2 - 1 Mile ENE
32	CAEDF0000128140	1/2 - 1 Mile East
G33	13192	1/2 - 1 Mile East
H34	CAEDF0000054175	1/2 - 1 Mile East
H35	CAEDF0000045218	1/2 - 1 Mile East
H36	CAEDF0000005325	1/2 - 1 Mile East
H37	CAEDF0000142682	1/2 - 1 Mile East
38	CAEDF0000105241	1/2 - 1 Mile East
I39	CADWR0000004864	1/2 - 1 Mile ENE
I40	CADWR0000002534	1/2 - 1 Mile ENE
J41	CADDW0000000043	1/2 - 1 Mile NE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
J42	13189	1/2 - 1 Mile NE
45	CADDW0000010924	1/2 - 1 Mile NNE
K47	13193	1/2 - 1 Mile East
K48	CADDW0000021736	1/2 - 1 Mile East
K49	CAUSGS000000382	1/2 - 1 Mile East
K50	CAUSGSN00012339	1/2 - 1 Mile East
54	13188	1/2 - 1 Mile NNE

PHYSICAL SETTING SOURCE MAP - 6898923.2s



County Boundary
Major Roads
Contour Lines
Earthquake Fault Lines
Airports
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

0 1/4 1/2 1 Miles

Groundwater Flow Direction
Indeterminate Groundwater Flow at Location
Groundwater Flow Varies at Location
Closest Hydrogeological Data
Oil, gas or related wells

N

SITE NAME: 2850 Nebraska	CLIENT: Haro Environmental, Inc.
ADDRESS: 2850 Nebraska Selma CA 93662	CONTACT: Elliot Haro INQUIRY #: 6898923.2s
LAT/LONG: 36.56363 / 119.62737	DATE: March 15, 2022 2:03 pm

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Map ID Direction Distance Elevation	Database	EDR ID Number
A1 **SSW** **0 - 1/8 Mile** **Higher**	**CA WELLS**	**CADDW0000013437**

Well ID:	1000634-001	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 01 - 2016	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1000634-001&store_num=		
GeoTracker Data:	Not Reported		

A2 **SSW** **1/8 - 1/4 Mile** **Higher**	**CA WELLS**	**CADDW0000017707**

Well ID:	1000635-001	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 01	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1000635-001&store_num=		
GeoTracker Data:	Not Reported		

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3 **ENE** **1/8 - 1/4 Mile** **Lower**	**CA WELLS**	**CADWR0000007396**

Well ID:	16S22E06K001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	16S22E06K001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=16S22E06K001M&store_num=		
GeoTracker Data:	Not Reported		

B4 **SE** **1/8 - 1/4 Mile** **Lower**	**CA WELLS**	**CADWR0000006104**

Well ID:	16S22E06Q001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	16S22E06Q001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=16S22E06Q001M&store_num=		
GeoTracker Data:	Not Reported		

Map ID Direction Distance Elevation	Database	EDR ID Number
C5 **SW** **1/8 - 1/4 Mile** **Lower**	**FED USGS**	**USGS40000174835**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	016S021E12A001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	138
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1963-10-25
Feet below surface:	40.24	Feet to sea level:	Not Reported
Note:	Not Reported		

C6 **SSW** **1/8 - 1/4 Mile** **Lower**	**CA WELLS**	**CADDW0000009901**

Well ID:	1000520-001	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 01	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1000520-001&store_num=		
GeoTracker Data:	Not Reported		

B7 **SE** **1/8 - 1/4 Mile** **Lower**	**FED USGS**	**USGS40000174838**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	016S022E07C002M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	316
Well Depth Units:	ft	Well Hole Depth:	382
Well Hole Depth Units:	ft		

Map ID Direction Distance Elevation	Database	EDR ID Number
B8 **SE** **1/8 - 1/4 Mile** **Lower**	**CA WELLS**	**13194**

Seq:	13194	Prim sta c:	16S/22E-07C02 M
Frds no:	1010024011	County:	10
District:	11	User id:	AGE
System no:	1010024	Water type:	G
Source nam:	WELL 12-01	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	363340.1	Longitude:	1193724.1
Precision:	3	Status:	AU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1010024	System nam:	California Water Service - Selma
Hqname:	CALIFORNIA WTR SERV CO	Address:	1720 NORTH FIRST STREET
City:	SAN JOSE	State:	CA
Zip:	95112	Zip ext:	Not Reported
Pop serv:	16250	Connection:	4743
Area serve:	SELMA		

Sample date:	19-DEC-17	Finding:	4.976
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	19-SEP-17	Finding:	4.822
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	18-JUL-17	Finding:	5.645
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	20-JUN-17	Finding:	5.18
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	29-MAR-17	Finding:	5.373
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-DEC-16	Finding:	5.939
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	26-JUL-16	Finding:	0.5
Chemical:	TOTAL TRIHALOMETHANES	Report units:	UG/L
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	85.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	6.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	12-JUL-16	Finding:	76.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	69.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	8.4
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	300.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	8.36
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	22.2
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	28.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	0.14
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	12-JUL-16	Finding:	0.17
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	170.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	1.5
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	30.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	2.4
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	18.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	21.
Chemical:	SULFATE	Report units:	MG/L

Dlr:	0.5		
Sample date:	21-JUN-16	Finding:	5.716
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-JUN-16	Finding:	3.615
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	16-MAR-16	Finding:	6.226
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	01-DEC-15	Finding:	4.914
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	15-SEP-15	Finding:	21.647
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-JUL-15	Finding:	7.43
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	08-JUL-15	Finding:	24.615
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-JUL-15	Finding:	21.2
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	16-JUN-15	Finding:	8.41
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	16-JUN-15	Finding:	21.5
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	16-JUN-15	Finding:	21.016
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	26-MAY-15	Finding:	7.58
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	26-MAY-15	Finding:	21.7
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	19-MAY-15	Finding:	8.19
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	19-MAY-15	Finding:	21.1
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		

Sample date:	15-APR-15	Finding:	8.24
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	15-APR-15	Finding:	20.8
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	07-APR-15	Finding:	6.87
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	07-APR-15	Finding:	19.6
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	10-MAR-15	Finding:	20.9
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	10-MAR-15	Finding:	26.861
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-MAR-15	Finding:	8.37
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	06-JAN-15	Finding:	7.92
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	06-JAN-15	Finding:	20.9
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	16-DEC-14	Finding:	25.149
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	01-DEC-14	Finding:	21.
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	01-DEC-14	Finding:	7.05
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	13-NOV-14	Finding:	21.
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	13-NOV-14	Finding:	7.46
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	07-OCT-14	Finding:	22.1
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	07-OCT-14	Finding:	8.3
Chemical:	PH, FIELD	Report units:	Not Reported

Dlr:	0.		
Sample date:	23-SEP-14	Finding:	25.148
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	16-SEP-14	Finding:	8.1
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	26-AUG-14	Finding:	22.
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	26-AUG-14	Finding:	7.59
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	05-AUG-14	Finding:	8.63
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	29-JUL-14	Finding:	26.696
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-JUL-14	Finding:	8.05
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	10-JUN-14	Finding:	7.66
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	10-JUN-14	Finding:	21.962
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-JUN-14	Finding:	7.66
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	10-JUN-14	Finding:	22.1
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	06-MAY-14	Finding:	8.26
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	11-MAR-14	Finding:	8.31
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	11-MAR-14	Finding:	26.27
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	04-MAR-14	Finding:	8.21
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		

Sample date:	05-FEB-14	Finding:	3.8
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	05-FEB-14	Finding:	8.02
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	07-JAN-14	Finding:	6.78
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	03-DEC-13	Finding:	22.086
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	03-DEC-13	Finding:	8.29
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	06-NOV-13	Finding:	7.96
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	01-OCT-13	Finding:	8.41
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	17-SEP-13	Finding:	8.39
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	17-SEP-13	Finding:	21.828
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	20-AUG-13	Finding:	8.
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	23.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	23.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-JUL-13	Finding:	160.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	18.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	24-JUL-13	Finding:	17.
Chemical:	CHLORIDE	Report units:	MG/L

Dlr:	0.		
Sample date:	24-JUL-13	Finding:	2.2
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	29.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	1.2
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	63.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	72.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	250.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	8.2
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	59.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	02-JUL-13	Finding:	6.97
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	02-JUL-13	Finding:	20.116
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	04-JUN-13	Finding:	8.28
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	07-MAY-13	Finding:	7.25
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	23-APR-13	Finding:	7.24
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	05-MAR-13	Finding:	7.3
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	05-FEB-13	Finding:	7.7
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		

Sample date:	09-JAN-13	Finding:	7.77
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	17-DEC-12	Finding:	20.387
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	04-DEC-12	Finding:	7.41
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	19-NOV-12	Finding:	0.34
Chemical:	RADIUM 226 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	19-NOV-12	Finding:	3.
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	19-NOV-12	Finding:	0.17
Chemical:	RADIUM 226 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	19-NOV-12	Finding:	2.4
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	19-NOV-12	Finding:	2.2
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	19-NOV-12	Finding:	0.81
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	19-NOV-12	Finding:	7.06
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	16-OCT-12	Finding:	7.39
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	18-SEP-12	Finding:	7.78
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	15-AUG-12	Finding:	0.68
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	15-AUG-12	Finding:	0.34
Chemical:	RADIUM 226 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	15-AUG-12	Finding:	3.
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	15-AUG-12	Finding:	0.13
Chemical:	RADIUM 226 COUNTING ERROR	Report units:	PCI/L

Dlr:	0.		
Sample date:	15-AUG-12	Finding:	2.2
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	08-AUG-12	Finding:	7.99
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	08-AUG-12	Finding:	1.8
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	16-JUL-12	Finding:	7.09
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	23-MAY-12	Finding:	2.2
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-MAY-12	Finding:	0.13
Chemical:	RADIUM 226 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-MAY-12	Finding:	3.
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-MAY-12	Finding:	1.5
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	23-MAY-12	Finding:	0.6
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-MAY-12	Finding:	0.33
Chemical:	RADIUM 226 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	17-APR-12	Finding:	8.3
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	28-FEB-12	Finding:	2.4
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	28-FEB-12	Finding:	0.14
Chemical:	RADIUM 226 COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	28-FEB-12	Finding:	3.
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	28-FEB-12	Finding:	0.36
Chemical:	RADIUM 226 MDA95	Report units:	PCI/L
Dlr:	0.		

Sample date:	28-FEB-12	Finding:	0.76
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	28-FEB-12	Finding:	1.8
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	17-JAN-12	Finding:	8.06
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		

B9
SE **CA WELLS** **CADDW0000014559**
1/4 - 1/2 Mile
Lower

Well ID:	1010024-011	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 12-01 - RAW INAC2014	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010024-011&store_num=		
GeoTracker Data:	Not Reported		

10
NNE **CA WELLS** **CADWR0000025294**
1/4 - 1/2 Mile
Lower

Well ID:	16S22E06G001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	16S22E06G001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=16S22E06G001M&store_num=		
GeoTracker Data:	Not Reported		

11
SSW **CA WELLS** **CADWR0000036065**
1/4 - 1/2 Mile
Lower

Well ID:	16S22E07C002M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	16S22E07C002M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=16S22E07C002M&store_num=		
GeoTracker Data:	Not Reported		

12
ESE **CA WELLS** **CADWR9000027977**
1/4 - 1/2 Mile
Lower

State Well #:	16S22E07C001M	Station ID:	18258
Well Name:	Not Reported	Basin Name:	Kings

Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

D13
ENE
1/2 - 1 Mile
Higher

CA WELLS 13191

Seq:	13191	Prim sta c:	16S/22E-06K02 M
Frds no:	1010024022	County:	10
District:	11	User id:	AGE
System no:	1010024	Water type:	G
Source nam:	WELL 19-01	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	363401.6	Longitude:	1193705.8
Precision:	3	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1010024	System nam:	California Water Service - Selma
Hqname:	CALIFORNIA WTR SERV CO	Address:	1720 NORTH FIRST STREET
City:	SAN JOSE	State:	CA
Zip:	95112	Zip ext:	Not Reported
Pop serv:	16250	Connection:	4743
Area serve:	SELMA		

Sample date:	18-JUL-17	Finding:	1.876
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	12-JUL-16	Finding:	88.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		

Sample date:	12-JUL-16	Finding:	2.9
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		

Sample date:	12-JUL-16	Finding:	8.8
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		

Sample date:	12-JUL-16	Finding:	8.4
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		

Sample date:	12-JUL-16	Finding:	21.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	12-JUL-16	Finding:	11.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	12-JUL-16	Finding:	27.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		

Sample date:	12-JUL-16	Finding:	1.9

Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-JUL-16	Finding:	78.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	66.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	8.9
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	160.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	8.91
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	22.4
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-JUL-16	Finding:	0.28
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	08-JUL-15	Finding:	8.54
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	08-JUL-15	Finding:	21.7
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	02-JUN-15	Finding:	21.3
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	02-JUN-15	Finding:	8.52
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	05-MAY-15	Finding:	21.4
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	05-MAY-15	Finding:	8.18
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	07-APR-15	Finding:	20.7
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		

Sample date:	07-APR-15	Finding:	8.6
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	10-MAR-15	Finding:	8.7
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	10-MAR-15	Finding:	21.4
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	11-FEB-15	Finding:	7.39
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	11-FEB-15	Finding:	22.
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	27-JAN-15	Finding:	8.61
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	27-JAN-15	Finding:	21.6
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	09-DEC-14	Finding:	8.83
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	09-DEC-14	Finding:	21.4
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	04-NOV-14	Finding:	8.52
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	04-NOV-14	Finding:	21.3
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	21-OCT-14	Finding:	7.19
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	21-OCT-14	Finding:	21.2
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	21-OCT-14	Finding:	1.6
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	16-SEP-14	Finding:	7.12
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	14-AUG-14	Finding:	7.73
Chemical:	PH, FIELD	Report units:	Not Reported

Dlr:	0.		
Sample date:	22-JUL-14	Finding:	8.1
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	10-JUN-14	Finding:	8.41
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	13-MAY-14	Finding:	7.65
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	04-MAR-14	Finding:	8.39
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-FEB-14	Finding:	8.78
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	14-JAN-14	Finding:	6.89
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	10-DEC-13	Finding:	8.58
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	25-NOV-13	Finding:	8.07
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	19-NOV-13	Finding:	7.75
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	15-OCT-13	Finding:	8.15
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	24-SEP-13	Finding:	8.81
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	06-AUG-13	Finding:	8.94
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	22.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	0.9
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	3.
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		

Sample date:	24-JUL-13	Finding:	2.5
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	6.7
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-JUL-13	Finding:	90.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	4.3
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	24-JUL-13	Finding:	7.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	24-JUL-13	Finding:	6.6
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	20.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	9.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	4.3
Chemical:	CARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	45.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	44.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	130.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	24-JUL-13	Finding:	8.7
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	15-JUL-13	Finding:	8.27
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	11-JUN-13	Finding:	8.28
Chemical:	PH, FIELD	Report units:	Not Reported

Dlr:	0.		
Sample date:	28-MAY-13	Finding:	7.78
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	30-APR-13	Finding:	8.7
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	19-MAR-13	Finding:	7.8
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-FEB-13	Finding:	8.24
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	09-JAN-13	Finding:	8.29
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	18-DEC-12	Finding:	8.12
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	20-NOV-12	Finding:	8.27
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	16-OCT-12	Finding:	7.78
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	25-SEP-12	Finding:	8.19
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	08-AUG-12	Finding:	8.311
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-AUG-12	Finding:	8.41
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	16-JUL-12	Finding:	8.76
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	17-APR-12	Finding:	8.11
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	17-JAN-12	Finding:	8.11
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		

Map ID Direction Distance Elevation	Database	EDR ID Number
14 **SE** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADWR0000034913**

Well ID:	16S22E07A001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	16S22E07A001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=16S22E07A001M&store_num=		
GeoTracker Data:	Not Reported		

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15 **West** **1/2 - 1 Mile** **Lower**	**FED USGS**	**USGS40000174849**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	016S021E01Q001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19790124	Well Depth:	143
Well Depth Units:	ft	Well Hole Depth:	143
Well Hole Depth Units:	ft		

E16 **East** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CAEDF0000066225**

Well ID:	T0601944801-MW6	Well Type:	MONITORING
Source:	EDF	Other Name:	MW6
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0601944801&assigned_name=MW6&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0601944801&assigned_name=MW6		

D17 **ENE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CADDW0000013607**

Well ID:	1010024-022	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 19-01 - RAW	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010024-022&store_num=		
GeoTracker Data:	Not Reported		

Map ID Direction Distance Elevation	Database	EDR ID Number
F18 **ENE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**13184**

Seq:	13184	Prim sta c:	16S/22E-05E01 M
Frds no:	1010024002	County:	10
District:	11	User id:	AGE
System no:	1010024	Water type:	G
Source nam:	WELL 05-02 - ABANDONED	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	363400.0	Longitude:	1193700.0
Precision:	8	Status:	AB
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1010024	System nam:	California Water Service - Selma
Hqname:	CALIFORNIA WTR SERV CO	Address:	1720 NORTH FIRST STREET
City:	SAN JOSE	State:	CA
Zip:	95112	Zip ext:	Not Reported
Pop serv:	16250	Connection:	4743
Area serve:	SELMA		

E19 **East** **1/2 - 1 Mile** **Higher**	**FED USGS**	**USGS40000174846**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	016S022E06Q001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19270101	Well Depth:	315
Well Depth Units:	ft	Well Hole Depth:	315
Well Hole Depth Units:	ft		

G20 **ESE** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADDW0000018748**

Well ID:	1010024-004	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 06-01 - RAW	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010024-004&store_num=		
GeoTracker Data:	Not Reported		

Map ID Direction Distance Elevation	Database	EDR ID Number
21 **NNW** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CADWR0000031286**

Well ID:	16S22E06C001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	16S22E06C001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=16S22E06C001M&store_num=		
GeoTracker Data:	Not Reported		

F22 **ENE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**13190**

Seq:	13190	Prim sta c:	16S/22E-06K01 M
Frds no:	1010024009	County:	10
District:	11	User id:	AGE
System no:	1010024	Water type:	G
Source nam:	WELL 10-01	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	363401.3	Longitude:	1193659.4
Precision:	3	Status:	AU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1010024	System nam:	California Water Service - Selma
Hqname:	CALIFORNIA WTR SERV CO	Address:	1720 NORTH FIRST STREET
City:	SAN JOSE	State:	CA
Zip:	95112	Zip ext:	Not Reported
Pop serv:	16250	Connection:	4743
Area serve:	SELMA		

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23 **South** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**13222**

Seq:	13222	Prim sta c:	16S/23E-07H01 M
Frds no:	1000315001	County:	10
District:	40	User id:	10C
System no:	1000315	Water type:	G
Source nam:	SCHOOL WELL	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	363318.0	Longitude:	1193740.0
Precision:	3	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1000315	System nam:	Clay Joint Union Elementry School
Hqname:	Not Reported	Address:	Not Reported
City:	Not Reported	State:	Not Reported
Zip:	Not Reported	Zip ext:	Not Reported

Pop serv:	0	Connection:	0
Area serve:	Not Reported		

E24
East
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000015731**

Well ID:	T0601944801-MW5	Well Type:	MONITORING
Source:	EDF	Other Name:	MW5
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0601944801&assigned_name=MW5&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0601944801&assigned_name=MW5		

E25
East
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000127246**

Well ID:	T0601944801-MW2	Well Type:	MONITORING
Source:	EDF	Other Name:	MW2
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0601944801&assigned_name=MW2&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0601944801&assigned_name=MW2		

E26
East
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000139717**

Well ID:	T0601944801-MW3	Well Type:	MONITORING
Source:	EDF	Other Name:	MW3
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0601944801&assigned_name=MW3&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0601944801&assigned_name=MW3		

27
NNW
1/2 - 1 Mile
Higher

CA WELLS **CADDW0000022812**

Well ID:	1010024-023	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 20-01 - RAW	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010024-023&store_num=		
GeoTracker Data:	Not Reported		

Map ID Direction Distance Elevation	Database	EDR ID Number
28 **ENE** **1/2 - 1 Mile** **Higher**	**FED USGS**	**USGS40000174904**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	016S022E06K001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19500909	Well Depth:	292
Well Depth Units:	ft	Well Hole Depth:	306
Well Hole Depth Units:	ft		

E29 **East** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CAEDF0000007121**

Well ID:	T0601944801-MW1	Well Type:	MONITORING
Source:	EDF	Other Name:	MW1
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0601944801&assigned_name=MW1&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0601944801&assigned_name=MW1		

H30 **East** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CADWR0000028955**

Well ID:	16S22E05M001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	16S22E05M001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=16S22E05M001M&store_num=		
GeoTracker Data:	Not Reported		

F31 **ENE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CADDW0000020330**

Well ID:	1010024-009	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 10-01 - RAW	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010024-009&store_num=		
GeoTracker Data:	Not Reported		

Map ID Direction Distance Elevation	Database	EDR ID Number
32 **East** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CAEDF0000128140**

Well ID:	T0601944801-MW4	Well Type:	MONITORING
Source:	EDF	Other Name:	MW4
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0601944801&assigned_name=MW4&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0601944801&assigned_name=MW4		

G33 **East** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**13192**

Seq:	13192	Prim sta c:	16S/22E-06Q01 M
Frds no:	1010024004	County:	10
District:	11	User id:	AGE
System no:	1010024	Water type:	G
Source nam:	WELL 06-01	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	363344.8	Longitude:	1193653.6
Precision:	3	Status:	AU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	1010024	System nam:	California Water Service - Selma
Hqname:	CALIFORNIA WTR SERV CO	Address:	1720 NORTH FIRST STREET
City:	SAN JOSE	State:	CA
Zip:	95112	Zip ext:	Not Reported
Pop serv:	16250	Connection:	4743
Area serve:	SELMA		
Sample date:	15-AUG-17	Finding:	150.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	15-AUG-17	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	15-AUG-17	Finding:	0.12
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	15-AUG-17	Finding:	270.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	15-AUG-17	Finding:	28.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	15-AUG-17	Finding:	34.

Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	15-AUG-17	Finding:	3.
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	15-AUG-17	Finding:	34.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	15-AUG-17	Finding:	440.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	15-AUG-17	Finding:	7.4
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	15-AUG-17	Finding:	120.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	15-AUG-17	Finding:	3.6
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	15-AUG-17	Finding:	3.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	15-AUG-17	Finding:	130.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	15-AUG-17	Finding:	44.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	15-AUG-17	Finding:	5.1
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	24-AUG-16	Finding:	4.124
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-OCT-15	Finding:	3.
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	13-OCT-15	Finding:	0.85
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	13-OCT-15	Finding:	3.4
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	13-OCT-15	Finding:	6.8
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		

Sample date:	13-OCT-15	Finding:	6.5
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	13-OCT-15	Finding:	21.
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	07-OCT-15	Finding:	12.38
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	14-JUL-15	Finding:	21.2
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	14-JUL-15	Finding:	6.87
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	02-JUN-15	Finding:	8.32
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	02-JUN-15	Finding:	21.2
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	19-MAY-15	Finding:	7.68
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	19-MAY-15	Finding:	20.7
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	15-APR-15	Finding:	20.4
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	15-APR-15	Finding:	7.9
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	03-MAR-15	Finding:	20.4
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	03-MAR-15	Finding:	7.74
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	11-FEB-15	Finding:	7.08
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	11-FEB-15	Finding:	20.8
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	13-JAN-15	Finding:	7.95
Chemical:	PH, FIELD	Report units:	Not Reported

Dlr:	0.		
Sample date:	13-JAN-15	Finding:	20.8
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	09-DEC-14	Finding:	21.2
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	09-DEC-14	Finding:	7.81
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	04-NOV-14	Finding:	8.
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	04-NOV-14	Finding:	21.2
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	07-OCT-14	Finding:	120.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	07-OCT-14	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	07-OCT-14	Finding:	0.11
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	07-OCT-14	Finding:	0.22
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	07-OCT-14	Finding:	270.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	07-OCT-14	Finding:	28.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	07-OCT-14	Finding:	35.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	07-OCT-14	Finding:	3.1
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-OCT-14	Finding:	32.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-OCT-14	Finding:	5.2
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	07-OCT-14	Finding:	22.2
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	07-OCT-14	Finding:	8.06
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	07-OCT-14	Finding:	22.2
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	07-OCT-14	Finding:	8.06
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	07-OCT-14	Finding:	450.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	07-OCT-14	Finding:	8.06
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	07-OCT-14	Finding:	150.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	07-OCT-14	Finding:	140.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	07-OCT-14	Finding:	47.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-SEP-14	Finding:	7.84
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	09-SEP-14	Finding:	2.6
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	14-AUG-14	Finding:	7.28
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	14-AUG-14	Finding:	23.8
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	05-AUG-14	Finding:	7.83
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	15-JUL-14	Finding:	8.3
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	10-JUN-14	Finding:	7.82
Chemical:	PH, FIELD	Report units:	Not Reported

Dlr:	0.		
Sample date:	06-MAY-14	Finding:	7.95
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	04-MAR-14	Finding:	8.15
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	05-FEB-14	Finding:	6.45
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	14-JAN-14	Finding:	7.48
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	03-DEC-13	Finding:	8.28
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	19-NOV-13	Finding:	7.81
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	08-OCT-13	Finding:	7.49
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	10-SEP-13	Finding:	8.03
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-AUG-13	Finding:	8.16
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	23-JUL-13	Finding:	8.4
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	11-JUN-13	Finding:	7.81
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	23-MAY-13	Finding:	7.24
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	23-APR-13	Finding:	7.72
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-MAR-13	Finding:	8.12
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	12-FEB-13	Finding:	7.96
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		

Sample date:	09-JAN-13	Finding:	8.09
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	18-DEC-12	Finding:	8.33
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	19-NOV-12	Finding:	6.92
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	23-OCT-12	Finding:	0.85
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-OCT-12	Finding:	3.
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-OCT-12	Finding:	3.1
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	23-OCT-12	Finding:	9.1
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	10-OCT-12	Finding:	9.9
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	02-OCT-12	Finding:	8.07
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	18-SEP-12	Finding:	7.41
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	07-AUG-12	Finding:	7.32
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	16-JUL-12	Finding:	6.9
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	03-APR-12	Finding:	6.78
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	17-JAN-12	Finding:	7.95
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		

Map ID Direction Distance Elevation	Database	EDR ID Number
H34 **East** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CAEDF0000054175**

Well ID:	T0601900073-MW/B-5	Well Type:	MONITORING
Source:	EDF	Other Name:	MW/B-5
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0601900073&assigned_name=MW/B-5&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0601900073&assigned_name=MW/B-5		

H35 **East** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CAEDF0000045218**

Well ID:	T0601900073-MW/B-6	Well Type:	MONITORING
Source:	EDF	Other Name:	MW/B-6
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0601900073&assigned_name=MW/B-6&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0601900073&assigned_name=MW/B-6		

H36 **East** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CAEDF0000005325**

Well ID:	T0601900073-MW/B-7	Well Type:	MONITORING
Source:	EDF	Other Name:	MW/B-7
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0601900073&assigned_name=MW/B-7&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0601900073&assigned_name=MW/B-7		

H37 **East** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CAEDF0000142682**

Well ID:	T0601900073-MW/B-8	Well Type:	MONITORING
Source:	EDF	Other Name:	MW/B-8
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0601900073&assigned_name=MW/B-8&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0601900073&assigned_name=MW/B-8		

Map ID Direction Distance Elevation	Database	EDR ID Number
38 **East** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CAEDF0000105241**

Well ID:	T0601900073-MW/B-9	Well Type:	MONITORING
Source:	EDF	Other Name:	MW/B-9
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0601900073&assigned_name=MW/B-9&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0601900073&assigned_name=MW/B-9		

I39 **ENE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CADWR0000004864**

Well ID:	16S22E05E001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	16S22E05E001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=16S22E05E001M&store_num=		
GeoTracker Data:	Not Reported		

I40 **ENE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CADWR0000002534**

Well ID:	16S22E05E002M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	16S22E05E002M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=16S22E05E002M&store_num=		
GeoTracker Data:	Not Reported		

J41 **NE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CADDW0000000043**

Well ID:	1010024-008	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 09-01 - DESTROYED (2011)		
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010024-008&store_num=		
GeoTracker Data:	Not Reported		

Map ID Direction Distance Elevation	Database	EDR ID Number
J42 **NE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**13189**

Seq:	13189	Prim sta c:	16S/22E-06G01 M
Frds no:	1010024008	County:	10
District:	11	User id:	AGE
System no:	1010024	Water type:	G
Source nam:	WELL 09-01	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	363421.2	Longitude:	1193705.5
Precision:	3	Status:	AU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1010024	System nam:	California Water Service - Selma
Hqname:	CALIFORNIA WTR SERV CO	Address:	1720 NORTH FIRST STREET
City:	SAN JOSE	State:	CA
Zip:	95112	Zip ext:	Not Reported
Pop serv:	16250	Connection:	4743
Area serve:	SELMA		

J43 **NNE** **1/2 - 1 Mile** **Higher**	**FED USGS**	**USGS40000174944**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	016S022E06G001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	172
Well Depth Units:	ft	Well Hole Depth:	204
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1963-10-29
Feet below surface:	38.00	Feet to sea level:	Not Reported
Note:	Not Reported		

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44 **SE** **1/2 - 1 Mile** **Lower**	**FED USGS**	**USGS40000174782**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	016S022E07G001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		

Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	290
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1963-03-18
Feet below surface:	44.73	Feet to sea level:	Not Reported
Note:	Not Reported		

45
NNE
1/2 - 1 Mile
Higher

CA WELLS **CADDW0000010924**

Well ID:	1010024-016	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 15-01 - INACTIVE	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010024-016&store_num=		
GeoTracker Data:	Not Reported		

K46
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000174830**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	016S022E07A001M	Type:	Well
Description:	GAMA KITKAT INTERMEDIATE	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19340101	Well Depth:	228
Well Depth Units:	ft	Well Hole Depth:	292
Well Hole Depth Units:	ft		

K47
East
1/2 - 1 Mile
Higher

CA WELLS **13193**

Seq:	13193	Prim sta c:	16S/22E-07A01 M
Frds no:	1010024007	County:	10
District:	11	User id:	AGE
System no:	1010024	Water type:	G
Source nam:	WELL 08-01	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	363340.5	Longitude:	1193635.2
Precision:	3	Status:	AU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1010024	System nam:	California Water Service - Selma

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Hqname:	CALIFORNIA WTR SERV CO	Address:	1720 NORTH FIRST STREET
City:	SAN JOSE	State:	CA
Zip:	95112	Zip ext:	Not Reported
Pop serv:	16250	Connection:	4743
Area serve:	SELMA		

Sample date:	13-MAY-14	Finding:	6.21
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	01-APR-14	Finding:	6.22
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	25-MAR-14	Finding:	7.03
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	11-MAR-14	Finding:	8.45
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	10-MAR-14	Finding:	8.44
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	24-APR-13	Finding:	8.2
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	24-APR-13	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	24-APR-13	Finding:	0.61
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	24-APR-13	Finding:	4.7
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-APR-13	Finding:	130.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	24-APR-13	Finding:	3.1
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	24-APR-13	Finding:	5.6
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	24-APR-13	Finding:	4.3
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	24-APR-13	Finding:	14.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	24-APR-13	Finding:	3.5
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	24-APR-13	Finding:	19.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	24-APR-13	Finding:	1.29
Chemical:	BROMOFORM (THM)	Report units:	UG/L
Dlr:	1.		
Sample date:	24-APR-13	Finding:	1.8
Chemical:	TOTAL TRIHALOMETHANES	Report units:	UG/L
Dlr:	0.		
Sample date:	24-APR-13	Finding:	21.
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	24-APR-13	Finding:	8.12
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	24-APR-13	Finding:	5.045
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-APR-13	Finding:	180.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	24-APR-13	Finding:	82.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	24-APR-13	Finding:	100.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	24-APR-13	Finding:	62.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	24-APR-12	Finding:	0.51
Chemical:	RADIUM 228 MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	24-APR-12	Finding:	3.
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	24-APR-12	Finding:	3.
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	24-APR-12	Finding:	3.5
Chemical:	URANIUM (PCI/L)	Report units:	PCI/L
Dlr:	1.		
Sample date:	24-APR-12	Finding:	5.9
Chemical:	GROSS ALPHA	Report units:	PCI/L

Dlr:	3.		
Sample date:	24-APR-12	Finding:	3.
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	18-APR-12	Finding:	7.54
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	18-APR-12	Finding:	19.4
Chemical:	SOURCE TEMPERATURE C	Report units:	C
Dlr:	0.		
Sample date:	18-APR-12	Finding:	7.54
Chemical:	PH, FIELD	Report units:	Not Reported
Dlr:	0.		
Sample date:	18-APR-12	Finding:	5.756
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

K48
East
1/2 - 1 Mile
Higher

CA WELLS **CADDW0000021736**

Well ID:	1010024-007	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 08-01 - RAW INAC2015	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010024-007&store_num=		
GeoTracker Data:	Not Reported		

K49
East
1/2 - 1 Mile
Higher

CA WELLS **CAUSGS000000382**

K50
East
1/2 - 1 Mile
Higher

CA WELLS **CAUSGSN00012339**

Well ID:	USGS-363339119363501	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-363339119363501	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-363339119363501&store_num=		
GeoTracker Data:	Not Reported		

Map ID Direction Distance Elevation	Database	EDR ID Number
51 **East** **1/2 - 1 Mile** **Higher**	**FED USGS**	**USGS40000174876**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	016S022E05M001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19550211	Well Depth:	228
Well Depth Units:	ft	Well Hole Depth:	264
Well Hole Depth Units:	ft		

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52 **West** **1/2 - 1 Mile** **Lower**	**FED USGS**	**USGS40000174850**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	016S021E01N001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	176
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1963-10-24
Feet below surface:	52.88	Feet to sea level:	Not Reported
Note:	Not Reported		

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53 **ENE** **1/2 - 1 Mile** **Higher**	**FRDS PWS**	**CA1000410**

Epa region:	09	State:	CA
Pwsid:	CA1000410	Pwsname:	SHORTYS PLACE
Cityserved:	Not Reported	Stateserved:	CA
Zipserved:	Not Reported	Fipscounty:	06019
Status:	Active	Retpopsrvd:	40
Pwssvcconn:	17	Psource longname:	Groundwater
Pwstype:	CWS	Owner:	Private
Contact:	ADKINS, CARL	Contactorgname:	ADKINS, CARL
Contactphone:	559-859-3113	Contactaddress1:	9533 S. Golden State Blvd., Apt #4
Contactaddress2:	Not Reported	Contactcity:	SELMA
Contactstate:	CA	Contactzip:	93662
Pwsactivitycode:	A		

PWS ID:	CA1000410	PWS name:	SHORTY'S PLACE
Address:	Not Reported	Care of:	Not Reported
City:	SELMA	State:	CA
Zip:	93662	Owner:	SHORTY'S PLACE
Source code:	Ground water	Population:	51

PWS ID:	CA1000410	PWS type:	System Owner/Responsible Party
PWS name:	BILL ADKINS	PWS address:	Not Reported
PWS city:	SELMA	PWS state:	CA
PWS zip:	93662	PWS name:	SHORTYS PLACE
PWS type code:	C	Retail population served:	51
Contact:	CARL ATKINS	Contact address:	8860 E. Dinuba Ave, Apt D
Contact address:	Selma	Contact city:	CA
Contact state:	93	Contact zip:	5598967213
Contact telephone:	Not Reported		

PWS ID:	CA1000410	Activity status:	Active
Date system activated:	7706	Date system deactivated:	Not Reported
Retail population:	00000059	System name:	SHORTY'S PLACE
System address:	BILL ADKINS	System address:	9533 S GOLDEN STATE
System city:	SELMA	System state:	CA
System zip:	93662		

Population served:	Under 101 Persons	Treatment:	Untreated

Latitude:	363414	Longitude:	1193639

Violation id:	1023015	Orig code:	S
State:	CA	Violation Year:	2009
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/2009
Cmp edt:	10/31/2009		

Violation id:	1023017	Orig code:	S
State:	CA	Violation Year:	2010
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2010
Cmp edt:	Not Reported		

Violation id:	1023018	Orig code:	S
State:	CA	Violation Year:	2010
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	09/01/2010
Cmp edt:	09/30/2010		

Violation id:	1023019	Orig code:	S
State:	CA	Violation Year:	2010
Contamination code:	1040	Contamination Name:	Nitrate
Violation code:	03	Violation name:	Monitoring, Regular
Rule code:	331	Rule name:	Nitrates
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	01/01/2010
Cmp edt:	12/31/2010		

Violation id:	1123020	Orig code:	S
State:	CA	Violation Year:	2011
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2011
Cmp edt:	07/31/2011		

Violation id:	1223021	Orig code:	S
State:	CA	Violation Year:	2011
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	25	Violation name:	Monitoring, Repeat Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/2011
Cmp edt:	10/31/2011		

Violation id:	1223022	Orig code:	S
State:	CA	Violation Year:	2011
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	12/01/2011
Cmp edt:	12/31/2011		

Violation id:	1223023	Orig code:	S
State:	CA	Violation Year:	2012
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	01/01/2012
Cmp edt:	01/31/2012		

Violation id:	1223024	Orig code:	S
State:	CA	Violation Year:	2012
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	02/01/2012
Cmp edt:	02/29/2012		

Violation id:	1223025	Orig code:	S
State:	CA	Violation Year:	2012
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	03/01/2012
Cmp edt:	03/31/2012		

Violation id:	1223026	Orig code:	S
State:	CA	Violation Year:	2012
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2012
Cmp edt:	07/31/2012		

Violation id:	1223027	Orig code:	S
State:	CA	Violation Year:	2012
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	08/01/2012
Cmp edt:	08/31/2012		

Violation id:	1223028	Orig code:	S
State:	CA	Violation Year:	2012
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	09/01/2012
Cmp edt:	09/30/2012		

Violation id:	1223029	Orig code:	S
State:	CA	Violation Year:	2012
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/2012
Cmp edt:	10/31/2012		

Violation id:	1223030	Orig code:	S
State:	CA	Violation Year:	2012
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	11/01/2012
Cmp edt:	11/30/2012		

Violation id:	1223031	Orig code:	S
State:	CA	Violation Year:	2012
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2012
Cmp edt:	Not Reported		

Violation id:	1223032	Orig code:	S
State:	CA	Violation Year:	2011
Contamination code:	5000	Contamination Name:	Lead and Copper Rule
Violation code:	52	Violation name:	Follow-up Or Routine LCR Tap M/R
Rule code:	350	Rule name:	LCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/2011
Cmp edt:	Not Reported		

Violation id:	1223033	Orig code:	S
State:	CA	Violation Year:	2012
Contamination code:	1040	Contamination Name:	Nitrate
Violation code:	03	Violation name:	Monitoring, Regular
Rule code:	331	Rule name:	Nitrates
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	01/01/2012
Cmp edt:	12/31/2012		

Violation id:	812001	Orig code:	S
State:	CA	Violation Year:	2007
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	12/01/2007
Cmp edt:	12/31/2007		

Violation id:	812002	Orig code:	S
State:	CA	Violation Year:	2007
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	08/01/2007
Cmp edt:	08/31/2007		

Violation id:	812004	Orig code:	S
State:	CA	Violation Year:	2007
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/2007
Cmp edt:	10/31/2007		

Violation id:	812005	Orig code:	S
State:	CA	Violation Year:	2007
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	11/01/2007
Cmp edt:	11/30/2007		

Violation id:	812006	Orig code:	S
State:	CA	Violation Year:	2008
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	02/01/2008
Cmp edt:	02/29/2008		

Violation id:	812007	Orig code:	S
State:	CA	Violation Year:	2008
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	03/01/2008
Cmp edt:	03/31/2008		

Violation id:	923008	Orig code:	S
State:	CA	Violation Year:	2008
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	12/01/2008
Cmp edt:	12/31/2008		

Violation id:	923009	Orig code:	S
State:	CA	Violation Year:	2009
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	04/01/2009
Cmp edt:	04/30/2009		

Violation id:	923010	Orig code:	S
State:	CA	Violation Year:	2009
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	22	Violation name:	MCL, Monthly (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	06/01/2009
Cmp edt:	06/30/2009		

Violation id:	923011	Orig code:	S
State:	CA	Violation Year:	2009
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2009
Cmp edt:	07/31/2009		

Violation id:	923012	Orig code:	S
State:	CA	Violation Year:	2009
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	08/01/2009
Cmp edt:	08/31/2009		

Violation id:	923013	Orig code:	S
State:	CA	Violation Year:	2009
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2009
Cmp edt:	Not Reported		

Violation id:	923014	Orig code:	S
State:	CA	Violation Year:	2009
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	09/01/2009
Cmp edt:	09/30/2009		

Violation id:	923016	Orig code:	S
State:	CA	Violation Year:	2009
Contamination code:	7500	Contamination Name:	Public Notice
Violation code:	75	Violation name:	PN Violation for NPDWR Violation
Rule code:	410	Rule name:	PN rule
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2009
Cmp edt:	Not Reported		

Violation id:	95V0001	Orig code:	F
State:	CA	Violation Year:	1993
Contamination code:	5000	Contamination Name:	Lead and Copper Rule
Violation code:	51	Violation name:	Initial Tap Sampling for Pb and Cu
Rule code:	350	Rule name:	LCR
Violation measur:	0	Unit of measure:	Not Reported
State mcl:	0	Cmp bdt:	07/01/1993
Cmp edt:	12/31/2003		

Violation ID:	1023015	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	02/08/2010
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		

Violation ID:	1023015	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	02/26/2010
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

Violation ID:	1023017	Orig Code:	S
Enforcemnt FY:	2011	Enforcement Action:	12/16/2010
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		

Violation ID:	1023018	Orig Code:	S
Enforcemnt FY:	2011	Enforcement Action:	01/10/2011
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		

Violation ID:	1023019	Orig Code:	S
Enforcemnt FY:	2011	Enforcement Action:	04/13/2011
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		

Violation ID:	1123020	Orig Code:	S
Enforcemnt FY:	2011	Enforcement Action:	09/13/2011
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		

Violation ID:	1223021	Orig Code:	S
Enforcemnt FY:	2012	Enforcement Action:	12/01/2011
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		

Violation ID:	1223022	Orig Code:	S
Enforcemnt FY:	2012	Enforcement Action:	04/20/2012
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		

Violation ID:	1223023	Orig Code:	S
Enforcemnt FY:	2012	Enforcement Action:	04/20/2012
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		

Violation ID:	1223024	Orig Code:	S
Enforcemnt FY:	2012	Enforcement Action:	04/20/2012
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		

Violation ID:	1223025	Orig Code:	S
Enforcemnt FY:	2012	Enforcement Action:	04/20/2012
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		

Violation ID:	1223026	Orig Code:	S
Enforcemnt FY:	2013	Enforcement Action:	12/28/2012
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		
Violation ID:	1223027	Orig Code:	S
Enforcemnt FY:	2013	Enforcement Action:	12/28/2012
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		
Violation ID:	1223028	Orig Code:	S
Enforcemnt FY:	2013	Enforcement Action:	12/28/2012
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		
Violation ID:	1223029	Orig Code:	S
Enforcemnt FY:	2013	Enforcement Action:	12/28/2012
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		
Violation ID:	1223030	Orig Code:	S
Enforcemnt FY:	2013	Enforcement Action:	12/28/2012
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		
Violation ID:	1223031	Orig Code:	S
Enforcemnt FY:	2013	Enforcement Action:	01/17/2013
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		
Violation ID:	1223032	Orig Code:	S
Enforcemnt FY:	2013	Enforcement Action:	05/02/2013
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	1223033	Orig Code:	S
Enforcemnt FY:	2013	Enforcement Action:	05/03/2013
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	812001	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	03/13/2008
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	812001	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	02/26/2010
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	812002	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	02/26/2010
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	812002	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	02/15/2008
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	812002	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	03/13/2008
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		

Violation ID:	812004	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	02/15/2008
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	812004	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	02/26/2010
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	812005	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	02/26/2010
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	812005	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	02/15/2008
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	812006	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	04/04/2008
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	812006	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	02/26/2010
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	812007	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	02/26/2010
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	812007	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	04/24/2008
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	923008	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	01/30/2009
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	923008	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	02/26/2010
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	923009	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	02/26/2010
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	923009	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	06/01/2009
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	923010	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	02/26/2010
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	923010	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	08/25/2009
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		

Violation ID:	923010	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	10/05/2009
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		
Violation ID:	923011	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	02/26/2010
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	923011	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	10/05/2009
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		
Violation ID:	923012	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	02/26/2010
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	923012	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	02/08/2010
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		
Violation ID:	923012	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	10/05/2009
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		
Violation ID:	923013	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	10/30/2009
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	923013	Orig Code:	S
Enforcemnt FY:	2011	Enforcement Action:	12/16/2010
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		
Violation ID:	923014	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	02/08/2010
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		
Violation ID:	923014	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	02/26/2010
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	923016	Orig Code:	S
Enforcemnt FY:	2011	Enforcement Action:	12/16/2010
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		
Violation ID:	923016	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	02/08/2010
Enforcement Detail:	St AO (w/o penalty) issued		
Enforcement Category:	Formal		
Violation ID:	95V0001	Orig Code:	F
Enforcemnt FY:	2004	Enforcement Action:	12/31/2003
Enforcement Detail:	Fed Compliance achieved	Enforcement Category:	Resolving
Violation ID:	Not Reported	Orig Code:	S

Enforcemnt FY:	2010	Enforcement Action:	07/26/2010
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Not Reported		

PWS name:	SHORTYS PLACE	Population served:	51
PWS type code:	C	Violation ID:	0812001
Contaminant:	COLIFORM (TCR)	Violation type:	Monitoring, Routine Major (TCR)
Compliance start date:	12/1/2007 0:00:00	Compliance end date:	12/31/2007 0:00:00
Enforcement date:	3/13/2008 0:00:00	Enforcement action:	State Violation/Reminder Notice
Violation measurement:	Not Reported		

PWS name:	SHORTYS PLACE	Population served:	51
PWS type code:	C	Violation ID:	0812002
Contaminant:	COLIFORM (TCR)	Violation type:	Monitoring, Routine Major (TCR)
Compliance start date:	8/1/2007 0:00:00	Compliance end date:	8/31/2007 0:00:00
Enforcement date:	2/15/2008 0:00:00	Enforcement action:	State Violation/Reminder Notice
Violation measurement:	Not Reported		

PWS name:	SHORTYS PLACE	Population served:	51
PWS type code:	C	Violation ID:	0812002
Contaminant:	COLIFORM (TCR)	Violation type:	Monitoring, Routine Major (TCR)
Compliance start date:	8/1/2007 0:00:00	Compliance end date:	8/31/2007 0:00:00
Enforcement date:	3/13/2008 0:00:00	Enforcement action:	State Violation/Reminder Notice
Violation measurement:	Not Reported		

PWS name:	SHORTYS PLACE		
Population served:	51	PWS type code:	C
Violation ID:	0812004	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Major (TCR)		
Compliance start date:	10/1/2007 0:00:00	Compliance end date:	10/31/2007 0:00:00
Enforcement date:	2/15/2008 0:00:00	Enforcement action:	State Violation/Reminder Notice
Violation measurement:	Not Reported		

PWS name:	SHORTYS PLACE	Population served:	51
PWS type code:	C	Violation ID:	0812005
Contaminant:	COLIFORM (TCR)	Violation type:	Monitoring, Routine Major (TCR)
Compliance start date:	11/1/2007 0:00:00	Compliance end date:	11/30/2007 0:00:00
Enforcement date:	2/15/2008 0:00:00	Enforcement action:	State Violation/Reminder Notice
Violation measurement:	Not Reported		

PWS name:	SHORTYS PLACE	Population served:	51
PWS type code:	C	Violation ID:	0812006
Contaminant:	COLIFORM (TCR)	Violation type:	Monitoring, Routine Major (TCR)
Compliance start date:	2/1/2008 0:00:00	Compliance end date:	2/29/2008 0:00:00
Enforcement date:	4/4/2008 0:00:00	Enforcement action:	State Violation/Reminder Notice
Violation measurement:	Not Reported		

PWS name:	SHORTYS PLACE	Population served:	51
PWS type code:	C	Violation ID:	0812007
Contaminant:	COLIFORM (TCR)	Violation type:	Monitoring, Routine Major (TCR)
Compliance start date:	3/1/2008 0:00:00	Compliance end date:	3/31/2008 0:00:00
Enforcement date:	4/24/2008 0:00:00	Enforcement action:	State Violation/Reminder Notice
Violation measurement:	Not Reported		

PWS name:	SHORTYS PLACE	Population served:	51
PWS type code:	C	Violation ID:	95V0001
Contaminant:	LEAD & COPPER RULE	Violation type:	Initial Tap Sampling for Pb and Cu
Compliance start date:	7/1/1993 0:00:00	Compliance end date:	12/31/2003 0:00:00
Enforcement date:	12/31/2003 0:00:00	Enforcement action:	Fed Compliance Achieved
Violation measurement:	0		

Map ID Direction Distance Elevation	Database	EDR ID Number
54 **NNE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**13188**

Seq:	13188	Prim sta c:	16S/22E-06C01 M
Frds no:	1010024016	County:	10
District:	11	User id:	AGE
System no:	1010024	Water type:	G
Source nam:	WELL 15-01 - INACTIVE	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	363435.8	Longitude:	1193705.8
Precision:	3	Status:	IU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1010024	System nam:	California Water Service - Selma
Hqname:	CALIFORNIA WTR SERV CO	Address:	1720 NORTH FIRST STREET
City:	SAN JOSE	State:	CA
Zip:	95112	Zip ext:	Not Reported
Pop serv:	16250	Connection:	4743
Area serve:	SELMA		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
93662	8	1

Federal EPA Radon Zone for FRESNO County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 93662

Number of sites tested: 4

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.650 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW[R] Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

Groundwater Ambient Monitoring & Assessment Program
State Water Resources Control Board
Telephone: 916-341-5577
The GAMA Program is Californias comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Heath Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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2850 Nebraska
2850 Nebraska
Selma, CA 93662

Inquiry Number: 6898923.5
March 17, 2022

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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Data by infoUSA®

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2017	☑	☐	EDR Digital Archive
2014	☑	☐	EDR Digital Archive
2010	☑	☐	EDR Digital Archive
2005	☑	☐	EDR Digital Archive
2000	☑	☐	EDR Digital Archive
1995	☑	☐	EDR Digital Archive
1992	☑	☐	EDR Digital Archive
1989	☑	☐	POLK DIRECTORY CO
1982	☑	☐	POLK DIRECTORY CO
1977	☑	☐	POLK DIRECTORY CO
1972	☑	☐	POLK DIRECTORY CO
1967	☑	☐	POLK DIRECTORY CO
1962	☑	☐	POLK DIRECTORY CO
1956	☑	☐	POLK DIRECTORY CO

EXECUTIVE SUMMARY

Year	Target Street	Cross Street	Source

FINDINGS

TARGET PROPERTY STREET

2850 Nebraska
Selma, CA 93662

Year	CD Image	Source	
HIGHLAND AVE			
2017	pg A2	EDR Digital Archive	
2014	pg A7	EDR Digital Archive	
2010	pg A12	EDR Digital Archive	
2005	pg A17	EDR Digital Archive	
2000	pg A23	EDR Digital Archive	
1995	pg A26	EDR Digital Archive	
1992	pg A28	EDR Digital Archive	
1989	pg 0	POLK DIRECTORY CO	Street not listed in Source
1982	pg 0	POLK DIRECTORY CO	Street not listed in Source
1977	pg 0	POLK DIRECTORY CO	Street not listed in Source
1972	pg 0	POLK DIRECTORY CO	Street not listed in Source
1967	pg 0	POLK DIRECTORY CO	Street not listed in Source
1962	pg 0	POLK DIRECTORY CO	Street not listed in Source
1956	pg 0	POLK DIRECTORY CO	Street not listed in Source
NEBRASKA AVE			
2017	pg A4	EDR Digital Archive	
2014	pg A9	EDR Digital Archive	
2010	pg A14	EDR Digital Archive	
2005	pg A19	EDR Digital Archive	
2000	pg A24	EDR Digital Archive	
1995	pg A27	EDR Digital Archive	
1992	pg A29	EDR Digital Archive	
1989	pg A30	POLK DIRECTORY CO	
1989	pg A31	POLK DIRECTORY CO	
1982	pg A34	POLK DIRECTORY CO	
1977	pg A35	POLK DIRECTORY CO	

FINDINGS

Year	CD Image	Source	
1972	pg A36	POLK DIRECTORY CO	
1967	pg 0	POLK DIRECTORY CO	Target and Adjoining not listed in Source
1962	pg 0	POLK DIRECTORY CO	Target and Adjoining not listed in Source
1956	pg 0	POLK DIRECTORY CO	Target and Adjoining not listed in Source

S HIGHLAND AVE

2017	pg A6	EDR Digital Archive	
2014	pg A11	EDR Digital Archive	
2010	pg A16	EDR Digital Archive	
2005	pg A22	EDR Digital Archive	
2000	pg A25	EDR Digital Archive	
1995	-	EDR Digital Archive	Target and Adjoining not listed in Source
1992	-	EDR Digital Archive	Target and Adjoining not listed in Source
1989	pg A32	POLK DIRECTORY CO	
1989	pg A33	POLK DIRECTORY CO	
1982	pg 0	POLK DIRECTORY CO	Target and Adjoining not listed in Source
1977	pg 0	POLK DIRECTORY CO	Target and Adjoining not listed in Source
1972	pg 0	POLK DIRECTORY CO	Target and Adjoining not listed in Source
1967	pg 0	POLK DIRECTORY CO	Target and Adjoining not listed in Source
1962	pg 0	POLK DIRECTORY CO	Street not listed in Source
1956	pg 0	POLK DIRECTORY CO	Street not listed in Source

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

HIGHLAND AVE 2017

2406	VALDEZ, DESIREE
2424	RAMIREZ, ANTHONY S
2442	OLIVAS, ELOY A
2448	RAMIREZ, ANA
2454	EL REDENTOR FOURSQUARE CHURCH
2500	PRECIADO, LORETO M
2506	PRECIADO, DAVID V
2512	MCDANIEL, MARY A
2518	GASTELUM, FERNANDO
2525	SELMA HONDA
	SELMA NISSAN
2530	MARTINEZ, DIANE A
2536	CERVANTES, RAMIRO R
2548	DAVIS, ROY
2560	ARANDA, ALBERT A
2731	LES SCHWAB TIRE CENTER
2763	DENNYS
2775	D1 SPORTS
	H&R BLOCK
2803	GNC
2819	FOOD 4 LESS
2835	CIGARETTE OUTLET
	D 1 SPORTS
	ED ONTIVEROS INS
	PORT OF SUBS
	STATE FARM INSURANCE
2851	AT&T AUTHORIZED RETAILER
	ED ONTIVEROS INS
	FRESNO COUNTY FEDERAL CREDIT UNION
	GLAMOUR NAILS
	NEWSY FASHION
	PACIFICA PIZZA
	SHER PUNJAB SELMA GROCERY MARKET
	SPRINGLEAF FINANCIAL SERVICES
	STATE FARM INSURANCE
2867	JACK IN THE BOX
2883	TACO BELL
3105	ALLSTATE
	ALLSTATE INSURANCE SCOTT FAHRNEY
	FAHRNEY FORD SALES
	SWANSONFAHRNEY FORD
3113	FAHRNEY BUICK GMC
	TOYOTA OF SELMA
	TOYOTA OF SELMA FAHRNEY AUTO GROUP
3142	SUPER 8
	SUPER 8 SELMA FRESNO AREA
	SUPER 8 SELMA VOICE
3150	HYUNDAI & SUZUKI
	SELMA HONDA
	SELMA HYUNDAI

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

HIGHLAND AVE 2017 (Cont'd)

3165	MENEDS PIZZERIA
3170	MENEDS
3175	HOME SERVICES AT THE HOME DEPOT
	LIBERTY CHEVROLET GEO
	THE HOME DEPOT
3176	UNIVERSAL AUTO
3184	MOHAMED, ASHRAF F

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NEBRASKA AVE 2017

2601	ALANIS, UVALDO M
2665	AVENDANO, MARCELINO A
	BARRACO, ELIZABETH
	BARRANCO, JAVIER
	CALDERON, CAROLINA
	CAMARILLO, VALENTINA
	CORONADO, AGUSTIN
	CORTEZ, ELEUTERIO
	FERNANDEZ, SABINO
	FORD, DELOISE
	GARCIA, ALICIA
	GIBSON, GLORIA
	HERNANDEZ, MARTIN L
	J D INVESTMENTS
	LINDSEY, ADRIAN
	LOPEZ, ADAM
	MARTINEZ, GABINO R
	MARTINEZ, GLORIA P
	MENDOZA, MARTHA
	NAVA, JAVIER
	ORTIZ, RAMIREZ C
	PEREZ, JAVIER
	REYNADA, MARICELA
	REYNAGA, ERICA M
	RIVAS, JOHNATHEN
	RODRIGUEZ, MOISES
	SALAZAR, JORGE
	SERRANO, MARTIN
	SILVA, FRANCISCA
	SOLANO, JUAN
	VASQUEZ, ARELY
	VASQUEZ, ROMEO
	VICTOR, CAMARENA
	ZABALETA, MARGARITA
2679	AVALOS, JOSEFINA
	AVENDANO, OPORTUNA
	BARRANCO, FLORENTINO
	BARRANCO, ZLA
	CAMARILLO, CRISPIN
	CANTE, JOSE D
	CRISTINA, DEMARIA
	FRANCO, GRISELL
	GOPAR, CARMELO
	GUERRA, JIMMY
	GUTIERREZ, LORENZO C
	HERNANDEZ, ALONSO V
	JACINTO, CATALEEN
	JOSE, GUADALUPE R
	LARA, MANUEL
	MARQUEZ, ALEJANDRO

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NEBRASKA AVE 2017 (Cont'd)

2679	MATIAS, JOSE L
	MENDOZA, ROGELINA
	MORALES, MARIELA
	NAVA, LIDIA
	ORTIZ, VICTOR
	PANDURO, NORMA
	PEREZ, CRISANTO
	PEREZ, GAUDENCIO
	RUIZ, TEOFILA
	SANTOS, MARGARITA C
	VASQUEZ, LUCIA
	VERDIN, ISMAEL M
2695	GOMEZ, CRISTINA
2807	FOWLER, ROBIN P
2809	GRIFFIS, LINDA J
2813	GUZMAN, RAYMOND M
2855	DORNAN, WANDA J

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S HIGHLAND AVE 2017

2004	76
	SUBWAY
2036	SUPER DRIVE INN
2211	SIKH CENTER OF PACIFIC COAST
	SIKH CENTER OF PACIFIC COAST INC
3325	PIT STOP TOWING
3425	STORLAND OF SELMA
3495	GOLDEN STATE MECHANICAL AC HEATING A
	RODRIGUEZ, ALBERTO S
3595	CERVANTES, ROBERT
3604	TREJO, ALFREDO V
3618	PEREZ, AMANDA
3635	FARFAN, SARA T

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

HIGHLAND AVE 2014

2406	OCCUPANT UNKNOWN,
2412	RAJ, JOSEPH
2418	OCCUPANT UNKNOWN,
2424	RAMIREZ, TONY
2430	VILLANUEVA, MARIA C
2436	OCCUPANT UNKNOWN,
2442	ELIZONDO, EMMA C
2448	OCCUPANT UNKNOWN,
2454	EL REDENTOR FOURSQUARE CHURCH
2500	PRECIADO, LORETO M
2502	GRIJALVA, CHARLE
2506	PRECIADO, DAVID V
2512	MCDANIEL, KEVIN F
2518	GASTELUM, FERNANDO
2525	SELMA AUTO MALL
	SELMA NISSAN
2530	MARTINEZ, DIANE A
2548	DAVIS, ROY
2560	ARANDA, ALBERT A
2731	LES SCHWAB TIRE CENTER
2751	OFFICEMAX
2763	DENNYS SELMA
2775	H&R BLOCK
2803	GNC
	JOYERIA RUBI
	PARROT AT&T
	PARROT, T
2819	FOOD 4 LESS
2835	CIGARETTE OUTLET
	D 1 SPORTS
	EDWARD ONTIVEROS STATE FARM INSURA
	ONTIVEROS ED INS
	PORT OF SUBS
	STATE FARM INSURANCE
2851	GLAMOUR NAILS
	NEWSY FASHION
	PACIFICA PIZZA
	RADIOSHACK
	SPRINGLEAF FINANCIAL SERVICES
2867	JACK IN THE BOX
2883	TACO BELL
3105	FAHRNEY AUTOMOTIVE GROUP
	FAHRNEY BUICK GMC
	SWANSONFAHRNEY FORD
	TOYOTA OF SELMA
3113	DON BUICKOLDSPONTIAC & G M C TRUCK
	TOYOTA OF SELMA
3136	ESPARZA, CARLOS F
3142	SUPER 8 SELMA
	SUPER 8 SELMA VOICE FAX

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

HIGHLAND AVE 2014 (Cont'd)

3144	OCCUPANT UNKNOWN,
3150	HYUNDAI & SUZUKI
	SELMA AUTOMALL
3174	SELMA AUTO PLAZA
3175	LIBERTY CHEVROLET GEO
	THE HOME DEPOT
3182	GREGORY-JR, JAMES W
3184	OCCUPANT UNKNOWN,
3185	WHITESTONE MINISTRIES

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NEBRASKA AVE 2014

2601	ALANIS, UVALDO M
2665	AGUILAR, GARCIA R
	AGUILAR, MARIA D
	ALVAREZ, MARIA
	AVENDANO, MARCELINO A
	AVILA, ROSA M
	BARRACO, ELIZABETH
	CALDERON, IRENE
	CORTEZ, ELEUTERIO
	DIAZ, SILVIA
	FABIAN, CHAVEZ E
	FERNANDEZ, SABINO
	GARCIA, MOISES
	GONZALEZ, MARIA
	GUZMAN, GABRIEL
	HERNANDEZ, MARTIN L
	J D INVESTMENTS
	JARAMILLO, INEZ M
	LUCAS, GUILLERMO
	MENDOZA, MARTHA
	NAVA, JAVIER
	ORTIZ, JUAN
	ORTIZ, RAMIREZ
	PEREZ, CIRILO V
	REYNADA, MARICELA
	RODRIGUEZ, MOISES
	SALAZAR, JORGE
	SILVA, FRANCISCA
	SILVINA, RAMIREZ
	VASQUEZ, NOE
	VAZQUEZ, ISABEL
	ZABALETA, MARGARITA
2667	CARLSTROM, M
2679	ALVAREZ, M
	ANTONIO, LUIS
	AVALOS, JOSEFINA
	AVENDANO, OPORTUNA
	BARRANCO, FRANCISCO
	CAMARILLO, CRISPIN
	CANTE, JOSE D
	CHONTECO, EUGENIA
	CORTEZ, MARCELINO
	CRISTINA, DEMARIA
	GOPAR, CARMELO
	GUTIERREZ, LORENZO C
	GUZMAN, ARCADIO
	JACINTO, FABIAN
	JOSE, GUADALUPE R
	LEYVA, RUBEN
	MARIA, RITO

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NEBRASKA AVE 2014 (Cont'd)

2679	MARQUEZ, ALEJANDRO
	MATIAS, JOSE L
	MENDOZA, ROGELINA
	NAVA, LIDIA
	ORTIZ, VICTOR
	PACHECO, PEDRO
	PANDURO, NORMA
	PEREZ, ANA M
	PEREZ, CRISANTO
	RAMIREZ, ANA
	RAMOS, AURELIANO
	RUIZ, JUAN
	RUIZ, TEOFILA
	SANTOS, MARGARITA C
	VASQUEZ, LUCIA
	VERDIN, ISMAEL M
2807	FOWLER, EARL W
2809	LEGGETT, LEONARD L
2813	HERNANDEZ, BERTH V
2855	DORNAN, WANDA J

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S HIGHLAND AVE 2014

2004	HSP LIDDER INC
2036	SUPER DRIVE INN
2211	OCCUPANT UNKNOWN,
	SIKH CENTER OF PACIFIC COAST
2255	OCCUPANT UNKNOWN,
2261	OCCUPANT UNKNOWN,
3425	STORLAND OF SELMA
3495	BOCANEGRA, TEDDY
3524	HAMM, AMANDA
3575	STUART, SHEILA A
3595	CROSSWHITE, JAMES R
	WRIGHT, TOMMY J
3604	CALDERON, OLIVIA
3618	ROSALES, HECTOR
3635	FARFAN, SARA T

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

HIGHLAND AVE 2010

2406	SANTOS, AMBROSIO
2412	RAMOS, RODOLF B
2418	OCCUPANT UNKNOWN,
2424	RAMIREZ, ANTHONY
2430	VILLANUEVA, MARIA C
2436	OCCUPANT UNKNOWN,
2442	DELGADO, JOSE M
2448	CASTILLO, GUADALUPE
2454	EL REDENTOR FOURSQUARE CHURCH
2500	PRECIADO, LORETO M
2502	GRIJALVA, CHARLE
2506	PRECIADO, JUAN
2512	MCDANIEL, MARY A
2518	CAMACHO, HECTOR Q
2525	LIBERTY CHEVROLET
	SELMA NISSAN
2530	RIOS, JUAN
2536	CRUZ, ANDRES
	OCCUPANT UNKNOWN,
2548	DAVIS, ROY
2560	ARANDA, ALBERT A
2651	KAISER PERMANENTE MEDICAL OFC
2751	OFFICE MAX
2763	DENNYS
2775	CURVES
	D 1 SPORTS
2803	ESTRELLA JEWELRY
	GNC
	HONGS WATER INC
	JOYERIA RUBI
	PARROT AT & T
2819	FOOD 4 LESS
2835	LITTLE CAESARS PIZZA
	PORT OF SUBS
2851	AMERICAN GENERAL FINANCIAL SVC
	GLAMOUR NAILS
	NEWSY FASHION
	PACIFICA PIZZA
	RADIO SHACK
	STATE FARM INSURANCE
	TAQUERIA EL MEXICANO
3136	ALPHA PEST CONTROL
3142	SUPER 8SELMA
3144	OCCUPANT UNKNOWN,
3150	SELMA HONDA
3165	MENEDS PIZZERIA
	MILANO RESTAURANTS INTL
3174	AUGUSTINE, AIDA
3175	HOME DEPOT
3176	SELMA AUTO PLAZA

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

HIGHLAND AVE 2010 (Cont'd)

3184 DELTA AUTO SALES
OCCUPANT UNKNOWN,

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NEBRASKA AVE 2010

2601	OCCUPANT UNKNOWN,
2665	AGUILAR, GARCIA R
	AVILA, GUADALUPE
	CALDERON, ANTONIO
	CASTILLO, ELIZANDRO
	CHAVEZ, RAFAEL F
	CORTEZ, ELEUTERIO
	CRUZ, ANTONIO G
	CUNNINGHAM, DARNELL
	DELGADO, MARICRUZ
	DIAZ, PORFIRIO
	FABIAN, MARTINA
	FERNANDEZ, SABINO
	GAMEZ, MARIO
	GARCIA, ALICIA
	GARCIA, MOISES
	GOMEZ, JOSE L
	GONZALEZ, VASQUEZ M
	GUTIERREZ, FERNANDO R
	GUZMAN, MONROY I
	HERNANDEZ, JOAQUIN R
	J D INVESTMENTS
	LOPEZ, ADAM
	LOPEZ, ANDRES
	LOPEZ, SERGIO
	LUCAS, GUILLERMO
	MARTINEZ, GABINO R
	MATIAS, MARIA
	MENDOZA, MARTHA
	MONJARAS, PEDRO
	NAVA, JAVIER
	ORTIZ, RAMIREZ
	PENA, ADELINA
	PEREZ, DENIA
	PEREZ, JAVIER
	RAMIREZ, FLORENCIA
	REYNADA, MARICELA
	RIOS, PATRICIAS
	SALAZAR, JORGE
	SANTIAGO, VICTOR
	SERRANO, MARTIN
	SILVA, FRANCISCA
	TORRES, CARLOS
	VASQUEZ, IGNACIO
	VAZQUEZ, ISABEL
	ZABALETA, MARGARITA
2667	CARLSTROM, M
2679	ALTAMIRANO, IRENE
	AMAYA, MARIA
	AVENDANO, O

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NEBRASKA AVE 2010 (Cont'd)

2679	BARRANCO, FRANCISCO
	CORTEZ, ELEUTERIO
	CORTEZ, MARCELINO
	DENIZ, ANNA M
	FABIAN, FLAVIO
	GARCIA, FRANCISCO
	GARCIA, JOEL D
	GARCIA, ZOILO
	GOMEZ, ALONSO M
	GOPAR, CARMELO
	GUTIERREZ, LORENZO C
	GUZMAN, ARCADIO
	LOPEZ, SEFERINO
	LOYA, ROSIO
	LUIS, ANTONIO
	MARQUEZ, ALEJANDRO
	MATIAS, JOSE L
	MENDOZA, GERARDO
	MENDOZA, ROGELINA
	NAVA, LIDIA
	ORTIZ, VICTOR
	PACHECO, PEDRO
	PATINO, LIDUVINA
	PEREZ, GAUDENCIO
	RAMIREZ, MIGUEL
	RAMIREZ, SECONDINO
	RAMOS, AURELIANO
	RODRIGUEZ, FRANCISCA
	RUELAS, PRAXEDIS
	RUIZ, JUAN
	RUIZ, LEONCIO
	RUIZ, TEOFILA
	SANTOS, MARGARITA C
	SANTOS, SANTIAGO C
	SILVA, JOSELYN
	VASQUEZ, LUCIA
	VAZQUEZ, AMADA
	VERDIN, ISMAEL M
2695	OCCUPANT UNKNOWN,
2807	FOWLER, YVONNE F
2813	LOPEZ, RENE Z
2855	DORNAN, WANDA J

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S HIGHLAND AVE 2010

2004	HSP LIDDER INC
2205	HERNANDEZ, REMEDIADIO
2211	SIKH CENTER OF PACIFIC COAST
2255	OCCUPANT UNKNOWN,
2261	OCCUPANT UNKNOWN,
3425	STORLAND OF SELMA
3495	DODSON, LEONA L
	HILL, ARTIE M
3575	GONZALES, M
3595	BAGWELL, JAMIE
	CROSSWHITE, JAMES R
	WRIGHT, TOMMY J
3604	CALDERON, OLIVIA
3618	GHARIBIAN, ABIGAIL
3625	OCCUPANT UNKNOWN,
3635	FARFAN, SARA T

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

HIGHLAND AVE 2005

2406	OCCUPANT UNKNOWN,
2412	RAMOS, RODOLF B
2418	OCCUPANT UNKNOWN,
2424	RAMIREZ, ANTHONY
2430	VILLANUEVA, CAYETANO
2436	OCCUPANT UNKNOWN,
2442	ELIZONDO, EMMA C
2448	OCCUPANT UNKNOWN,
	TIP TOP DRIVE INN
2454	EL REDENTOR FOURSQUARE CHURCH
2500	PRECIADO, LORETO M
2502	GRIJALVA, CHARLE
2506	PRECIADO, IRENE I
2512	MCDANIEL, KEVIN F
2518	CAMACHO, HECTOR O
2524	MORALES, JULIO O
2530	RIOS, JUAN
2536	CHAIDEZ, ELAINE
	PEREZ, JESS J
2548	CHAVEZ, TERESA I
2560	ARANDA, ALBERT A
2751	OFFICEMAX
	OFFICEMAX 1137
2763	DENNYS SELMA
2775	CURVES FOR WOMEN
	PREMIUM AUTO INSURANCE
	SURREAL
2803	D1 SPORTS
	ESTRELLA JEWELERS
	GENERAL NUTRITION CENTER
	JESUS MORALES
2819	FOOD 4 LESS
2835	CASH PLUS
	LAMOURES CLEANERS & LAUNDRY
	PORT OF SUBS
	SUPER INDIA SWEET & SPICY
2851	AMERICAN GENERAL FINANCIAL SERVICES
	ENTREPRENEURIAL VENTURS INC
	GLAMOUR NAILS
	NEWSY, FASHION
	RADIO SHACK CORP
	RESTAURANTE
	TAQUERIA EL MEXICANO NO 2
	X S & O S BRIDAL BOUTIQUE
2867	JACK IN THE BOX FAMILY RESTAURANT
	MOUNTAIN MIKES PIZZA
2883	TACO BELL
3136	CHAVEZ, MONICA
3142	SUPER 8 MOTEL
3150	FAHRNEY ENTERPRISES INC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

HIGHLAND AVE 2005 (Cont'd)

3165	MILANO RESTAURANTS INTL
	PIZZA WORLD SUPREME
3170	ME N EDS PIZZERIA
3174	AUGUSTINE, AIDA
3175	AAA INVESTMENTS
	ADVANCED SOUND AND SECURITY
	EDS AUTO SALES
	LIBERTY AUTOBODY SHOP
	SELMA AUTO PLAZA
	THE HOME DEPOT
3176	SELMA, R
3184	VILLALOBOS, VICTOR M

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NEBRASKA AVE 2005

2601	HERRERA, EMILIO
2665	ACOSTA, JOHN
	ALMA, CRUZ R
	ALTAMIRANO, IRENE
	ARANDA, OLIVIA
	AVILA, ROSA
	CALDERON, TEODORO
	CAMARILLO, REGINO
	CASTELLANOS, JORGE
	CASTILLO, ELIZANDRO
	CLEMENTE, JOSE
	CORONADO, C
	CRUZ, AQUINO J
	CRUZ, CONCEPCION
	CRUZ, JOSEFINA
	DIAZ, CATALINA
	ELOY, REYMUNDO F
	ESPINOZA, LETICIA
	FABIAN, JACINTO
	FABIAN, MARTINA
	FERNANDEZ, SABINO
	GARCIA, RAMON
	GOMEZ, OFELIA
	GUZMAN, JUVENTINA
	GUZMAN, MONROY I
	HERNANDEZ, JOSE
	HERRERA, JOEL R
	JARAMILLO, INEZ M
	JIMENEZ, SAMUEL
	LOPEZ, GENARO
	LUCAS, SILVIA
	MARQUEZ, FABIAN J
	MARTINEZ, GABINO R
	MENDOZA, CELSO
	MONJARAS, PEDRO
	MORALES, IMELDA
	NAVA, JAVIER
	ORTIZ, ESMERALDA
	PACHECO, MODESTO
	PENA, ADELINA
	PEREZ, CIRILO V
	PEREZ, JAVIER
	RAMIREZ, ANDRES
	RAMIREZ, FRANCISCO P
	RAMIREZ, JOSE M
	RAZO, JOSEFINA
	RENDON, VITO L
	REYES, DIOGEMES
	RIOS, PEDRO D
	RIVERA, ANDRES

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NEBRASKA AVE 2005 (Cont'd)

2665	RODRIGUEZ, CLARA
	RODRIGUEZ, MARIO
	RUIZ, YOLANDA
	SALAZAR, JORGE
	SANTIAGO, VICTOR
	SANTOS, CONCEPCION
	SILVA, FRANCISCA
	TREGO, MARIA
	TREJO, MARIA
	VARGAS, ANTONIO
	VASQUEZ, DANIEL
	VAZQUEZ, JUAN S
	VILLA, DESIREE
	ZAVALETA, ORTIZ A
2667	LOPEZ, F
2679	CAZAREZ, P
	CORONADO, CUEVAS
	CRUZ, ANDRES
	FABIAN, FLAVIO
	FARIAS, MARIO R
	GARCIA, FILEMON
	GARCIA, VICTORIO
	GOPAR, CARMELO
	GUERRERO, A
	GUTIERREZ, LORENZO
	GUZMAN, ARCADIO
	HERNADEZ, SERGIO
	HERRERA, SAUL
	JD HOME RENTALS
	JIMENEZ, CONCEPCION
	LOPEZ, SEFERINO
	MARQUEZ, ALEJANDRO
	MARTINEZ, PEREZ
	MASCARENO, MIRELIA
	MATIAS, JOSE L
	MENDOZA, GERARDO
	MORALES, MIREYA
	MURRIETTA, SINDY
	PACHECO, PEDRO
	PEREZ, ANA M
	RUIZ, LEONCIO
	SANTANA, B A
	SANTOS, SANTIAGO C
	SILVA, VICTOR
	SUASTES, JUANA
	VASQUEZ, ROMEO
	VAZQUEZ, AMADA
2695	SILVA, LEONOR
2807	FOWLER, EARL W
2809	OCCUPANT UNKNOWN,

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NEBRASKA AVE 2005 (Cont'd)

2813 HERNANDEZ, BERTHA V
2855 DORNAN, WANDA J

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S HIGHLAND AVE 2005

3425	STORLAND OF SELMA
3495	HILL, ARTIE M
3512	OCCUPANT UNKNOWN,
3575	RIVERA, ALEJANDRA
3595	S & J AUTO BODY
3604	THURMAN, ELIZABETH L
3618	JIMENEZ, MARIA
3625	ARANA, MARIA
3635	OCCUPANT UNKNOWN,

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

HIGHLAND AVE 2000

2406	DELGADILLO, SUSAN
2412	OCCUPANT UNKNOWN,
2418	OCCUPANT UNKNOWN,
2424	RAMIREZ, ANTHONY
2430	VILLANUEVA, C
2436	LOPEZ, ALBERTO
2442	ELIZONDO, EMMA
2448	OCCUPANT UNKNOWN,
2454	EL REDENTOR FOURSQUARE CHURCH
2500	PRECIADO, LORETO
2512	MCDANIEL, MARY
2518	OCCUPANT UNKNOWN,
2524	MORALES, JULIO
2536	DOMINGUEZ, E
2819	FOOD 4 LESS
2835	PORT OF SUBS
3105	FAHRNEY SWANSON FORD SALES
	SWANSON FAHRNEY FORD SALES
3113	DON BUICK OLDS PONTIAC & GMC
	ROYAL BUICK OLDS PONTIAC & GMC TRUCKS
3142	SUPER 8 MOTEL
3150	SELMA HONDA
	SELMA TOYOTA
3170	ME N EDS PIZZA PARLORS
3174	ROMERO, AIDA
3175	LIBERTY AUTO BODY
	LIBERTY CHEVROLET
	LIBERTY CHEVROLET GEO
3176	SELMA ROCKERY
3185	SINGH, DEV R
3200	SUNNYSIDE PACKING COMPANY

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NEBRASKA AVE 2000

2665	ARRIAGA, SALOME
	CARRILLO, F
	CORTEZ, SANTOS P
	CRUZ, JULIA E
	GONZALEZ, JESUS
	GUZMANMONROY, IRENE
	HERNANDEZ, G
	HERNANDEZ, V C
	LARA, LUIS A
	LOPEZ, VICTOR J
	MENCHACA, C
	MORALES, MARIA
	MORENO, ERNESTO
	NAVA, JAVIER
	PEREZ, DENIA
	RAMIREZ, F P
	RAMIREZ, JOSE M
	RIVAS, RODOLFO
	RODRIGUEZ, GABRIEL
	SANCHEZRIOS, F
	VASQUEZ, RITA R
2667	HERNANDEZ, B
2669	AVILA, G
2679	CONSECO, ALICIA
	DUARTE, G
	GARCIA, A
	GARCIA, JOEL
	GUTIERREZ, F
	LANGHE, PAUL
	MARTINEZ, PEDRO F
	RAMIREZ, EMILIO
	THORNTON, PAUL W
	VASQUEZ, M
	VELASQUEZ, F

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

S HIGHLAND AVE 2000

3425	STORLAND OF SELMA
3575	MEZA, EVA
3604	OCCUPANT UNKNOWN,
3618	MOJARRO, SANCHEZ J
3625	DUPREE, JEREMY J
3635	FARFAN, SARA T

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

HIGHLAND AVE 1995

2424	OCCUPANT UNKNOWNN
2430	VILLANUEVA, C
2436	SIMONS, BART D
2442	ELIZONDO, EMMA
2448	OCCUPANT UNKNOWNN
2500	PRECIADO, LORETO
2506	GUERRERO, ANTONIO T
2512	MCDANIEL, MARY
2518	RODRIGUEZ, E
2524	MORALES, JULIO JR
2530	ARANDA, CONNIE
2536	RIVAS, VICKY
2548	DAVIS, SADIE
2560	RAMOS, CANDIDO
3113	ROYAL BUICK OLDS PONTIAC & GMC
3142	SUPER 8 MOTEL
3170	ME N EDS PIZZA PARLOR
3171	SELMA HONDA
3175	LIBERTY CHEVROLET GEO
	LIBERTY RENT A CAR
3179	SELMA MAZDA
3200	SUNNYSIDE PACKING CO

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NEBRASKA AVE 1995

2601	MORTON, LIZ
2665	ACOSTA, JUAN
	ARAGON, MARIA
	ARREDONDO, MARIA
	BALLAGAN, V
	CAMARENA, IDOLINA
	FRAUSTI, RUTH
	GONZALEZ, ISSAC
	J D INVESTMENTS
	LOY, SARA
	MAGDELANO, MARIA C
	MORALES, ARMANDO
	OROSCO, JESSE
	PEREZ, LARA A
	PREZ, JOSE
	RAMIREZ, C
	RODRIGUEZ, ISAAC
	SANDOVAL, ISABEL
	TERWILLEGER, TAMARA
	TREGO, MANUEL
	YANEZ, JOSE
2669	OCCUPANT UNKNOWNN
2679	ARREOLA, ALICA
	CABALLERO, JOSE L
	CARDENAS, RAMON
	CHAVEZ, G
	CRUZ, MARIA
	CRUZ, ROBERTO
	DIAZ, MANUELA N
	DURAN, RAMON
	ESTRELLA, A
	GUTIERREZ, MARIA
	LOPEZ, G
	MUNOZ, NOE
	QUINOREZ, LUZ
	SOTELO, ELVIRA
	VASQUEZ, JULIAN

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

HIGHLAND AVE 1992

2424	RAMIREZ, RUBEN
2430	VILLANUEVA, C
2442	ELIZONDO, E
2500	PRECIADO, LORETO
2512	MCDANIEL, MARY
2524	MORALES, JULIO JR
2536	PEREZ, JOSE C
2560	ARANDA, ALEX
3105	FAHRNEY SWANSON
	SWANSON F FORD SLS
3113	ROYAL BUICK OLDS
3142	SUPER 8 MOTEL
3150	SELMA HONDA
3170	ME N EDS PIZZA
3175	LIBERTY CHEVROLET
	SELMA MAZDA
	U HAUL CO
3185	SIKH CENTER PAC CST
3200	SUNNYSD PACKING CO

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

NEBRASKA AVE 1992

2601	LANE, ROY
2665	CALDERONALFARO, HECTOR
	CAMPAS, LUZ
	DIAZ, JUAN V
	GOMEZ, JUAN
	GONZALES, DIANA
	J D INVESTMENTS
	RODRIQUEZ, LAZARRO
	SANCHEZ, ANCELMO
	SOLORZANO, V
	TREGO, MANUEL
	VELASQUEZ, FELIX
2679	AGUILERA, J
	AGUIRRE, REFUGIO
	ARREOLA, ALICA
	DELOSSANTOS, ESTER
	DIAS, MANUELA N
	DIAZ, GERARDO
	LOPEZ, RAFAEL
2695	VINTAYEN, ANTONIO
2811	FOWLER, G M
2855	DORNANS LUMBER

Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

NEBRASKA AVE 1989

NEBRASKA AV (S)–Contd
2415 Guevara Frank G ◎
2425★Novoa Refugio 891-1354
2433 Soto Tony C ◎ 896-0157
2433½ Gonzales Delfina 896-5943
2439 Aguilera Connie B ◎
896-3138
2D ST BEGINS
2453★Estreda Magdalena 896-4512
2455 Almaraz Angela
2457 Mendez Florentina 896-4307
2471 Beserra Robt
2472 Daniel Alf ◎ 896-5142
2475 Wong Ronald Y ◎ 896-3735
THOMPSON ST INTERSECTS
2507 Economy Market 896-1304
2601★Lane Mabel ◎ 896-5662
2665 Vineland Village apts &
townhouses 896-7534
100★Ramos Elis
101★Moreno Jacob
102★Vasquez Susan
103★Reyes Easther
104★Garcia Cathy
105★Soto Analisa
106★Yanez Arlene
107★Chavez Gloria
108★Bernerdino Erlinda
109★Tejeda Jose
110★Castillio Margrett
111★Martinez Imelda
112★Rodriguez Freda
113★Campo Maria
114★Zambrano Luis 896-7534
115 Dean Maria
116 Gonzalez Teresa
117★Avila Emiliano
118★Ramirez Della
119★Barrera Maria
120★Salazar Alfredo
121★Jackson Delphine
122★Nava Javier
123★Saldivar Alelaida
124★Aburto Javier
125★Sanchez Ruben
126★Varsa Rodrigo
127★Aguilar Maryann
128 No Return (Apts 128-
31)
132★Carrasco Mercedes
133 Estrada Sylvia
134★Alvarez Benjamine
135★Vance Terry
139 Vinland Village (Ofc)
896-7534
137★Micu Lois
138★Vigel Susie A 896-4460
140 Deshazer Daryl
141★Caceres Leo
142 Vacant
143★Villanueva Edna
144★Alanis Easther
145★Ambriz Albert
146★Castro Manule L
147★Dias Gerardo
148★Zamora Mario
149★Gutierriez Leticia
150★Avila Rogelio
151★Robles Eleanor
152★Dickie Rowland
153★Morelos Virginia
154★Piceno Louis
155 Vacant
156★Cater Diana
157★Nora Alfaro
158 Vacant
159★Angle Lorie
160★Shepeherd Dawn
161★Zavala Jaime
162★Velasquez Agustin
163★Zapeda Refugio
164★Navaro Rosie
165★Almaklan Yahya H
166 Rocha Maria
167 Perez Jovita
204★Velasquez Requal
205★Cazarez Ignacio
206★Alvarez Rita
207★Moreno Jose
208★Lodesma Anna
209★Blasquez Alberto
210★Chavez Agustin
211★Montemayor Daina
220★Murillo Ricardo
221★Mendez Alejandro
222★Cardena Alfonso
223★Contreras Alfredo
224★Perez Ruben
225★Frazer Tammy
226★Barboza Ramon
227★Sahota Rachhpal Sing
236 Santacruz Robt
237★Ruelas Rosa
238★Dow Tomma
239 Vacant
240★Roberts Gracie
241 Vacant
242 Vacant
243★Avila Simon
248★Magallon Carmen
249★Rodriguez Juan
250★Padillia Loza

Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

NEBRASKA AVE 1989

NEBRASKA AV (S)–Contd

251★Toledo Rene
252★Zearate Jesus
253★Gonzales Diana
254★Bravo Paulino
255 Vacant
256★Moreno Aljehandro
257★Zacarias Rosemary
258★Shepherd Doug
259★Hurtado Esteban
260★Gonzales Beatriz
261★Lopez Cuevas
262★Villagomez Arturo
263 Vacant
264★Orosco Jesse
265★Vasquez Jessica
266★Cisneros Ramona
267★Pretio Consuello
2695★Vintayen Antonio 896-3847
MITCHELL INTERSECTS
HIGHLAND AV INTERSECTS

Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

S HIGHLAND AVE 1989

101

HIGHLAND AV S (SELMA)
FROM 9009 E DINUBA AV
SOUTH

ZIP CODE 93662

2400 Faith Tabernacle United
Pentecostal Church 896-4642

2412★Ramos Guadalupe P ◎
896-0738

2418★Delgadillo Joe Jr ◎
896-6098

2424★Ramirez Ruben

2430★Villanueva Cayetano

2434★Medrano Inocencia Mrs

2442★Elizondo Manuel ◎

Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

S HIGHLAND AVE 1989

S HIGHLAND AV (S)–Contd

2450★Jones Wesley

2454 El Redentor Foursquare Church churches & synagogues 896-6560

2500★Preciado Loreto

2512★Mc Daniel Mary 896-2307

2524★Morales Julio Jr ◎ 896-5390

2536★Perez Jose C 896-9168

3142 Super Eight Motel 896-2800

Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

NEBRASKA AVE 1982

2D ST BEGINS
2453 No Return
2455★Almaraz Angela 896-6643
2457★Daniels Barbara
2471 Franco James ◎ 896-2006
2472 Daniel Alf ◎ 896-5142
2475 Wong Ronald Y ◎ 896-3735
THOMPSON ST INTERSECTS
2507 Economy Market 896-1304
2525 Wilson Marlin L 896-1769
2601 Lane Roy N ◎ 896-0844
2645 Dover Chester
2665 Sanchez Eliviro
2695 Vacant
MITCHELL INTERSECTS
HIGHLAND AV INTERSECTS

Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

NEBRASKA AVE 1977

GAYNOR ST ENDS
2407 Soto Petra Mrs 896-0534
2415 Guevara Frank ◎
2425 Trejo John
2433 Soto Tony C ◎ 896-0157
2433½★Verdin Andrew Jr
2439 Aquilera Tony ◎ 896-3138
2D ST BEGINS
2453 Gerald Arth ◎ 896-4293
2453½★Suarez Rene
2471★Suendsen James G
2472 Vacant
2475 Wong Ronald Y ◎ 896-3735
THOMPSON ST INTERSECTS
2507 Economy Market 896-1304
2525 Wilson Marvin
2601 Lane Roy ◎ 896-0844
2645 Vacant
2665 Sanchez Alvire
2695★Garcia Pete
MITCHELL INTERSECTS
HIGHLAND AV INTERSECTS

Target Street	Cross Street	Source
✓	-	POLK DIRECTORY CO

NEBRASKA AVE 1972

GAYNOR ST INTERSECTS
2407*Soto Petra 896-0534
2415 Guevara Frank ◎ 896-1089
2425*Vasquez Trinidad
2433 Soto Tony C ◎ 896-0157
2433½*Gonzales Raymond
896-5553
2439 Aquilera Tony ◎ 896-3138
2D ST BEGINS
2453 Gerald Arth ◎ 896-4293
2453½ Gonzales Andrew N
896-5046
2471 Vacant
2472 Sigala Frank ◎ 896-1277
2475 Wong Ronald Y ◎ 896-3735
THOMPSON ST INTERSECTS
2507 Economy Market 896-1304
2525 Wilson Zora M ◎ 896-3270
2601 Lane Roy 896-0844
2645 No Return
2665 Sanchez Pete 896-4726

APPENDIX B

INTERVIEW AND RESEARCH DOCUMENTATION

HARO ENVIRONMENTAL

Environmental Site Assessment Questionnaire

Information provided in this Questionnaire will be used to develop a preliminary assessment of the environment condition of the proposed site and to develop an opinion regarding the potential for soil, groundwater, and/or surface water contamination associated with the former or current generation, use, storage, handling, or disposal of hazardous materials on or in the vicinity of the site. This Questionnaire is based on the guidelines of the American Society for Testing Materials (ASTM) Practice E 1528-14 (Standard Practice for Environment Site Assessments: Transaction Screen Process). The purpose of ASTM Practice 1528-14 and ASTM Practice E 1527-13 (Standard Practice for Environmental Site Assessments: Phase I Environmental: Phase I Environmental Site Assessment Process) is to define good commercial and customary practice in the United States of America for conducting an environmental site assessment of a parcel of commercial real estate with respect to range of contaminates within the scope of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and petroleum products.

Property Address: (No Address) APN No. 38803026

City, State, Zip Selma, CA 93662

Based on your knowledge of the site and adjacent properties, please check the best response to the questions below. Please answer the questions in good faith and to the extent of your knowledge. Please explain each "YES" response (use additional pages as necessary).

		Yes	No	Unknown
1a	Is the site used for an industrial use?	☐	☑	☐
1b	Are any adjacent properties used for an industrial use?	☐	☑	☐
2a	Do you have any knowledge that the site has been used for industrial function in the past?	☐	☑	☐
2b	Do you have any knowledge that any adjacent property has been used for an industrial function in the past?	☐	☑	☐
3a	Is the site used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo development laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility? (If yes, indentify which)	☐	☑	☐

3b	Are any of the adjacent properties used as gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo development laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility? (If yes, indentify which)	☑	☐	☐
4a	Do you have any knowledge that the site has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo development laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility? (If yes, indentify which)	☐	☑	☐
4b	Do you have any knowledge that adjacent property has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo development laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility? (If yes, indentify which)	☑	☐	☐
5a	Are there currently any damaged or discarded automotive or industrial batteries, pesticide or paint containers, or other chemicals in individual containers or greater that 5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the site?	☐	☑	☐
5b	Do you have knowledge that there have been previously any damaged or discarded automotive or industrial batteries, pesticide or paint containers, or other chemicals in individual containers or greater that 5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the site?	☐	☑	☐
6a	Are there currently any industrial drums, typically 55 gal (208 L) or sacks of chemicals located on the site?	☐	☑	☐
6b	Do you have knowledge that previously there have been any industrial drums, typically 55 gal (208 L) or sacks of chemicals located on the site?	☐	☑	☐
7a	Has fill dirt been brought onto the site that originated from a contaminated property?	☐	☑	☐
7b	Do you have any knowledge that fill dirt has been brought onto the site that is from an unknown origin?	☐	☑	☐
8a	Are there currently any pits, ponds, or lagoons located on the site in connection with waste treatment or waste disposal?	☐	☑	☐
8b	Do you have any knowledge that there previously have been any pits, ponds, or lagoons located on the site in connection with waste treatment or waste disposal?	☐	☑	☐
9a	Is there currently any soil stained by hazardous materials or	☐	☑	☐

petroleum products on the site?

9b	Do you have any knowledge that there previously has been soil stained by hazardous materials or petroleum products on the site?	☐	☑	☐	
10a	Are there currently any registered or unregistered storage tanks (above or underground) located on the site?	☐	☑	☐	
10b	Do you have any knowledge that there previously have been any registered or unregistered storage tanks (above or underground) located on the site?	☐	☑	☐	
11a	Are there currently any vent pipes, fill pipes, or access way indicting a fill pipe protruding from the ground on the site or adjacent to any structure located on the site?	☑	☐	☐	USED FOR IRRIGATION
11b	Do you have any knowledge that there previously have been any vent pipes, fill pipes, or access way indicting a fill pipe protruding from the ground on the site or adjacent to any structure located on the site?	☑	☐	☐	USED FOR IRRIGATION
12a	Are there currently any flooring, drains, or walls located on the site that are stained by substances other than water or are emitting foul odors?	☐	☑	☐	
12b	Do you have any knowledge that there previously have been any flooring, drains, or walls located on the site that are stained by substances other than water or are emitting foul odors?	☐	☑	☐	
13a	If the site is served by a private well or non-public water system, do you have any knowledge that contaminates have been identified in the well or system that exceed guidelines applicable to the water system?	☐	☑	☐	
14	Do you have any knowledge of environmental liens or governmental notification relating to past or recurrent violations of environmental laws with respect to the site or any facility located on the site?	☐	☑	☐	
15a	Do you have any knowledge of any current use, manufacture, storage, or disposal of hazardous substance or petroleum products on the site?	☐	☑	☐	
15b	Do you have any knowledge of any past use, manufacture, storage, or disposal of hazardous substance or petroleum products on the site?	☐	☑	☐	
15c	Do you have any knowledge of the current existence of any environmental violations with respect to the site or any facility located on the site?	☐	☑	☐	

15d	Do you have any knowledge of the past existence of any environmental violations with respect to the site or any facility located on the site?	☐	☑	☐
16	Do you have any knowledge of any environmental site assessment of the site that indicates the presence of hazardous substances or petroleum products on, or contamination of, the site or recommended further assessment of the site?	☐	☑	☐
17	Do you have any knowledge of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum products involving the site by any existing or former owner or occupant of the site or adjacent property?	☐	☑	☐
18a	Does the site discharge waste water (excluding sanitary waste or storm water) onto or adjacent to the site and/or into a storm water system?	☐	☑	☐
18b	Do you have any knowledge of any adjacent property that discharges waste water (excluding sanitary waste or storm water) onto or adjacent to the site and/or into the storm water system?	☐	☑	☐
19	Do you have any knowledge that any hazardous substance or petroleum products, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials have been dumped above grade, buried and/or burned on the site?	☐	☑	☐
20	Is Polychlorinated Biphenyls (PCB) in electrical transformers, capacitors, or other hydraulic equipment present on the site or are they any records of indicating past presents of equipment related to PCB?	☐	☑	☐
21a	Are any of the following documents regarding the site available for review: environmental site assessment reports; environmental audit reports; environmental permits; registration for above and/or underground storage tanks; material safety data sheets; community right-to-know plans regarding safety, preparedness and prevention, spill prevention, countermeasure, and/or disaster/emergency control; hydro geological reports; notices or correspondence from any governmental agency relating to past or current violations of environmental laws and/or environmental liens encumbering the site; hazardous waste generator notices or reports; geotechnical studies?	☐	☑	☐
21b	Do you have any knowledge that there have previously been any man-made structures (e.g., buildings, docks/platforms, railroad	☐	☑	☐

tracks, etc.) on the site? (If so, indicate the approximate construction date and use the structures(s))

Response to this questionnaire was prepared by:

Name(s): Jesse Allen Williams

Title(s): Consultant Engineer

Firm: AW Engineering

Address: 724 N. Ben Maddox Way, Ste A
Visalia, CA 93292

Phone#: 559-967-8089

Relationship to the site (e.g. Owner Site Manager, Agent, Tenant, etc): Consultant

Years Associated with the site: 2 years

The foregoing information, including comments and attachments (if any), is true and complete to the best of the undersigned's knowledge, information, and belief. Any limitations with respect to the completeness of the responses have been disclosed.

(Preparer Signature) 3-16-22 (Date)

(Preparer Signature) (Date)

(Preparer Signature) (Date)

To qualify for one of the *Landowner Liability Protections* (*LLPs*) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the *"Brownfields Amendments"*), the *user* must provide the following information to the *environmental professional*. Failure to provide this information could result in a determination that "*all appropriate inquiry*" is not complete.

The following was filled out by Jesse Allen Williams *who we understand is considering purchasing the subject site.*

1. Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state, or local law? (40 CFR 312.25)

Please checkmark the most appropriate response:

- ☑ I *have not* reviewed the records and ***do not know*** if there are any filed or recorded environmental liens.
- ☐ I *have* reviewed the records, and ***No, there aren't any*** filed or recorded environmental liens.
- ☐ I *have* reviewed the records, and ***Yes, there are*** environmental liens. Explain:

2. Are you aware of any activity and land use limitations (AULs), such as engineering controls, land use restrictions, or institutional controls, that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state, or local law? (40 CFR 312.26)

Please checkmark the most appropriate response:

- ☑ I *have not* reviewed the records and ***do not know*** if there are any filed/recorded AULs or any AULs in place at the site.
- ☐ I *have* reviewed the records, and ***No, there aren't any*** filed/recorded AULs or any AULs in place at the site.
- ☐ I *have* reviewed the records, and ***Yes, there are*** AULs filed, recorded, and/or in place at the site. Explain:

3. Does the Title Report provide any information pertaining to environmental cleanup liens or activity and use limitations (AULs) for the subject property?

Please checkmark the most appropriate response:

- ☑ I *have not* reviewed the Title Report and ***do not know*** if it provides environmental cleanup liens or AULs information.
- ☐ I *have* reviewed the Title Report, and ***No, it does not*** provide environmental cleanup liens or AULs information.
- ☐ I *have* reviewed the Title Report, and ***Yes, it does provide*** environmental cleanup liens or AULs information. Explain:

4. As the user of this ESA, do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business? (40 CFR 312.28)

Please checkmark the most appropriate response:

- ☑ ***No***, I *do not* have any specialized knowledge and/or experience related to the property or nearby properties.
- ☐ ***Yes***, I *do* have specialized knowledge and/or experience related to the property or nearby properties. Explain:

5. As the user of this ESA, based on your knowledge and experience related to the property, are you aware of any information pertaining to a reduction in value for the subject property relative to any known environmental issues?

Please checkmark the most appropriate response:

☑ *No*, I *do not* have any information about a reduction in property value relative to environmental issues.

☐ *Yes*, I *do* have information about a reduction in property value relative to environmental issues. Explain:

6. Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? (40 CFR 312.30)

a. What are the past uses of the property?

☑ I *do not* know.

☐ I *do* know. Explain:

b. What (if any) specific chemicals are present, or once were present, at the property?

☑ I *do not* know.

☐ I *do* know. Explain:

c. What (if any) spills or other chemical releases have taken place at the property?

☑ I *do not* know.

☐ I *do* know. Explain:

d. What (if any) environmental cleanups have taken place at the property?

☑ I *do not* know.

☐ I *do* know. Explain:

7. The purpose of this Phase I ESA is . . . (checkmark all that apply)

- ☑ to assess the environmental conditions of a property, taking into account commonly and reasonably ascertainable information.
- ☑ to identify the possible presence of recognized environmental conditions associated with possible soil and groundwater contamination at the site.
- ☑ to understand potential environmental conditions that could materially impact the operation of business associated with the parcel.
- ☑ to identify the possible presence of recognized environmental conditions that could materially impact the operation of the business associated with the parcel of commercial real estate.

8. As the user of this ESA, based on your knowledge and experience related to the property, are there any obvious indicators that point to the presence or likely presence of contamination or hazardous materials handling at the property or adjoining properties? (40 CFR 312.31)

Please checkmark the most appropriate response:

- ☑ ***No***, I *do not know and/or do not have any experience with* any obvious indicators that point to the presence or likely presence of contamination at the property or adjoining properties.
- ☐ ***Yes***, I *do know of and/or do have experience with* obvious indicators that point to the presence or likely presence of contamination at the property or adjoining properties. Explain:

This questionnaire was completed by (please print):

Name	Jesse Allen Williams
Title	Consultant
Firm	AW Engineering
Street Address	724 N. Ben Maddox Way, Ste A
City, State, Zip Code	Visalia, CA 93292
Phone Number	559-967-8089
email	awengineering09@gmail.com
What is the preparer's relationship to the property (i.e., seller, buyer, occupant, property manager, employee, agent, consultant, etc.)?	Consultant

The preparer represents that to the best of the preparer's knowledge the above statements and facts are true and correct, and to the best of the preparer's knowledge, no material facts have been suppressed or misstated.

Signature **Date**

Please fax this form to ***Haro Environmental (fax 805.832.6081)****, email a copy to info@haroenv.com, or mail a copy to the following address.*

Haro Environmental, Inc.
1065 Higuera Street, Suite 301
San Luis Obispo, California 93401
Attention: Elliot Haro
Phone: (805) 204-4483

APPENDIX C

PHOTOLOG

Photo #1 View of the southern portion of the Site, facing southeast.

Photo #2 View of the central portion of the Site and irrigation ditch infrastructure, facing northeast.

Photo #3 View of the northern portion of the Site, facing east.

Photo #4 View of the northwest corner of the Site, facing north-northeast.

Photo #5 View of a groundwater well and tank near the northwest corner of the Site, facing west.

Photo #6 View of the northern property boundary and residential land use to the north, facing east-northeast.

Photo #7 View of the southern portion of the Site, facing east-northeast.

Photo #8 View of the southern property boundary and residential land use to the south, facing east.

Photo #9 View of the eastern property boundary and school to the east, facing north.

Photo #10 View of a groundwater well and AST adjacent to the south of the Site, facing east.

Photo #11 View of a groundwater well west of the Site and gas station to the west, facing south.

Photo #12 View of the irrigation ditch infrastructure near the western portion of the Site, facing northwest.

APPENDIX D

QUALIFICATIONS

ELLIOT R. HARO
Principal Scientist

Mr. Haro is the founding principal of Haro Environmental, Inc. With over 17 years of experience in the environmental consulting field, Mr. Haro has directed, managed and performed environmental site assessments, as well as site investigation and remediation activities. As Principal Scientist, Mr. Haro's responsibilities include project management, proposal and cost estimate preparation, design of soil and groundwater investigation and remediation programs, staff and subcontractor coordination, technical report preparation, and permit acquisition. Mr. Haro has managed and performed numerous Phase I and Phase II Environmental Site Assessments (ESAs) as well as site investigation and remediation field activities including air, soil, groundwater, and surface water sampling, groundwater monitoring well installations, and remediation system operations and maintenance. He has prepared various environmental reports including site assessment reports, feasibility studies, remedial/corrective action plans, remedial work plans and health-based risk evaluations. Mr. Haro is familiar with the regulatory process and has consulted with both local and regional agencies on Client's behalf for work plan approvals and modifications. Mr. Haro's technical expertise includes evaluation, design and implementation of innovative in-situ groundwater treatment technologies including enhanced bioremediation and in-situ chemical oxidation.

EXPERTISE

- Program Management
- Phase I and II Environmental Site Assessments
- Soil and Groundwater Investigations
- Soil and Groundwater Remediation
- Remediation Technology Evaluation
- Site Characterization
- Remediation System Operations and Maintenance
- Health Risk Evaluations
- Feasibility Studies
- Data Analysis and Management
- Construction Oversight
- Permitting – Environmental and Construction

WORK HISTORY

• Haro Environmental, Inc.	2013 to Present
• Equipoise Corporation	2007 to 2013
• Rincon Consultants, Inc.,	2004 to 2007
• TN & Associates	2003 to 2004
• Environmental Biotechnology Inst.	2002 to 2004
• Creek Environmental Laboratory	1999 to 2002

EDUCATION AND CERTIFICATIONS

- Registered Environmental Assessor I (REA I), California, No. 30228 (Former; DTSC discontinued the REA program effective July1, 2012)
- M.S., Agriculture – Soil Science Specialization, California Polytechnic State University, San Luis Obispo, CA
- B.S., Soil Science, California Polytechnic State University, San Luis Obispo, CA
- OSHA and EPA 40-hour safety training and 8-hour hazardous materials refresher courses

PROJECT DESCRIPTIONS

Groundwater Remediation and Agency Closure, SRI PADMA LLC, Santa Barbara, CA

- Groundwater Monitoring and Sampling Management
- In-Situ Bioremediation
- Permitting
- Regulatory Agency Negotiations
- Remediation Reporting
  - Target compounds: PCE & TCE
  - In-Situ Chemical Reduction Work Plan
  - Health and Safety
- Remediation System Design
- Groundwater Monitoring Well Destructions

Mr. Haro is the program manager for the remediation of the chlorinated solvents TCE and PCE in groundwater at a former manufacturing facility in Santa Barbara, CA. The site is located in a historic industrial area, which has recently been transformed into an urban wine trail area known as the “Funk Zone”. Haro Environmental worked with the remediation contractor, Regenesis, to perform a soil assessment to gather detailed information regarding the lithology beneath the site, and to develop an appropriate injection program based on the findings. For this site, a combined remedy was selected and included the injection of Plumestop, Hydrogen Release Compound, and BDI Plus, a bioaugmentation formulation. After two months, wells within the treatment zone exhibited reductions of TCE and PCE to non-detectable concentrations. The case is currently being considered for closure under oversight by the CCRWQCB.

Retail Service Station Portfolio, Various Locations, CA

- Groundwater Monitoring and Sampling Management
- In-Situ Bioremediation
- Permitting
- Regulatory Agency Negotiations
- Quarterly Reporting
- Target compounds: Hydrocarbons and MTBE
- Interim Remedial Action Plans
- Remedial and Corrective Action Plans
- Health and Safety
- Remediation System Design
- Multiphase and Dual Phase Extraction Systems

Managed project activities for monitoring and cleanup of multiple gas station facilities throughout Northern, Central and Southern California. Evaluated in-situ and ex-situ treatment options for source zone reduction and off-site containment of contaminants.

Performed and managed operations and maintenance activities on remediation systems and prepared quarterly remediation reports. Prepared quarterly groundwater monitoring reports for agency submittal and approval. Prepared corrective actions plans and remedial action plans for implementation of mobile high vacuum dual phase extraction, multi-phase extraction, and dual-phase extraction systems. Designed and permitted innovative groundwater remediation approaches including enhanced aerobic bioremediation using ORC®. Negotiated with overseeing agencies for acceptance of proposed remedial actions.

Phase I Environmental Site Assessment, Remediation Engineering Evaluation, & Indoor Air Quality Assessment, Former Aircraft Manufacturing Facility, Playa Vista, CA

- Phase I ESA
- Remediation System Performance Evaluation
- Historic Chlorinated VOC and Hydrocarbon Use
- 550,000 Square Feet of Building Space

Performed a Phase I ESA for an approximately 38-acre site developed with 8 historic structures totaling approximately 550,000 square feet. Historic aircraft manufacturing resulted in chlorinated VOCs and petroleum hydrocarbon impacts to soil and groundwater. Identified recognized environmental conditions (RECs) at 11 source areas. Consulted client on extent of environmental liabilities and potential environmental costs. Evaluated the performance of the on-site dual-phase extraction system targeting identified source areas. Developed potential life-cycle costs for the existing remediation system, and costs for remediation of metals contaminated soil. Performed an indoor air survey to assess potential impacts from the historic aircraft manufacturing operations on indoor air quality. Indoor air study results were compared to published regulatory thresholds and calculated site-specific health risks.

Soil, Soil Vapor, and Groundwater Investigation – Buckley Road Area TCE Investigation, San Luis Obispo, CA

- Phase II ESA
- Multiple Potential Responsible Parties
- TCE In Groundwater
- Other COCs: PFAS

A regional TCE plume located south of the San Luis Obispo County Regional Airport is being investigated to identify a possible source. Haro Environmental, Inc. was contracted with one of the potentially responsible parties to investigate the property as a possible source of the TCE in groundwater. A work plan was developed and approved by the lead regulatory agency, Central Coast Regional Water Quality Control Board, for the advancement of two soil borings and the collection and analysis of soil, soil vapor, and groundwater samples. The results were used to clear the client as a responsible party.

Soil and Groundwater Investigation of Per- and Polyfluoroalkyl Substances (PFAS), Meadows Field Airport, Bakersfield, CA

- Soil Sampling Work Plan
- Well Investigation
- Soil Borings and Sampling
- Data Report and Data Analysis
- Target compounds: PFAS
- Health and Safety Plan Preparation
- Lead Agency: Central Valley Regional Water Quality Control Board

PFAS compounds are an emergent set of chemicals that have come to the forefront of environmental concern due to their toxicity and stability in the environment. To evaluate the distribution of PFAS in the environment, the State Water Resources Control Board through their nine regional boards required multiple airports within California perform site investigation for PFAS compounds based on the high concentration of PFAS used in firefighting foams [also known as aqueous film forming foams (AFFF)]. The Meadows Field Airport was one of the airports listed in the requirements order. Haro Environmental prepared a work plan to investigate PFAS in soil which included a sampling and analysis program to sample soil at multiple potential release points as wells at multiple depths. A soil sampling report was prepared for the CVRWQCB and will be followed up with a groundwater investigation work plan based on the soil sampling results.

Soil and Groundwater Remediation of Chlorinated Solvents using Chemical Oxidation, Former Aerospace Manufacturing Facility, Newbury Park, CA

- Groundwater Monitoring and Sampling Management
- In-Situ Chemical Oxidation using Potassium Permanganate
- Injection and Monitoring Well Installations
- Quarterly WDR Reporting
- Target compounds: Chlorinated VOCs
- Health and Safety Plan Preparation
- Lead Agency Negotiations

Managed in-situ chemical oxidation injections for remediation of soil and groundwater impacted with the chlorinated solvents TCE and PCE. Negotiated with the lead agency (LARWQCB) for revised Waste Discharge Requirements (WDR) and amendments to the original work plan. Developed and implemented a site-specific health and safety plan to protect the health and safety of workers and the environment from accidental exposure to the chemical oxidant. Oversaw the installation of 35 injection wells and 14 dual-nested monitoring wells, and the injection of approximately 12,000 pounds of potassium permanganate. Conducted performance evaluation sampling per WDR requirements, and prepared and submitted quarterly WDR monitoring reports to the regulatory agency.

Soil and Groundwater Remediation of Chlorinated Solvents, Soil Source Zone Removal and In-Situ Bioremediation, Former Industrial Facility, Los Angeles, CA.

- Groundwater Monitoring and Sampling Management
- Large Diameter Auger Excavation
- Enhanced Anaerobic Bioremediation
- Soil Vapor Survey
- Injection and Monitoring Well Installations
- Quarterly WDR Reporting
- Target compounds: Chlorinated VOCs
- Health and Safety Plan Preparation
- Lead Agency Negotiations

Managed soil and groundwater investigation and remediation activities for a site with soil and perched groundwater water zone with chlorinated hydrocarbons present. A Remedial Action Plan (RAP) was developed and approved by the LARWQCB to remediate soil and groundwater at the site. Because site constraints precluded the use of conventional excavation approaches without extensive shoring requirements, soil remediation activities included the design and implementation of source area soil removal using large diameter augers. Groundwater remediation activities included acquisition of a Waste Discharge Requirement (WDR) permit from the LARWQCB for injection of HRC® into the perched zone, injection design, and implementation of an Enhanced Anaerobic Biodegradation approach to stimulate by injecting HRC®.

RCRA Facility Closure, Former Hazardous Waste Handling Facility, Wilmington, CA

- Lead Agency: DTSC
- RCRA Hazardous Waste Permit Closure
- Port of Los Angeles Permitting
- Health and Safety Plan Preparation
- DTSC Approval of Work Plan Updates and Modifications

Managed work plan modification/updating and permitting for a closure of a RCRA hazardous waste permit under DTSC oversight. This former hazardous waste handling facility was the subject of an enforcement action by the lead regulatory agency and resulted in the conviction of the former operator. The chemicals associated with the facility included VOCs and petroleum hydrocarbons. Negotiated with DTSC for work plan modification resulting in a reduction of $70,000 in the sampling costs.

Feasibility Study, Former Aerospace Testing Facility, CA

- Chlorinated VOCs
- Emergent Compounds 1,4-dioxane and NDMA
- In-Situ and Ex-Situ Treatment Options
- Conforming to Lead Agency Requirements

Provided technical assistance for preparation of a feasibility study for remediation of a 2,800-acre former test site facility being closed after 50 years of storied operations. The feasibility study in part addressed the emergent chemicals 1,4-dioxane and N-nitrosodimethylamine (NDMA). These chemicals are somewhat recalcitrant in the environment and are the subject of research at many DOD-sponsored projects. Evaluated innovative remedial alternatives including enhanced aerobic bioremediation

and in-situ chemical oxidation. Prepared a bench-scale work plan and reported the findings evaluating sodium persulfate and propane to reduce NDMA concentrations in groundwater.

Former Oil Field Sumps Assessment and Remediation, Santa Maria Valley, CA

- Sump Assessment and Remediation
- Remediation construction
- Target compounds: Metals, volatile and semi-volatile organics, hydrocarbons,
- Soil Excavation
- Health and Safety Plan Preparation

Project manager for sump assessment and remediation activities for multiple land leases within the Santa Maria Valley. Former oil field features were identified by reviewing historic maps and aerial photographs. The lateral and vertical limits of identified features were assessed in the field using direct push technology. Non-hazardous sump material was excavated and transported to a local landfill for reuse. Confirmation samples were collected and based on the results, closure reports were prepared and submitted to the lead oversight agency (County Santa Barbara Fire Prevention Division).

Operations and Maintenance, Ex-situ Bioremediation, San Luis Obispo, CA

- Groundwater monitoring well installation
- Groundwater sampling
- Remediation construction
- Vapor extraction system O&M
- Soil Excavation
- Field safety coordinator

Feasibility Study and Remedial Action Plan, Thousand Oaks, CA

- Project Coordinator
- Oversee field activities
- Permitting
- Conducted dual phase extraction events
- Managed and performed O & M

Site Investigations, Multiple Clients

- Oversee well installation
- Oversee boring installation
- Remediation construction
- Perform Monitoring and Optimization.
- Soil and Soil Vapor Sampling
- Risk Analysis
- Managed Subcontractors
- Construction

Publications

Roth, A. E., Lingle, E. L., Haro, E. R., Stark, J. M., Unkefer, P. J. and Kitts, C. L. 2005. *Sample Preservation Method and Storage Time Can Affect 16S rRNA Terminal Restriction Fragment Patterns Made From Soil DNA.* Soil Biology and Biochemistry.

Attachment G
Limited Soils Investigation Report

July 31, 2023

Mr. Jeff Oliveira
Oliveira Environmental Consulting, LLC
PO Box 1274
San Luis Obispo, CA 93406

Limited Soils Investigation Report
2850 Nebraska Avenue
Selma, California

Dear Mr. Oliveira:

Haro Environmental, Inc. is pleased to present this letter report presenting the findings of a limited soils investigation performed at the property located at 2850 Nebraska Avenue in Selma, California (the Site). This limited soils investigation has been performed at the request of Oliveira Environmental Consulting, LLC who we understand is representing the project proponent who is considering developing the Site. A Site Vicinity Map is provided on Plate 1 and a Site Plan with Sampling Locations is provided on Plate 2. The primary objective of the limited soils investigation was to evaluate the findings from a Phase I Environmental Site Assessment (Phase I ESA), which identified historic agricultural uses of the Site.

To ensure consistent methodologies were applied, the soil sampling activities were performed generally consistent with the procedures and methodologies presented in the *Interim Guidance for Sampling Agricultural Properties* (Third Revision) published by the California Department of Toxic Substance Control (DTSC Guidance; DTSC, 2008). The site setting, project background and objective, scope of work, analytical results and discussion, and conclusions are presented below.

SITE SETTING

The Site occupies approximately 15.6 acres located near the northeastern corner of Nebraska Avenue and Highland Avenue, in an area of residential and commercial land uses (Plate 1). Elevation at the Site is approximately 300 feet above mean sea level. The Site is currently vacant, undeveloped land.

The nearest surface water body is Dudley Pond, mapped approximately 1,850 feet to the southwest of the Site. One groundwater well was observed at the northwest corner of the Site.

PROJECT BACKGROUND

Haro Environmental was contracted by Oliveira Environmental Consulting, LLC to perform a Phase I ESA of the Site. A review of the data gathered indicates the Site was historically used for agricultural land use from at least 1937 through at least 1998. Surrounding properties were also used for agriculture, with the northern parcels converted to residential neighborhoods circa 2006, and the property to the east developed with a school by 1957. Because agricultural practices typically included the application of chemicals for pest control, there is a potential that residual concentrations of agricultural chemicals above regulatory screening levels could persist in soil at the Site. Therefore, to address the findings of the Phase I ESA, the soil sampling reported herein was performed. The objective of the soils investigation was to identify the presence or absence of pesticides and arsenic at locations within the Site boundaries that may have been

impacted by historical agricultural operations. In addition, based on the historical use of leaded gasoline prior to 1987, there is a potential for elevated concentrations of lead to be present in shallow soils along roads and highways constructed prior to this date. Lead concentrations in soils near highways are often attributed to emissions from vehicles powered by internal-combustion engines, which previously used leaded gasoline. At roads where the adjacent subgrade has not been disturbed, the presence of aerially deposited lead (ADL) is generally limited to the upper 3 feet of soil and typically does not extend farther than 30 feet from the roadway. Because development of the property near Nebraska Avenue is within 30 feet of the road, ADL sampling was also included as part of this limited soils investigation.

SCOPE OF WORK

On June 21, 2023, Haro Environmental collected soil samples from 26 locations at the Site for chlorinated pesticide and arsenic testing, and two samples for lead testing. The pesticide/arsenic soil sampling locations were selected by dividing the land into quadrants and selecting multiple locations from each quadrant in an attempt to provide spatial distribution. The lead sampling locations were selected to assess lead concentrations in soil near Nebraska Avenue. The soil sampling locations are shown on Plate 2. The soil samples were collected from between the soil surface and 6 inches below ground surface from each location, transferred into glass jars, placed into a cooler with blue ice, and transferred to Eurofins/Calscience Laboratories of Garden Grove, California, a State-certified analytical laboratory, for analysis of arsenic using Untied States Environmental Protection Agency (USEPA) Test Method 6010B, organochlorine pesticides using USEPA Test Method 8081A, and lead using USEPA Test Method 6010B.

The DTSC Guidance indicates that for a 16-acre property, 26 soil samples should be collected and composited into 7 samples for pesticides analysis. The DTSC Guidance also recommends that seven discrete samples be submitted for analysis of arsenic. Therefore, the laboratory was instructed to test only seven discrete samples for arsenic (SB6, SB9, SB12, SB14, SB16, SB23, and SB25) and composite the pesticide samples as follows:

- SB1 through SB4 into COMP 1
- SB5 through SB8 into COMP 2
- SB9 through SB12 into COMP 3
- SB13 through SB16 into COMP 4
- SB17 through SB20 into COMP 5
- SB21 through SB23 into COMP 6
- SB24 through SB26 into COMP 7

ANALYTICAL RESULTS AND DISCUSSION

The soil sampling results were screened against published regulatory agency thresholds to evaluate the results and determine if additional sampling was warranted. The screening levels used for this assessment included the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) Environmental Screening Levels (ESLs; SFBRWQCB, 2019), and the California Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (HERO) Note 3, DTSC-Modified Screening Levels for soil (DTSC-Modified SLs; DTSC, 2020). ESLs provide conservative screening levels for over 100 chemicals commonly found at sites with contaminated soil and groundwater, and they are intended to help expedite the identification and evaluation of potential environmental concerns at contaminated sites. DTSC-Modified SLs are published by the DTSC and represent recommended screening levels (derived using DTSC-modified exposure and toxicity factors) for constituents in soil, tap water, and ambient air. Based on the proposed future land use, the residential screening levels were applied. When residential cancer risk screening levels were not available, non-cancer risk screening levels were used. For several chemicals

there are no published ESLs or DTSC-Modified SLs. This is partially due to the laboratory reporting isomers or breakdown products of the listed chemicals which are not regulated but can provide insight into the historical use of chemicals at a property. Analytical results are summarized on Table 1, and a copy of the laboratory analytical report is provided in Attachment A.

The findings indicate the following:

- Arsenic was not detected above the laboratory reporting limit in any of the samples.

- Of the 22 pesticides tested for, only one, 4,4-DDE, was detected above the laboratory reporting limit. 4,4-DDE was detected in all seven composite soil samples at concentrations ranging from 8.4 to 20 micrograms per kilogram (µg/kg), which did not exceed the ESL or DTSC-Modified SL of 2,700 and 2,300 µg/kg, respectively.

- Lead was detected in both ADL samples (ADL1 and ADL2) at concentrations of 29.8 and 35.9 mg/kg, respectively. These concentrations did not exceed the ESL or DTSC-Modified SL of 82 and 80 mg/kg, respectively. In addition, lead concentrations did not exceed the thresholds to require soluble lead testing for disposal purposes.

CONCLUSIONS AND RECOMMENDATIONS

Because the reported concentrations of chlorinated pesticides, arsenic, and lead were detected either below the laboratory reporting limits or below the risk-based regulatory screening levels, it is our opinion that historic agricultural activities within the Site boundaries have not resulted in residual concentrations of pesticides or arsenic that would pose a health risk to current and future Site residents, and that ADL is not present near Nebraska Avenue at concentrations that would pose a health risk to current and future Site residents. Therefore, additional investigation or mitigation for the concentrations of chemicals detected during this investigation does not appear warranted at this time. Although arsenic and lead were not detected at concentrations requiring special handling and disposal during this limited soil assessment, future workers should be prepared to take appropriate precautions if arsenic- or ADL-impacted soils are encountered.

LIMITATIONS

This report has been prepared for and is intended for the exclusive use of Oliveira Environmental Consulting, LLC. Oliveira Environmental Consulting, LLC can convey this report to an affiliate, related entity, subsidiary, lender, title insurer, regulatory/city agency or current property owner(s) and their agents, but further dissemination requires prior written approval from Haro Environmental.

Our conclusions regarding the Site are based on the results of a limited soil sampling program. The results of this evaluation are qualified by the fact that only limited sampling and analytical testing was conducted during this assessment.

The concentrations of chemicals detected at any given location may not be representative of conditions at other locations. Further, conditions may change at any particular location as a function of time in response to natural conditions, chemical reactions and other events. Conclusions regarding the condition of the Site do not represent a warranty that all areas within the Site are similar to those sampled.

If you have any questions regarding the information presented in this report, please contact Elliot Haro at 805.204.4483.

Sincerely,

HARO ENVIRONMENTAL, INC.

Elliot R Haro,
Principal Scientist

Steve Elliott
Professional Geologist #9060

PROFESSIONAL GEOLOGIST
STEPHEN L. ELLIOTT
9060
STATE OF CALIFORNIA

Attachments:

Plates:	Plate 1 Site Vicinity Map
	Plate 2 Sampling Locations Map
Tables:	Table 1 Soil Analytical Testing Summary – Chlorinated Pesticides, Arsenic, and Lead
Attachments:	Attachment A – Laboratory Analytical Report

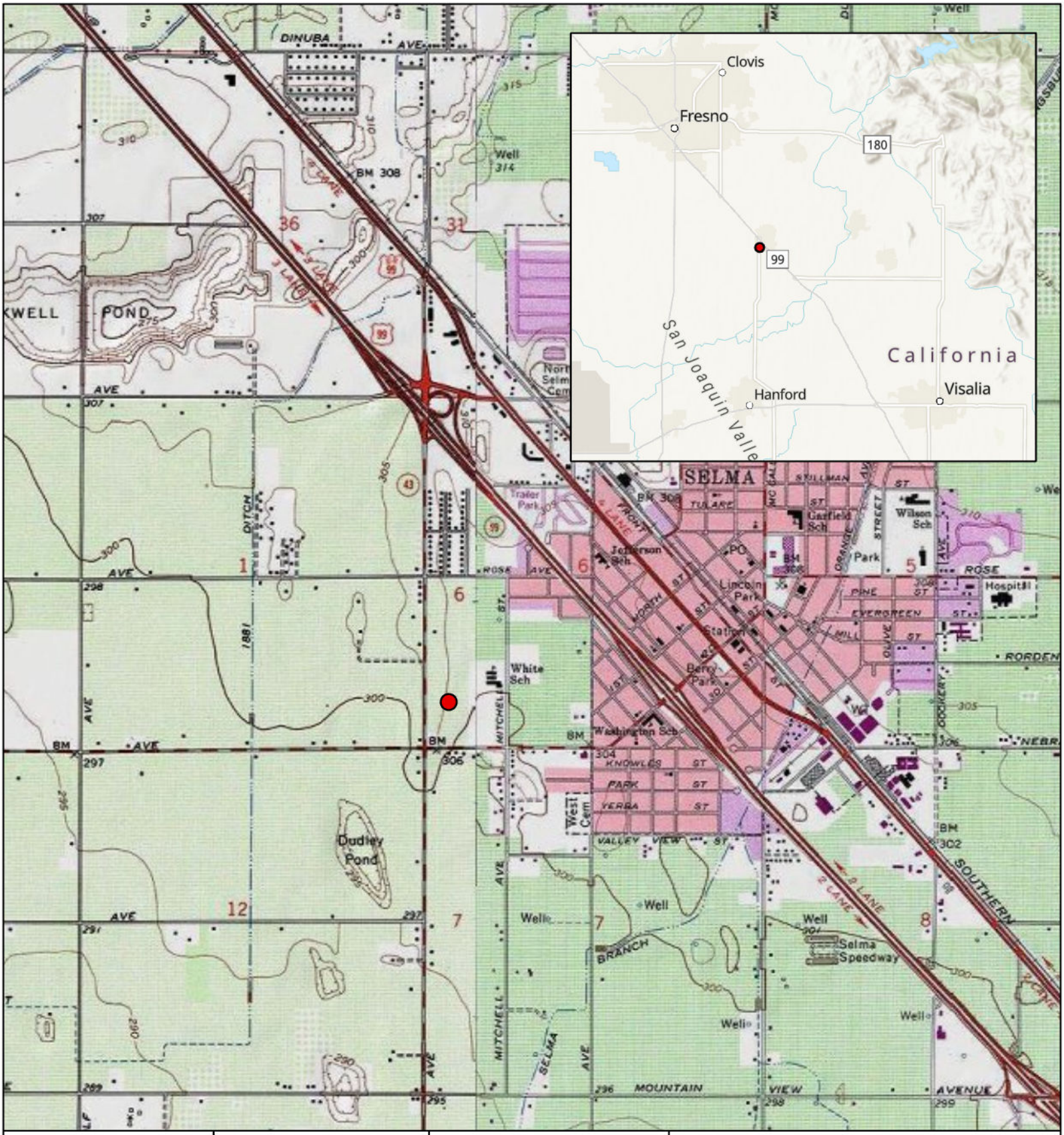
References:

California Department of Toxic Substances Control (DTSC). 2008. *Interim Guidance for Sampling Agricultural Properties (Third Revision)*. August 7, 2008.

DTSC, Human and Ecological Risk Office (HERO). 2020. *Human Health Risk Assessment (HHRA) Note Number 3, DTSC-modified Screening Levels (DTSC-SLs)*. Revised June 2022.

San Francisco Bay Regional Water Quality Control Board (SFBRWQCB). 2019. *Environmental Screening Levels*. January 2019, Revision 2.

PLATES



HARO ENVIRONMENTAL

872 Higuera Street
San Luis Obispo, CA 93405
Phone: 805.204.4483
www.haroenv.com

0 0.25 0.5 Miles

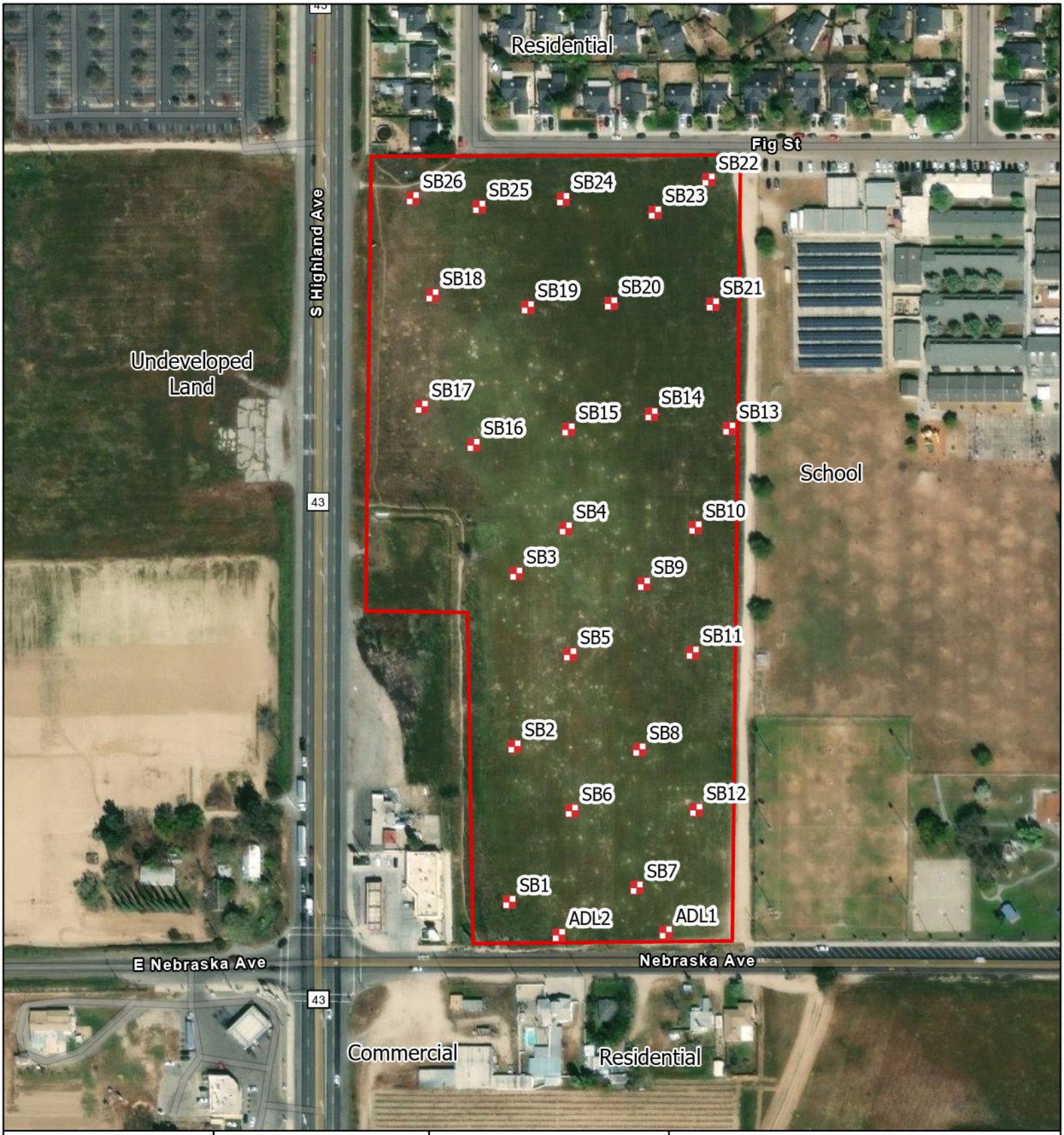
1:29,350

N

2850 Nebraska Avenue
Selma, CA 93662

Project Location

Plate 1 - Site Vicinity Map



HARO ENVIRONMENTAL

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0 150 300 Feet

1:3,100

N

2850 Nebraska Avenue
Selma, CA 93662

Soil Boring
Property Boundary

Plate 2 - Sampling Locations Map

TABLE

Table 1
Soil Analytical Testing Summary - Chlorinated Pesticides, Arsenic, and Lead
2850 Nebraska Avenue, Selma, CA

Sample ID	Aldrin	Alpha-BHC	Alpha-Chlordane	Beta-BHC	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Delta-BHC	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Endrin Ketone	Gamma-chlordane	Gamma-BHC	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene	Arsenic	Lead
	Results in µg/kg																						mg/kg	
SB1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COMP 1	<4.9	<4.9	<4.9	<4.9	<25	<4.9	*10*	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<25	NA	NA
SB5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<3.03	NA
SB7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COMP 2	<4.9	<4.9	<4.9	<4.9	<25	<4.9	*20*	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<25	NA	NA
SB9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<3.03	NA
SB10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<3.06	NA
COMP 3	<4.9	<4.9	<4.9	<4.9	<25	<4.9	*8.4*	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<25	NA	NA
SB13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<3.06	NA
SB15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<3.03	NA
COMP 4	<4.9	<4.9	<4.9	<4.9	<25	<4.9	*14*	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<25	NA	NA
SB17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COMP 5	<4.9	<4.9	<4.9	<4.9	<25	<4.9	*16*	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<25	NA	NA
SB21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<3.06	NA
COMP 6	<4.9	<4.9	<4.9	<4.9	<25	<4.9	*9.6*	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<25	NA	NA
SB24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<3.03	NA
SB26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
COMP 7	<4.9	<4.9	<4.9	<4.9	<25	<4.9	17	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<25	NA	NA

Sample ID	Aldrin	Alpha-BHC	Alpha-Chlordane	Beta-BHC	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Delta-BHC	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Endrin Ketone	Gamma-chlordane	Gamma-BHC	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene	Arsenic	Lead
	Results in µg/kg																						mg/kg	
ADL1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	*29.8*
ADL2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	*35.9*
ESLr:	35	NE	NE	NE	480	2,700	1,800	1,900	NE	37	420,000	NE	NE	21,000	NE	NE	NE	550	120	62	350,000	510	0.067	82
DTSC-Modified SLr:	39	86	NE	300	21	2,300	2,000	1,900	NE	34	450,000	NE	380,000	19,000	NE	NE	NE	570	130	70	320,000	490	0.11	80

Notes:
Samples collected June 21, 2023
NA = not analyzed
<3.06 = less than the laboratory reporting limit of 3.06 mg/kg
µg/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ESLr = Environmental Screening Level (residential land use); San Francisco Bay Regional Water Quality Control Board; Updated January 2019 (Rev. 2)
DTSC-Modified SLr = Residential Screening Level promulgated by the Human and Ecological Risk Office (HERO), California Department of Toxic Substances Control; June 2020 (revised May 2022)
NE = not established
Concentration in *italics* indicates a result above the laboratory reporting limit
Analysis: USEPA Test Method 8081A

ATTACHMENTS

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Elliot Haro
HARO Environmental
PO BOX 7002
Los Osos, California 93412

Generated 7/5/2023 10:50:23 AM

JOB DESCRIPTION

Selma

JOB NUMBER

570-142881-1

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin CA 92780

See page two for job notes and contact information.

my EOL

Eurofins Calscience

Job Notes

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Authorization

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Authorized for release by
Don Burley, Senior Project Manager
Donald.Burley@et.eurofinsus.com
(657)212-3033

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 570-142881-1

Laboratory: Eurofins Calscience

Narrative

Job Narrative
570-142881-1

Comments
No additional comments.

Receipt
The samples were received on 6/24/2023 10:05 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 15.8º C.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: HARO Environmental
Project/Site: Selma

Job ID: 570-142881-1

Client Sample ID: SB1 — Lab Sample ID: 570-142881-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB2 — Lab Sample ID: 570-142881-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB3 — Lab Sample ID: 570-142881-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB4 — Lab Sample ID: 570-142881-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB5 — Lab Sample ID: 570-142881-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB6 — Lab Sample ID: 570-142881-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB7 — Lab Sample ID: 570-142881-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB8 — Lab Sample ID: 570-142881-8

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB9 — Lab Sample ID: 570-142881-9

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB10 — Lab Sample ID: 570-142881-10

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB11 — Lab Sample ID: 570-142881-11

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB12 — Lab Sample ID: 570-142881-12

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: HARO Environmental
Project/Site: Selma

Job ID: 570-142881-1

Client Sample ID: SB13 — Lab Sample ID: 570-142881-13

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB14 — Lab Sample ID: 570-142881-14

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB15 — Lab Sample ID: 570-142881-15

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB16 — Lab Sample ID: 570-142881-16

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB17 — Lab Sample ID: 570-142881-17

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB18 — Lab Sample ID: 570-142881-18

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB19 — Lab Sample ID: 570-142881-19

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB20 — Lab Sample ID: 570-142881-20

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB21 — Lab Sample ID: 570-142881-21

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB22 — Lab Sample ID: 570-142881-22

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB23 — Lab Sample ID: 570-142881-23

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB24 — Lab Sample ID: 570-142881-24

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

This Detection Summary does not include radiochemical test results.

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Detection Summary

Client: HARO Environmental
Project/Site: Selma

Job ID: 570-142881-1

Client Sample ID: SB25 — Lab Sample ID: 570-142881-25

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: SB26 — Lab Sample ID: 570-142881-26

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Composited	yes				NONE	1		Composite	Total/NA

Client Sample ID: ADL1 — Lab Sample ID: 570-142881-27

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Lead	29.8		2.02		mg/Kg	5		6010B	Total/NA

Client Sample ID: ADL2 — Lab Sample ID: 570-142881-28

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Lead	35.9		2.04		mg/Kg	5		6010B	Total/NA

Client Sample ID: COMP 1 — Lab Sample ID: 570-142881-29

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	10		4.9		ug/Kg	1		8081A	Total/NA

Client Sample ID: COMP 2 — Lab Sample ID: 570-142881-30

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	20		4.9		ug/Kg	1		8081A	Total/NA

Client Sample ID: COMP 3 — Lab Sample ID: 570-142881-31

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	8.4		4.9		ug/Kg	1		8081A	Total/NA

Client Sample ID: COMP 4 — Lab Sample ID: 570-142881-32

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	14		4.9		ug/Kg	1		8081A	Total/NA

Client Sample ID: COMP 5 — Lab Sample ID: 570-142881-33

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	16		4.9		ug/Kg	1		8081A	Total/NA

Client Sample ID: COMP 6 — Lab Sample ID: 570-142881-34

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	9.6		4.9		ug/Kg	1		8081A	Total/NA

Client Sample ID: COMP 7 — Lab Sample ID: 570-142881-35

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	17		4.9		ug/Kg	1		8081A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: HARO Environmental
Project/Site: Selma

Job ID: 570-142881-1

Method: SW846 8081A - Organochlorine Pesticides (GC)

Client Sample ID: COMP 1
Date Collected: 06/21/23 00:00
Date Received: 06/24/23 10:05

Lab Sample ID: 570-142881-29
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:00	1
4,4'-DDE	**10**		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:00	1
4,4'-DDT	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:00	1
Aldrin	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:00	1
alpha-BHC	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:00	1
alpha-Chlordane	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:00	1
beta-BHC	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:00	1
Chlordane	ND		25		ug/Kg		06/29/23 10:27	07/03/23 18:00	1
delta-BHC	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:00	1
Dieldrin	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:00	1
Endosulfan I	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:00	1
Endosulfan II	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:00	1
Endosulfan sulfate	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:00	1
Endrin	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:00	1
Endrin aldehyde	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:00	1
Endrin ketone	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:00	1
gamma-Chlordane	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:00	1
gamma-BHC	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:00	1
Heptachlor	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:00	1
Heptachlor epoxide	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:00	1
Methoxychlor	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:00	1
Toxaphene	ND		25		ug/Kg		06/29/23 10:27	07/03/23 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*67*		*38 - 148*	*06/29/23 10:27*	*07/03/23 18:00*	*1*
DCB Decachlorobiphenyl (Surr)	*79*		*37 - 151*	*06/29/23 10:27*	*07/03/23 18:00*	*1*

Client Sample ID: COMP 2
Date Collected: 06/21/23 00:00
Date Received: 06/24/23 10:05

Lab Sample ID: 570-142881-30
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:15	1
4,4'-DDE	**20**		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:15	1
4,4'-DDT	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:15	1
Aldrin	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:15	1
alpha-BHC	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:15	1
alpha-Chlordane	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:15	1
beta-BHC	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:15	1
Chlordane	ND		25		ug/Kg		06/29/23 10:27	07/03/23 18:15	1
delta-BHC	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:15	1
Dieldrin	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:15	1
Endosulfan I	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:15	1
Endosulfan II	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:15	1
Endosulfan sulfate	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:15	1
Endrin	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:15	1
Endrin aldehyde	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:15	1
Endrin ketone	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:15	1
gamma-Chlordane	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:15	1
gamma-BHC	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:15	1
Heptachlor	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 18:15	1

Method: SW846 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: COMP 2
Date Collected: 06/21/23 00:00
Date Received: 06/24/23 10:05

Lab Sample ID: 570-142881-30
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:15	1
Methoxychlor	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:15	1
Toxaphene	ND		25	ug/Kg		06/29/23 10:27	07/03/23 18:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*80*		*38 - 148*	*06/29/23 10:27*	*07/03/23 18:15*	*1*
DCB Decachlorobiphenyl (Surr)	*92*		*37 - 151*	*06/29/23 10:27*	*07/03/23 18:15*	*1*

Client Sample ID: COMP 3
Date Collected: 06/21/23 00:00
Date Received: 06/24/23 10:05

Lab Sample ID: 570-142881-31
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:30	1
4,4'-DDE	**8.4**		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:30	1
4,4'-DDT	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:30	1
Aldrin	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:30	1
alpha-BHC	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:30	1
alpha-Chlordane	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:30	1
beta-BHC	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:30	1
Chlordane	ND		25	ug/Kg		06/29/23 10:27	07/03/23 18:30	1
delta-BHC	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:30	1
Dieldrin	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:30	1
Endosulfan I	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:30	1
Endosulfan II	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:30	1
Endosulfan sulfate	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:30	1
Endrin	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:30	1
Endrin aldehyde	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:30	1
Endrin ketone	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:30	1
gamma-Chlordane	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:30	1
gamma-BHC	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:30	1
Heptachlor	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:30	1
Heptachlor epoxide	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:30	1
Methoxychlor	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:30	1
Toxaphene	ND		25	ug/Kg		06/29/23 10:27	07/03/23 18:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*69*		*38 - 148*	*06/29/23 10:27*	*07/03/23 18:30*	*1*
DCB Decachlorobiphenyl (Surr)	*84*		*37 - 151*	*06/29/23 10:27*	*07/03/23 18:30*	*1*

Client Sample ID: COMP 4
Date Collected: 06/21/23 00:00
Date Received: 06/24/23 10:05

Lab Sample ID: 570-142881-32
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:45	1
4,4'-DDE	**14**		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:45	1
4,4'-DDT	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:45	1
Aldrin	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:45	1
alpha-BHC	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:45	1
alpha-Chlordane	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:45	1
beta-BHC	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:45	1

Method: SW846 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: COMP 4
Date Collected: 06/21/23 00:00
Date Received: 06/24/23 10:05

Lab Sample ID: 570-142881-32
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane	ND		25	ug/Kg		06/29/23 10:27	07/03/23 18:45	1
delta-BHC	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:45	1
Dieldrin	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:45	1
Endosulfan I	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:45	1
Endosulfan II	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:45	1
Endosulfan sulfate	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:45	1
Endrin	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:45	1
Endrin aldehyde	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:45	1
Endrin ketone	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:45	1
gamma-Chlordane	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:45	1
gamma-BHC	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:45	1
Heptachlor	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:45	1
Heptachlor epoxide	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:45	1
Methoxychlor	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 18:45	1
Toxaphene	ND		25	ug/Kg		06/29/23 10:27	07/03/23 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*74*		*38 - 148*	*06/29/23 10:27*	*07/03/23 18:45*	*1*
DCB Decachlorobiphenyl (Surr)	*90*		*37 - 151*	*06/29/23 10:27*	*07/03/23 18:45*	*1*

Client Sample ID: COMP 5
Date Collected: 06/21/23 00:00
Date Received: 06/24/23 10:05

Lab Sample ID: 570-142881-33
Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 19:00	1
4,4'-DDE	**16**		4.9	ug/Kg		06/29/23 10:27	07/03/23 19:00	1
4,4'-DDT	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 19:00	1
Aldrin	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 19:00	1
alpha-BHC	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 19:00	1
alpha-Chlordane	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 19:00	1
beta-BHC	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 19:00	1
Chlordane	ND		25	ug/Kg		06/29/23 10:27	07/03/23 19:00	1
delta-BHC	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 19:00	1
Dieldrin	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 19:00	1
Endosulfan I	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 19:00	1
Endosulfan II	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 19:00	1
Endosulfan sulfate	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 19:00	1
Endrin	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 19:00	1
Endrin aldehyde	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 19:00	1
Endrin ketone	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 19:00	1
gamma-Chlordane	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 19:00	1
gamma-BHC	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 19:00	1
Heptachlor	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 19:00	1
Heptachlor epoxide	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 19:00	1
Methoxychlor	ND		4.9	ug/Kg		06/29/23 10:27	07/03/23 19:00	1
Toxaphene	ND		25	ug/Kg		06/29/23 10:27	07/03/23 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*71*		*38 - 148*	*06/29/23 10:27*	*07/03/23 19:00*	*1*
DCB Decachlorobiphenyl (Surr)	*84*		*37 - 151*	*06/29/23 10:27*	*07/03/23 19:00*	*1*

Client Sample Results

Client: HARO Environmental
Project/Site: Selma

Job ID: 570-142881-1

Method: SW846 8081A - Organochlorine Pesticides (GC)

Client Sample ID: COMP 6
Date Collected: 06/21/23 00:00
Date Received: 06/24/23 10:05

Lab Sample ID: 570-142881-34
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 19:16	1
4,4'-DDE	**9.6**		4.9		ug/Kg		06/29/23 10:27	07/03/23 19:16	1
4,4'-DDT	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 19:16	1
Aldrin	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 19:16	1
alpha-BHC	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 19:16	1
alpha-Chlordane	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 19:16	1
beta-BHC	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 19:16	1
Chlordane	ND		25		ug/Kg		06/29/23 10:27	07/03/23 19:16	1
delta-BHC	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 19:16	1
Dieldrin	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 19:16	1
Endosulfan I	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 19:16	1
Endosulfan II	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 19:16	1
Endosulfan sulfate	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 19:16	1
Endrin	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 19:16	1
Endrin aldehyde	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 19:16	1
Endrin ketone	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 19:16	1
gamma-Chlordane	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 19:16	1
gamma-BHC	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 19:16	1
Heptachlor	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 19:16	1
Heptachlor epoxide	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 19:16	1
Methoxychlor	ND		4.9		ug/Kg		06/29/23 10:27	07/03/23 19:16	1
Toxaphene	ND		25		ug/Kg		06/29/23 10:27	07/03/23 19:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*56*		*38 - 148*	*06/29/23 10:27*	*07/03/23 19:16*	*1*
DCB Decachlorobiphenyl (Surr)	*71*		*37 - 151*	*06/29/23 10:27*	*07/03/23 19:16*	*1*

Client Sample ID: COMP 7
Date Collected: 06/21/23 00:00
Date Received: 06/24/23 10:05

Lab Sample ID: 570-142881-35
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		4.9		ug/Kg		06/28/23 13:08	06/30/23 15:15	1
4,4'-DDE	**17**		4.9		ug/Kg		06/28/23 13:08	06/30/23 15:15	1
4,4'-DDT	ND		4.9		ug/Kg		06/28/23 13:08	06/30/23 15:15	1
Aldrin	ND		4.9		ug/Kg		06/28/23 13:08	06/30/23 15:15	1
alpha-BHC	ND		4.9		ug/Kg		06/28/23 13:08	06/30/23 15:15	1
alpha-Chlordane	ND		4.9		ug/Kg		06/28/23 13:08	06/30/23 15:15	1
beta-BHC	ND		4.9		ug/Kg		06/28/23 13:08	06/30/23 15:15	1
Chlordane	ND		25		ug/Kg		06/28/23 13:08	06/30/23 15:15	1
delta-BHC	ND		4.9		ug/Kg		06/28/23 13:08	06/30/23 15:15	1
Dieldrin	ND		4.9		ug/Kg		06/28/23 13:08	06/30/23 15:15	1
Endosulfan I	ND		4.9		ug/Kg		06/28/23 13:08	06/30/23 15:15	1
Endosulfan II	ND		4.9		ug/Kg		06/28/23 13:08	06/30/23 15:15	1
Endosulfan sulfate	ND		4.9		ug/Kg		06/28/23 13:08	06/30/23 15:15	1
Endrin	ND		4.9		ug/Kg		06/28/23 13:08	06/30/23 15:15	1
Endrin aldehyde	ND		4.9		ug/Kg		06/28/23 13:08	06/30/23 15:15	1
Endrin ketone	ND		4.9		ug/Kg		06/28/23 13:08	06/30/23 15:15	1
gamma-Chlordane	ND		4.9		ug/Kg		06/28/23 13:08	06/30/23 15:15	1
gamma-BHC	ND		4.9		ug/Kg		06/28/23 13:08	06/30/23 15:15	1
Heptachlor	ND		4.9		ug/Kg		06/28/23 13:08	06/30/23 15:15	1

Method: SW846 8081A - Organochlorine Pesticides (GC) (Continued)

Client Sample ID: COMP 7
Date Collected: 06/21/23 00:00
Date Received: 06/24/23 10:05

Lab Sample ID: 570-142881-35
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	ND		4.9		ug/Kg		06/28/23 13:08	06/30/23 15:15	1
Methoxychlor	ND		4.9		ug/Kg		06/28/23 13:08	06/30/23 15:15	1
Toxaphene	ND		25		ug/Kg		06/28/23 13:08	06/30/23 15:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*64*		*38 - 148*	*06/28/23 13:08*	*06/30/23 15:15*	*1*
DCB Decachlorobiphenyl (Surr)	*77*		*37 - 151*	*06/28/23 13:08*	*06/30/23 15:15*	*1*

Method: SW846 6010B - Metals (ICP)

Client Sample ID: SB6 — **Lab Sample ID: 570-142881-6**
Date Collected: 06/21/23 10:23 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.03	mg/Kg		06/27/23 07:43	06/28/23 01:12	5

Client Sample ID: SB9 — **Lab Sample ID: 570-142881-9**
Date Collected: 06/21/23 10:33 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.03	mg/Kg		06/27/23 07:43	06/28/23 01:15	5

Client Sample ID: SB12 — **Lab Sample ID: 570-142881-12**
Date Collected: 06/21/23 10:40 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.06	mg/Kg		06/27/23 07:43	06/28/23 01:17	5

Client Sample ID: SB14 — **Lab Sample ID: 570-142881-14**
Date Collected: 06/21/23 11:07 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.06	mg/Kg		06/27/23 07:43	06/28/23 01:20	5

Client Sample ID: SB16 — **Lab Sample ID: 570-142881-16**
Date Collected: 06/21/23 11:12 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.03	mg/Kg		06/27/23 07:43	06/28/23 01:22	5

Client Sample ID: SB23 — **Lab Sample ID: 570-142881-23**
Date Collected: 06/21/23 11:28 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.06	mg/Kg		06/27/23 07:43	06/28/23 01:24	5

Client Sample ID: SB25 — **Lab Sample ID: 570-142881-25**
Date Collected: 06/21/23 11:32 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.03	mg/Kg		06/27/23 07:43	06/28/23 01:27	5

Client Sample ID: ADL1 — **Lab Sample ID: 570-142881-27**
Date Collected: 06/21/23 11:42 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**29.8**		2.02	mg/Kg		06/27/23 07:43	06/28/23 01:29	5

Client Sample ID: ADL2 — **Lab Sample ID: 570-142881-28**
Date Collected: 06/21/23 11:45 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**35.9**		2.04	mg/Kg		06/27/23 07:43	06/28/23 01:32	5

Method: Composite - Sample Compositing

Client Sample ID: SB1 — **Lab Sample ID: 570-142881-1**
Date Collected: 06/21/23 10:00 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB2 — **Lab Sample ID: 570-142881-2**
Date Collected: 06/21/23 10:07 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB3 — **Lab Sample ID: 570-142881-3**
Date Collected: 06/21/23 10:12 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB4 — **Lab Sample ID: 570-142881-4**
Date Collected: 06/21/23 10:18 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB5 — **Lab Sample ID: 570-142881-5**
Date Collected: 06/21/23 10:20 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB6 — **Lab Sample ID: 570-142881-6**
Date Collected: 06/21/23 10:23 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB7 — **Lab Sample ID: 570-142881-7**
Date Collected: 06/21/23 10:27 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB8 — **Lab Sample ID: 570-142881-8**
Date Collected: 06/21/23 10:29 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB9 — **Lab Sample ID: 570-142881-9**
Date Collected: 06/21/23 10:33 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Method: Composite - Sample Compositing

Client Sample ID: SB10 — **Lab Sample ID: 570-142881-10**
Date Collected: 06/21/23 10:35 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB11 — **Lab Sample ID: 570-142881-11**
Date Collected: 06/21/23 10:37 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB12 — **Lab Sample ID: 570-142881-12**
Date Collected: 06/21/23 10:40 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB13 — **Lab Sample ID: 570-142881-13**
Date Collected: 06/21/23 11:05 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB14 — **Lab Sample ID: 570-142881-14**
Date Collected: 06/21/23 11:07 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB15 — **Lab Sample ID: 570-142881-15**
Date Collected: 06/21/23 11:10 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB16 — **Lab Sample ID: 570-142881-16**
Date Collected: 06/21/23 11:12 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB17 — **Lab Sample ID: 570-142881-17**
Date Collected: 06/21/23 11:14 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB18 — **Lab Sample ID: 570-142881-18**
Date Collected: 06/21/23 11:16 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Method: Composite - Sample Compositing

Client Sample ID: SB19 — **Lab Sample ID: 570-142881-19**
Date Collected: 06/21/23 11:18 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB20 — **Lab Sample ID: 570-142881-20**
Date Collected: 06/21/23 11:20 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB21 — **Lab Sample ID: 570-142881-21**
Date Collected: 06/21/23 11:22 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB22 — **Lab Sample ID: 570-142881-22**
Date Collected: 06/21/23 11:25 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB23 — **Lab Sample ID: 570-142881-23**
Date Collected: 06/21/23 11:28 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB24 — **Lab Sample ID: 570-142881-24**
Date Collected: 06/21/23 11:30 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB25 — **Lab Sample ID: 570-142881-25**
Date Collected: 06/21/23 11:32 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Client Sample ID: SB26 — **Lab Sample ID: 570-142881-26**
Date Collected: 06/21/23 11:34 — **Matrix: Solid**
Date Received: 06/24/23 10:05

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Composited	yes				NONE			06/27/23 08:55	1

Surrogate Summary

Client: HARO Environmental
Project/Site: Selma

Job ID: 570-142881-1

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX2	DCB2
Lab Sample ID	Client Sample ID	(38-148)	(37-151)
570-142881-29	COMP 1	67	79
570-142881-30	COMP 2	80	92
570-142881-31	COMP 3	69	84
570-142881-32	COMP 4	74	90
570-142881-33	COMP 5	71	84
570-142881-34	COMP 6	56	71
570-142881-35	COMP 7	64	77
LCS 570-341680/2-A	Lab Control Sample	86	87
LCSD 570-341680/3-A	Lab Control Sample Dup	83	85
MB 570-341680/1-A	Method Blank	86	88

Surrogate Legend

TCX = Tetrachloro-m-xylene (Surr)
DCB = DCB Decachlorobiphenyl (Surr)

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX2	DCB1
Lab Sample ID	Client Sample ID	(38-148)	(37-151)
LCS 570-341371/2-A	Lab Control Sample	77	77
LCSD 570-341371/3-A	Lab Control Sample Dup	83	83
MB 570-341371/1-A	Method Blank	82	79

Surrogate Legend

TCX = Tetrachloro-m-xylene (Surr)
DCB = DCB Decachlorobiphenyl (Surr)

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 570-341371/1-A
Matrix: Solid
Analysis Batch: 341846

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 341371

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		06/28/23 13:08	06/30/23 13:44	1
4,4'-DDE	ND		5.0	ug/Kg		06/28/23 13:08	06/30/23 13:44	1
4,4'-DDT	ND		5.0	ug/Kg		06/28/23 13:08	06/30/23 13:44	1
Aldrin	ND		5.0	ug/Kg		06/28/23 13:08	06/30/23 13:44	1
alpha-BHC	ND		5.0	ug/Kg		06/28/23 13:08	06/30/23 13:44	1
alpha-Chlordane	ND		5.0	ug/Kg		06/28/23 13:08	06/30/23 13:44	1
beta-BHC	ND		5.0	ug/Kg		06/28/23 13:08	06/30/23 13:44	1
Chlordane	ND		25	ug/Kg		06/28/23 13:08	06/30/23 13:44	1
delta-BHC	ND		5.0	ug/Kg		06/28/23 13:08	06/30/23 13:44	1
Dieldrin	ND		5.0	ug/Kg		06/28/23 13:08	06/30/23 13:44	1
Endosulfan I	ND		5.0	ug/Kg		06/28/23 13:08	06/30/23 13:44	1
Endosulfan II	ND		5.0	ug/Kg		06/28/23 13:08	06/30/23 13:44	1
Endosulfan sulfate	ND		5.0	ug/Kg		06/28/23 13:08	06/30/23 13:44	1
Endrin	ND		5.0	ug/Kg		06/28/23 13:08	06/30/23 13:44	1
Endrin aldehyde	ND		5.0	ug/Kg		06/28/23 13:08	06/30/23 13:44	1
Endrin ketone	ND		5.0	ug/Kg		06/28/23 13:08	06/30/23 13:44	1
gamma-Chlordane	ND		5.0	ug/Kg		06/28/23 13:08	06/30/23 13:44	1
gamma-BHC	ND		5.0	ug/Kg		06/28/23 13:08	06/30/23 13:44	1
Heptachlor	ND		5.0	ug/Kg		06/28/23 13:08	06/30/23 13:44	1
Heptachlor epoxide	ND		5.0	ug/Kg		06/28/23 13:08	06/30/23 13:44	1
Methoxychlor	ND		5.0	ug/Kg		06/28/23 13:08	06/30/23 13:44	1
Toxaphene	ND		25	ug/Kg		06/28/23 13:08	06/30/23 13:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*82*		*38 - 148*	*06/28/23 13:08*	*06/30/23 13:44*	*1*
DCB Decachlorobiphenyl (Surr)	*79*		*37 - 151*	*06/28/23 13:08*	*06/30/23 13:44*	*1*

Lab Sample ID: LCS 570-341371/2-A
Matrix: Solid
Analysis Batch: 341846

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 341371

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	25.0	19.23		ug/Kg		77	54 - 154
4,4'-DDE	25.0	19.43		ug/Kg		78	51 - 149
4,4'-DDT	25.0	18.12		ug/Kg		72	39 - 152
Aldrin	25.0	19.98		ug/Kg		80	52 - 138
alpha-BHC	25.0	19.80		ug/Kg		79	51 - 140
alpha-Chlordane	25.0	19.80		ug/Kg		79	53 - 141
beta-BHC	25.0	17.83		ug/Kg		71	53 - 141
delta-BHC	25.0	16.92		ug/Kg		68	20 - 132
Dieldrin	25.0	19.12		ug/Kg		76	52 - 144
Endosulfan I	25.0	18.99		ug/Kg		76	49 - 139
Endosulfan II	25.0	19.38		ug/Kg		78	51 - 150
Endosulfan sulfate	25.0	17.68		ug/Kg		71	45 - 139
Endrin	25.0	19.56		ug/Kg		78	53 - 151
Endrin aldehyde	25.0	16.42		ug/Kg		66	31 - 146
gamma-Chlordane	25.0	19.96		ug/Kg		80	46 - 156
gamma-BHC	25.0	19.34		ug/Kg		77	53 - 141

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 570-341371/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 341846 — **Prep Batch: 341371**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Heptachlor	25.0	19.55		ug/Kg		78	52 - 144
Heptachlor epoxide	25.0	20.01		ug/Kg		80	54 - 141
Methoxychlor	25.0	19.23		ug/Kg		77	47 - 148

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene (Surr)	*77*		*38 - 148*
DCB Decachlorobiphenyl (Surr)	*77*		*37 - 151*

Lab Sample ID: LCSD 570-341371/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 341846 — **Prep Batch: 341371**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	25.0	19.63		ug/Kg		79	54 - 154	2	30
4,4'-DDE	25.0	20.45		ug/Kg		82	51 - 149	5	28
4,4'-DDT	25.0	18.15		ug/Kg		73	39 - 152	0	31
Aldrin	25.0	20.78		ug/Kg		83	52 - 138	4	30
alpha-BHC	25.0	20.03		ug/Kg		80	51 - 140	1	29
alpha-Chlordane	25.0	20.12		ug/Kg		80	53 - 141	2	28
beta-BHC	25.0	17.77		ug/Kg		71	53 - 141	0	29
delta-BHC	25.0	17.16		ug/Kg		69	20 - 132	1	40
Dieldrin	25.0	19.79		ug/Kg		79	52 - 144	3	28
Endosulfan I	25.0	19.25		ug/Kg		77	49 - 139	1	28
Endosulfan II	25.0	20.22		ug/Kg		81	51 - 150	4	29
Endosulfan sulfate	25.0	18.69		ug/Kg		75	45 - 139	6	30
Endrin	25.0	19.78		ug/Kg		79	53 - 151	1	29
Endrin aldehyde	25.0	16.61		ug/Kg		66	31 - 146	1	40
gamma-Chlordane	25.0	20.14		ug/Kg		81	46 - 156	1	39
gamma-BHC	25.0	19.78		ug/Kg		79	53 - 141	2	29
Heptachlor	25.0	19.64		ug/Kg		79	52 - 144	0	29
Heptachlor epoxide	25.0	20.49		ug/Kg		82	54 - 141	2	29
Methoxychlor	25.0	19.35		ug/Kg		77	47 - 148	1	29

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene (Surr)	*83*		*38 - 148*
DCB Decachlorobiphenyl (Surr)	*83*		*37 - 151*

Lab Sample ID: MB 570-341680/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 342609 — **Prep Batch: 341680**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		5.0	ug/Kg		06/29/23 10:27	07/03/23 16:59	1
4,4'-DDE	ND		5.0	ug/Kg		06/29/23 10:27	07/03/23 16:59	1
4,4'-DDT	ND		5.0	ug/Kg		06/29/23 10:27	07/03/23 16:59	1
Aldrin	ND		5.0	ug/Kg		06/29/23 10:27	07/03/23 16:59	1
alpha-BHC	ND		5.0	ug/Kg		06/29/23 10:27	07/03/23 16:59	1
alpha-Chlordane	ND		5.0	ug/Kg		06/29/23 10:27	07/03/23 16:59	1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 570-341680/1-A
Matrix: Solid
Analysis Batch: 342609

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 341680

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
beta-BHC	ND		5.0	ug/Kg		06/29/23 10:27	07/03/23 16:59	1
Chlordane	ND		25	ug/Kg		06/29/23 10:27	07/03/23 16:59	1
delta-BHC	ND		5.0	ug/Kg		06/29/23 10:27	07/03/23 16:59	1
Dieldrin	ND		5.0	ug/Kg		06/29/23 10:27	07/03/23 16:59	1
Endosulfan I	ND		5.0	ug/Kg		06/29/23 10:27	07/03/23 16:59	1
Endosulfan II	ND		5.0	ug/Kg		06/29/23 10:27	07/03/23 16:59	1
Endosulfan sulfate	ND		5.0	ug/Kg		06/29/23 10:27	07/03/23 16:59	1
Endrin	ND		5.0	ug/Kg		06/29/23 10:27	07/03/23 16:59	1
Endrin aldehyde	ND		5.0	ug/Kg		06/29/23 10:27	07/03/23 16:59	1
Endrin ketone	ND		5.0	ug/Kg		06/29/23 10:27	07/03/23 16:59	1
gamma-Chlordane	ND		5.0	ug/Kg		06/29/23 10:27	07/03/23 16:59	1
gamma-BHC	ND		5.0	ug/Kg		06/29/23 10:27	07/03/23 16:59	1
Heptachlor	ND		5.0	ug/Kg		06/29/23 10:27	07/03/23 16:59	1
Heptachlor epoxide	ND		5.0	ug/Kg		06/29/23 10:27	07/03/23 16:59	1
Methoxychlor	ND		5.0	ug/Kg		06/29/23 10:27	07/03/23 16:59	1
Toxaphene	ND		25	ug/Kg		06/29/23 10:27	07/03/23 16:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*86*		*38 - 148*	*06/29/23 10:27*	*07/03/23 16:59*	*1*
DCB Decachlorobiphenyl (Surr)	*88*		*37 - 151*	*06/29/23 10:27*	*07/03/23 16:59*	*1*

Lab Sample ID: LCS 570-341680/2-A
Matrix: Solid
Analysis Batch: 342609

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 341680

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	25.0	20.05		ug/Kg		80	54 - 154
4,4'-DDE	25.0	19.53		ug/Kg		78	51 - 149
4,4'-DDT	25.0	19.55		ug/Kg		78	39 - 152
Aldrin	25.0	19.50		ug/Kg		78	52 - 138
alpha-BHC	25.0	19.92		ug/Kg		80	51 - 140
alpha-Chlordane	25.0	19.79		ug/Kg		79	53 - 141
beta-BHC	25.0	18.41		ug/Kg		74	53 - 141
delta-BHC	25.0	17.64		ug/Kg		71	20 - 132
Dieldrin	25.0	19.72		ug/Kg		79	52 - 144
Endosulfan I	25.0	19.26		ug/Kg		77	49 - 139
Endosulfan II	25.0	20.61		ug/Kg		82	51 - 150
Endosulfan sulfate	25.0	19.96		ug/Kg		80	45 - 139
Endrin	25.0	19.87		ug/Kg		79	53 - 151
Endrin aldehyde	25.0	18.93		ug/Kg		76	31 - 146
gamma-Chlordane	25.0	20.54		ug/Kg		82	46 - 156
gamma-BHC	25.0	19.74		ug/Kg		79	53 - 141
Heptachlor	25.0	19.86		ug/Kg		79	52 - 144
Heptachlor epoxide	25.0	20.00		ug/Kg		80	54 - 141
Methoxychlor	25.0	19.73		ug/Kg		79	47 - 148

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene (Surr)	*86*		*38 - 148*

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 570-341680/2-A
Matrix: Solid
Analysis Batch: 342609

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 341680

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	87		37 - 151

Lab Sample ID: LCSD 570-341680/3-A
Matrix: Solid
Analysis Batch: 342609

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 341680

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	25.0	19.93		ug/Kg		80	54 - 154	1	30
4,4'-DDE	25.0	18.80		ug/Kg		75	51 - 149	4	28
4,4'-DDT	25.0	19.35		ug/Kg		77	39 - 152	1	31
Aldrin	25.0	18.94		ug/Kg		76	52 - 138	3	30
alpha-BHC	25.0	19.33		ug/Kg		77	51 - 140	3	29
alpha-Chlordane	25.0	19.22		ug/Kg		77	53 - 141	3	28
beta-BHC	25.0	18.09		ug/Kg		72	53 - 141	2	29
delta-BHC	25.0	17.13		ug/Kg		69	20 - 132	3	40
Dieldrin	25.0	19.19		ug/Kg		77	52 - 144	3	28
Endosulfan I	25.0	19.03		ug/Kg		76	49 - 139	1	28
Endosulfan II	25.0	20.11		ug/Kg		80	51 - 150	2	29
Endosulfan sulfate	25.0	19.29		ug/Kg		77	45 - 139	3	30
Endrin	25.0	19.53		ug/Kg		78	53 - 151	2	29
Endrin aldehyde	25.0	17.94		ug/Kg		72	31 - 146	5	40
gamma-Chlordane	25.0	19.59		ug/Kg		78	46 - 156	5	39
gamma-BHC	25.0	19.30		ug/Kg		77	53 - 141	2	29
Heptachlor	25.0	19.60		ug/Kg		78	52 - 144	1	29
Heptachlor epoxide	25.0	19.47		ug/Kg		78	54 - 141	3	29
Methoxychlor	25.0	19.85		ug/Kg		79	47 - 148	1	29

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene (Surr)	83		38 - 148
DCB Decachlorobiphenyl (Surr)	85		37 - 151

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 570-340784/1-A ^5
Matrix: Solid
Analysis Batch: 341304

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 340784

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.00		mg/Kg		06/27/23 07:43	06/28/23 00:48	5
Lead	ND		2.00		mg/Kg		06/27/23 07:43	06/28/23 00:48	5

Lab Sample ID: LCS 570-340784/2-A ^5
Matrix: Solid
Analysis Batch: 341304

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 340784

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic	50.5	45.90		mg/Kg		91	80 - 120		
Lead	50.5	49.05		mg/Kg		97	80 - 120		

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 570-340784/3-A ^5
Matrix: Solid
Analysis Batch: 341304

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 340784

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic			50.3	45.05		mg/Kg		90	80 - 120	2	20
Lead			50.3	47.69		mg/Kg		95	80 - 120	3	20

QC Association Summary

Client: HARO Environmental
Project/Site: Selma

Job ID: 570-142881-1

GC Semi VOA

Prep Batch: 341371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142881-35	COMP 7	Total/NA	Solid	3546	
MB 570-341371/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-341371/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-341371/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Prep Batch: 341680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142881-29	COMP 1	Total/NA	Solid	3546	
570-142881-30	COMP 2	Total/NA	Solid	3546	
570-142881-31	COMP 3	Total/NA	Solid	3546	
570-142881-32	COMP 4	Total/NA	Solid	3546	
570-142881-33	COMP 5	Total/NA	Solid	3546	
570-142881-34	COMP 6	Total/NA	Solid	3546	
MB 570-341680/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-341680/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-341680/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 341846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142881-35	COMP 7	Total/NA	Solid	8081A	341371
MB 570-341371/1-A	Method Blank	Total/NA	Solid	8081A	341371
LCS 570-341371/2-A	Lab Control Sample	Total/NA	Solid	8081A	341371
LCSD 570-341371/3-A	Lab Control Sample Dup	Total/NA	Solid	8081A	341371

Analysis Batch: 342609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142881-29	COMP 1	Total/NA	Solid	8081A	341680
570-142881-30	COMP 2	Total/NA	Solid	8081A	341680
570-142881-31	COMP 3	Total/NA	Solid	8081A	341680
570-142881-32	COMP 4	Total/NA	Solid	8081A	341680
570-142881-33	COMP 5	Total/NA	Solid	8081A	341680
570-142881-34	COMP 6	Total/NA	Solid	8081A	341680
MB 570-341680/1-A	Method Blank	Total/NA	Solid	8081A	341680
LCS 570-341680/2-A	Lab Control Sample	Total/NA	Solid	8081A	341680
LCSD 570-341680/3-A	Lab Control Sample Dup	Total/NA	Solid	8081A	341680

Metals

Prep Batch: 340784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142881-6	SB6	Total/NA	Solid	3050B	
570-142881-9	SB9	Total/NA	Solid	3050B	
570-142881-12	SB12	Total/NA	Solid	3050B	
570-142881-14	SB14	Total/NA	Solid	3050B	
570-142881-16	SB16	Total/NA	Solid	3050B	
570-142881-23	SB23	Total/NA	Solid	3050B	
570-142881-25	SB25	Total/NA	Solid	3050B	
570-142881-27	ADL1	Total/NA	Solid	3050B	
570-142881-28	ADL2	Total/NA	Solid	3050B	
MB 570-340784/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-340784/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	

Metals (Continued)

Prep Batch: 340784 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 570-340784/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	

Analysis Batch: 341304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142881-6	SB6	Total/NA	Solid	6010B	340784
570-142881-9	SB9	Total/NA	Solid	6010B	340784
570-142881-12	SB12	Total/NA	Solid	6010B	340784
570-142881-14	SB14	Total/NA	Solid	6010B	340784
570-142881-16	SB16	Total/NA	Solid	6010B	340784
570-142881-23	SB23	Total/NA	Solid	6010B	340784
570-142881-25	SB25	Total/NA	Solid	6010B	340784
570-142881-27	ADL1	Total/NA	Solid	6010B	340784
570-142881-28	ADL2	Total/NA	Solid	6010B	340784
MB 570-340784/1-A ^5	Method Blank	Total/NA	Solid	6010B	340784
LCS 570-340784/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	340784
LCSD 570-340784/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	340784

Organic Prep

Analysis Batch: 340823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142881-1	SB1	Total/NA	Solid	Composite	
570-142881-2	SB2	Total/NA	Solid	Composite	
570-142881-3	SB3	Total/NA	Solid	Composite	
570-142881-4	SB4	Total/NA	Solid	Composite	
570-142881-5	SB5	Total/NA	Solid	Composite	
570-142881-6	SB6	Total/NA	Solid	Composite	
570-142881-7	SB7	Total/NA	Solid	Composite	
570-142881-8	SB8	Total/NA	Solid	Composite	
570-142881-9	SB9	Total/NA	Solid	Composite	
570-142881-10	SB10	Total/NA	Solid	Composite	
570-142881-11	SB11	Total/NA	Solid	Composite	
570-142881-12	SB12	Total/NA	Solid	Composite	
570-142881-13	SB13	Total/NA	Solid	Composite	
570-142881-14	SB14	Total/NA	Solid	Composite	
570-142881-15	SB15	Total/NA	Solid	Composite	
570-142881-16	SB16	Total/NA	Solid	Composite	
570-142881-17	SB17	Total/NA	Solid	Composite	
570-142881-18	SB18	Total/NA	Solid	Composite	
570-142881-19	SB19	Total/NA	Solid	Composite	
570-142881-20	SB20	Total/NA	Solid	Composite	
570-142881-21	SB21	Total/NA	Solid	Composite	
570-142881-22	SB22	Total/NA	Solid	Composite	
570-142881-23	SB23	Total/NA	Solid	Composite	
570-142881-24	SB24	Total/NA	Solid	Composite	
570-142881-25	SB25	Total/NA	Solid	Composite	
570-142881-26	SB26	Total/NA	Solid	Composite	

Lab Chronicle

Client: HARO Environmental
Project/Site: Selma

Job ID: 570-142881-1

Client Sample ID: SB1
Lab Sample ID: 570-142881-1
Date Collected: 06/21/23 10:00
Matrix: Solid
Date Received: 06/24/23 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: SB2
Lab Sample ID: 570-142881-2
Date Collected: 06/21/23 10:07
Matrix: Solid
Date Received: 06/24/23 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: SB3
Lab Sample ID: 570-142881-3
Date Collected: 06/21/23 10:12
Matrix: Solid
Date Received: 06/24/23 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: SB4
Lab Sample ID: 570-142881-4
Date Collected: 06/21/23 10:18
Matrix: Solid
Date Received: 06/24/23 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: SB5
Lab Sample ID: 570-142881-5
Date Collected: 06/21/23 10:20
Matrix: Solid
Date Received: 06/24/23 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: SB6
Lab Sample ID: 570-142881-6
Date Collected: 06/21/23 10:23
Matrix: Solid
Date Received: 06/24/23 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.98 g	50 mL	340784	06/27/23 07:43	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			341304	06/28/23 01:12	VZ0K	EET CAL 4
	Instrument ID:	ICP11								
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Lab Chronicle

Client: HARO Environmental
Project/Site: Selma

Job ID: 570-142881-1

Client Sample ID: SB7 — Lab Sample ID: 570-142881-7

Date Collected: 06/21/23 10:27
Date Received: 06/24/23 10:05
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: SB8 — Lab Sample ID: 570-142881-8

Date Collected: 06/21/23 10:29
Date Received: 06/24/23 10:05
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: SB9 — Lab Sample ID: 570-142881-9

Date Collected: 06/21/23 10:33
Date Received: 06/24/23 10:05
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.98 g	50 mL	340784	06/27/23 07:43	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			341304	06/28/23 01:15	VZ0K	EET CAL 4
	Instrument ID:	ICP11								
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: SB10 — Lab Sample ID: 570-142881-10

Date Collected: 06/21/23 10:35
Date Received: 06/24/23 10:05
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: SB11 — Lab Sample ID: 570-142881-11

Date Collected: 06/21/23 10:37
Date Received: 06/24/23 10:05
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: SB12 — Lab Sample ID: 570-142881-12

Date Collected: 06/21/23 10:40
Date Received: 06/24/23 10:05
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.96 g	50 mL	340784	06/27/23 07:43	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			341304	06/28/23 01:17	VZ0K	EET CAL 4
	Instrument ID:	ICP11								

Lab Chronicle

Client: HARO Environmental
Project/Site: Selma

Job ID: 570-142881-1

Client Sample ID: SB12 — Lab Sample ID: 570-142881-12

Date Collected: 06/21/23 10:40
Date Received: 06/24/23 10:05
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4

Client Sample ID: SB13 — Lab Sample ID: 570-142881-13

Date Collected: 06/21/23 11:05
Date Received: 06/24/23 10:05
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: SB14 — Lab Sample ID: 570-142881-14

Date Collected: 06/21/23 11:07
Date Received: 06/24/23 10:05
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.96 g	50 mL	340784	06/27/23 07:43	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			341304	06/28/23 01:20	VZ0K	EET CAL 4
	Instrument ID:	ICP11								
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: SB15 — Lab Sample ID: 570-142881-15

Date Collected: 06/21/23 11:10
Date Received: 06/24/23 10:05
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: SB16 — Lab Sample ID: 570-142881-16

Date Collected: 06/21/23 11:12
Date Received: 06/24/23 10:05
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.98 g	50 mL	340784	06/27/23 07:43	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			341304	06/28/23 01:22	VZ0K	EET CAL 4
	Instrument ID:	ICP11								
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Lab Chronicle

Client: HARO Environmental
Project/Site: Selma

Job ID: 570-142881-1

Client Sample ID: SB17
Date Collected: 06/21/23 11:14
Date Received: 06/24/23 10:05

Lab Sample ID: 570-142881-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: SB18
Date Collected: 06/21/23 11:16
Date Received: 06/24/23 10:05

Lab Sample ID: 570-142881-18
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: SB19
Date Collected: 06/21/23 11:18
Date Received: 06/24/23 10:05

Lab Sample ID: 570-142881-19
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: SB20
Date Collected: 06/21/23 11:20
Date Received: 06/24/23 10:05

Lab Sample ID: 570-142881-20
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: SB21
Date Collected: 06/21/23 11:22
Date Received: 06/24/23 10:05

Lab Sample ID: 570-142881-21
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: SB22
Date Collected: 06/21/23 11:25
Date Received: 06/24/23 10:05

Lab Sample ID: 570-142881-22
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Lab Chronicle

Client: HARO Environmental
Project/Site: Selma

Job ID: 570-142881-1

Client Sample ID: SB23
Date Collected: 06/21/23 11:28
Date Received: 06/24/23 10:05

Lab Sample ID: 570-142881-23
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.96 g	50 mL	340784	06/27/23 07:43	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			341304	06/28/23 01:24	VZ0K	EET CAL 4
	Instrument ID:	ICP11								
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: SB24
Date Collected: 06/21/23 11:30
Date Received: 06/24/23 10:05

Lab Sample ID: 570-142881-24
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: SB25
Date Collected: 06/21/23 11:32
Date Received: 06/24/23 10:05

Lab Sample ID: 570-142881-25
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.98 g	50 mL	340784	06/27/23 07:43	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			341304	06/28/23 01:27	VZ0K	EET CAL 4
	Instrument ID:	ICP11								
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: SB26
Date Collected: 06/21/23 11:34
Date Received: 06/24/23 10:05

Lab Sample ID: 570-142881-26
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Composite		1			340823	06/27/23 08:55	KZX6	EET CAL 4
	Instrument ID:	NOEQUIP								

Client Sample ID: ADL1
Date Collected: 06/21/23 11:42
Date Received: 06/24/23 10:05

Lab Sample ID: 570-142881-27
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.98 g	50 mL	340784	06/27/23 07:43	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			341304	06/28/23 01:29	VZ0K	EET CAL 4
	Instrument ID:	ICP11								

Lab Chronicle

Client: HARO Environmental
Project/Site: Selma

Job ID: 570-142881-1

Client Sample ID: ADL2

Lab Sample ID: 570-142881-28
Date Collected: 06/21/23 11:45
Matrix: Solid
Date Received: 06/24/23 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.96 g	50 mL	340784	06/27/23 07:43	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			341304	06/28/23 01:32	VZ0K	EET CAL 4
	Instrument ID:	ICP11								

Client Sample ID: COMP 1

Lab Sample ID: 570-142881-29
Date Collected: 06/21/23 00:00
Matrix: Solid
Date Received: 06/24/23 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.29 g	10 mL	341680	06/29/23 10:27	USUL	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	342609	07/03/23 18:00	N5Y3	EET CAL 4
	Instrument ID:	GC54A								

Client Sample ID: COMP 2

Lab Sample ID: 570-142881-30
Date Collected: 06/21/23 00:00
Matrix: Solid
Date Received: 06/24/23 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.35 g	10 mL	341680	06/29/23 10:27	USUL	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	342609	07/03/23 18:15	N5Y3	EET CAL 4
	Instrument ID:	GC54A								

Client Sample ID: COMP 3

Lab Sample ID: 570-142881-31
Date Collected: 06/21/23 00:00
Matrix: Solid
Date Received: 06/24/23 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.31 g	10 mL	341680	06/29/23 10:27	USUL	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	342609	07/03/23 18:30	N5Y3	EET CAL 4
	Instrument ID:	GC54A								

Client Sample ID: COMP 4

Lab Sample ID: 570-142881-32
Date Collected: 06/21/23 00:00
Matrix: Solid
Date Received: 06/24/23 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.27 g	10 mL	341680	06/29/23 10:27	USUL	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	342609	07/03/23 18:45	N5Y3	EET CAL 4
	Instrument ID:	GC54A								

Lab Chronicle

Client: HARO Environmental
Project/Site: Selma

Job ID: 570-142881-1

Client Sample ID: COMP 5

Lab Sample ID: 570-142881-33
Date Collected: 06/21/23 00:00
Matrix: Solid
Date Received: 06/24/23 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.22 g	10 mL	341680	06/29/23 10:27	USUL	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	342609	07/03/23 19:00	N5Y3	EET CAL 4
	Instrument ID: GC54A									

Client Sample ID: COMP 6

Lab Sample ID: 570-142881-34
Date Collected: 06/21/23 00:00
Matrix: Solid
Date Received: 06/24/23 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.26 g	10 mL	341680	06/29/23 10:27	USUL	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	342609	07/03/23 19:16	N5Y3	EET CAL 4
	Instrument ID: GC54A									

Client Sample ID: COMP 7

Lab Sample ID: 570-142881-35
Date Collected: 06/21/23 00:00
Matrix: Solid
Date Received: 06/24/23 10:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.27 g	10 mL	341371	06/28/23 13:08	USUL	EET CAL 4
Total/NA	Analysis	8081A		1	1 mL	1 mL	341846	06/30/23 15:15	N5Y3	EET CAL 4
	Instrument ID: GC54A									

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: HARO Environmental
Project/Site: Selma

Job ID: 570-142881-1

Laboratory: Eurofins Calscience

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Composite		Solid	Composited

Method Summary

Client: HARO Environmental
Project/Site: Selma

Job ID: 570-142881-1

Method	Method Description	Protocol	Laboratory
8081A	Organochlorine Pesticides (GC)	SW846	EET CAL 4
6010B	Metals (ICP)	SW846	EET CAL 4
Composite	Sample Compositing	None	EET CAL 4
3050B	Preparation, Metals	SW846	EET CAL 4
3546	Microwave Extraction	SW846	EET CAL 4

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Sample Summary

Client: HARO Environmental
Project/Site: Selma

Job ID: 570-142881-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-142881-1	SB1	Solid	06/21/23 10:00	06/24/23 10:05
570-142881-2	SB2	Solid	06/21/23 10:07	06/24/23 10:05
570-142881-3	SB3	Solid	06/21/23 10:12	06/24/23 10:05
570-142881-4	SB4	Solid	06/21/23 10:18	06/24/23 10:05
570-142881-5	SB5	Solid	06/21/23 10:20	06/24/23 10:05
570-142881-6	SB6	Solid	06/21/23 10:23	06/24/23 10:05
570-142881-7	SB7	Solid	06/21/23 10:27	06/24/23 10:05
570-142881-8	SB8	Solid	06/21/23 10:29	06/24/23 10:05
570-142881-9	SB9	Solid	06/21/23 10:33	06/24/23 10:05
570-142881-10	SB10	Solid	06/21/23 10:35	06/24/23 10:05
570-142881-11	SB11	Solid	06/21/23 10:37	06/24/23 10:05
570-142881-12	SB12	Solid	06/21/23 10:40	06/24/23 10:05
570-142881-13	SB13	Solid	06/21/23 11:05	06/24/23 10:05
570-142881-14	SB14	Solid	06/21/23 11:07	06/24/23 10:05
570-142881-15	SB15	Solid	06/21/23 11:10	06/24/23 10:05
570-142881-16	SB16	Solid	06/21/23 11:12	06/24/23 10:05
570-142881-17	SB17	Solid	06/21/23 11:14	06/24/23 10:05
570-142881-18	SB18	Solid	06/21/23 11:16	06/24/23 10:05
570-142881-19	SB19	Solid	06/21/23 11:18	06/24/23 10:05
570-142881-20	SB20	Solid	06/21/23 11:20	06/24/23 10:05
570-142881-21	SB21	Solid	06/21/23 11:22	06/24/23 10:05
570-142881-22	SB22	Solid	06/21/23 11:25	06/24/23 10:05
570-142881-23	SB23	Solid	06/21/23 11:28	06/24/23 10:05
570-142881-24	SB24	Solid	06/21/23 11:30	06/24/23 10:05
570-142881-25	SB25	Solid	06/21/23 11:32	06/24/23 10:05
570-142881-26	SB26	Solid	06/21/23 11:34	06/24/23 10:05
570-142881-27	ADL1	Solid	06/21/23 11:42	06/24/23 10:05
570-142881-28	ADL2	Solid	06/21/23 11:45	06/24/23 10:05
570-142881-29	COMP 1	Solid	06/21/23 00:00	06/24/23 10:05
570-142881-30	COMP 2	Solid	06/21/23 00:00	06/24/23 10:05
570-142881-31	COMP 3	Solid	06/21/23 00:00	06/24/23 10:05
570-142881-32	COMP 4	Solid	06/21/23 00:00	06/24/23 10:05
570-142881-33	COMP 5	Solid	06/21/23 00:00	06/24/23 10:05
570-142881-34	COMP 6	Solid	06/21/23 00:00	06/24/23 10:05
570-142881-35	COMP 7	Solid	06/21/23 00:00	06/24/23 10:05

Loc: 570
142881

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CHAIN OF CUSTODY RI

WO # / LAB USE ONLY

DATE: 6/21/2023
PAGE: 1 OF 3

LABORATORY CLIENT: Haro Environmental, Inc.
ADDRESS: PO Box 7002, Los Osos, CA 93412
CITY: STATE: ZIP:
TEL: 805.204.4483
E-MAIL: elliot.haro@haroenvironmental.com

CLIENT PROJECT NAME / NUMBER: Selma
P.O. NO.:
PROJECT CONTACT: Elliot Haro
SAMPLER(S): (PRINT) Jessica Manley

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF
GLOBAL ID:
LOG CODE:

SPECIAL INSTRUCTIONS: Please composite the following and test for pesticides:
• SB1 + SB2 + SB3 + SB4 = comp 1
• SB5 + SB6 + SB7 + SB8 = comp 2 see pg. 2...

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ___	BTEX / MTBE ☐ 8260 ☐ ___	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6		Arsenic		
1	SB1	6/21/23	10:00	SL	1	X																				
2	SB2		10:07																							
3	SB3		10:12																							
4	SB4		10:18																							
5	SB5		10:20																							
6	SB6		10:23																					X		
7	SB7		10:27																							
8	SB8		10:29																							
9	SB9		10:33																					X		
10	SB10		10:35																							

570-142881 Chain of Custody

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Jessica Manley		6/22/23	10:00
GLS		6/24/23	10:05

15.6 / 15.8 SL6

06/02/14 Revision

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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY

DATE: 6/21/2023

PAGE: 2 OF 3

LABORATORY CLIENT: Haro Environmental, Inc.

ADDRESS: PO Box 7002, Los Osos, CA 93412

CITY: STATE: ZIP:

TEL: 805.204.4483

E-MAIL: elliot.haro@haroenvironmental.com

CLIENT PROJECT NAME / NUMBER: Selma

P.O. NO.:

PROJECT CONTACT: Elliot Haro

SAMPLER(S): (PRINT) Jessica Manley

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF

GLOBAL ID:

LOG CODE:

SPECIAL INSTRUCTIONS:

- SB9 + SB10 + SB11 + SB12 = Comp 3
- SB13 + SB14 + SB15 + SB16 = Comp 4
- SB17 + SB18 + SB19 + SB20 = Comp 5

see pg.3

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ___	BTEX / MTBE ☐ 8260 ☐ ___	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6		Arsenic		
11	SB11	6/21/23	10:37	SL	1	X																				
12	SB12		10:40																					X		
13	SB13		11:05																							
14	SB14		11:07																					X		
15	SB15		11:10																							
16	SB16		11:12																					X		
17	SB17		11:14																							
18	SB18		11:16																							
19	SB19		11:18																							
20	SB 20		11:20																							

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Jessica Manley		6/22/23	10:00
GLS		6/24/23	10:05

06/02/14 Revision

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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY

DATE: 6/21/2023

PAGE: 3 OF 3

LABORATORY CLIENT:

ADDRESS:

CITY: STATE: ZIP:

TEL: E-MAIL:

CLIENT PROJECT NAME / NUMBER: Selma

P.O. NO.:

PROJECT CONTACT: Elliot Haro

SAMPLER(S): (PRINT) Jessica Manley

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:
• SB21 + SB22 + SB23 = comp 6
• SB24 + SB25 + SB26 = comp 7

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ___	BTEX / MTBE ☐ 8260 ☐ ___	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	Lead	Arsenic		
21	SB21	6/21/23	11:22	SL	1	X																				
22	SB22	↓	11:25	↓	↓	↓																				
23	SB23	↓	11:28	↓	↓	↓																		+		
24	SB24	↓	11:30	↓	↓	↓																				
25	SB25	↓	11:32	↓	↓	↓																		+		
26	SB26	↓	11:34	↓	↓	↓																				
27	ADL1	↓	11:42	↓	↓	↓																	X			
28	ADL 2	↓	11:45	↓	↓	↓																	+			

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Jessica Manley		6/22/23	10:00
GLS		6/24/23	10:05

06/02/14 Revision

GLS.

800-322-5555
www.gls-us.com

Ship From
EUROFINS CALSCIENCE, INC
SAMPLE CONTROL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

Tracking #: 559645486

SDS

Ship To
EUROFINS CALSCIENCE, INC.
SAMPLE CONTROL
2841 DOW AVE.
TUSTIN, CA 92780

TUSTIN

S11422B

COD: $0.00
Weight: 0 lb(s)
Reference:

Delivery Instructions:

Signature Type: STANDARD

88692015

ORC CA927-MB0

Print Date: 6/23/2023 12:26 PM

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.
Step 1: Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer.
Step 2: Fold this page in half.
Step 3: Securely attach this label to your package and do not cover the barcode.

TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all of the General Logistics Systems US, Inc. (GLS) service terms & conditions including, but not limited to; limits of liability, declared value conditions, and claim procedures which are available on our website at www.gls-us.com.

570-142881 Waybill

Login Sample Receipt Checklist

Client: HARO Environmental

Job Number: 570-142881-1

Login Number: 142881
List Number: 1
Creator: Yu, Tiffany

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Attachment H
CNDDB Search Results

Element_Type	Scientific_Name	Common_Name	Element_Code	Federal_Status	State_Status	CDFW_Status	CA_Rare_Plant_Rank	Quad_Code	Quad_Name	Data_Status	Taxonomic_Sc
Animals - Amphibians	Ambystoma californiense pop. 1	California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	WL	-	3611966	MALAGA	Mapped	Animals - Amphibians - Ambystomatida - Ambystoma californiense pop. 1
Animals - Amphibians	Ambystoma californiense pop. 1	California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	WL	-	3611967	FRESNO SOUTH	Mapped and Unprocessed	Animals - Amphibians - Ambystomatida - Ambystoma californiense pop. 1
Animals - Amphibians	Ambystoma californiense pop. 1	California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	WL	-	3611945	BURRIS PARK	Mapped	Animals - Amphibians - Ambystomatida - Ambystoma californiense pop. 1
Animals - Amphibians	Spea hammondii	western spadefoot	AAABF02020	None	None	SSC	-	3611945	BURRIS PARK	Mapped	Animals - Amphibians - Scaphiopodida - Spea hammondii
Animals - Birds	Buteo swainsoni	Swainsons hawk	ABNKC19070	None	Threatened	-	-	3611945	BURRIS PARK	Unprocessed	Animals - Birds Accipitridae - Buteo swainsor
Animals - Birds	Buteo swainsoni	Swainsons hawk	ABNKC19070	None	Threatened	-	-	3611957	CARUTHERS	Mapped and Unprocessed	Animals - Birds Accipitridae - Buteo swainsor
Animals - Birds	Buteo swainsoni	Swainsons hawk	ABNKC19070	None	Threatened	-	-	3611946	LATON	Unprocessed	Animals - Birds Accipitridae - Buteo swainsor
Animals - Birds	Buteo swainsoni	Swainsons hawk	ABNKC19070	None	Threatened	-	-	3611955	SELMA	Mapped and Unprocessed	Animals - Birds Accipitridae - Buteo swainsor
Animals - Birds	Buteo swainsoni	Swainsons hawk	ABNKC19070	None	Threatened	-	-	3611956	CONEJO	Mapped and Unprocessed	Animals - Birds Accipitridae - Buteo swainsor
Animals - Birds	Buteo swainsoni	Swainsons hawk	ABNKC19070	None	Threatened	-	-	3611967	FRESNO SOUTH	Mapped and Unprocessed	Animals - Birds Accipitridae - Buteo swainsor
Animals - Birds	Buteo swainsoni	Swainsons hawk	ABNKC19070	None	Threatened	-	-	3611966	MALAGA	Mapped and Unprocessed	Animals - Birds Accipitridae - Buteo swainsor
Animals - Birds	Buteo swainsoni	Swainsons hawk	ABNKC19070	None	Threatened	-	-	3611947	RIVERDALE	Mapped and Unprocessed	Animals - Birds Accipitridae - Buteo swainsor
Animals - Birds	Pica nuttalli	yellow-billed magpie	ABPAV09020	None	None	-	-	3611956	CONEJO	Unprocessed	Animals - Birds Corvidae - Pica nuttalli
Animals - Birds	Coccyzus americanus occidentalis	western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	-	-	3611956	CONEJO	Mapped	Animals - Birds Cuculidae - Coccyzus americanus occidentalis

Animals - Birds	Coccyzus americanus occidentalis	western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	-	-	3611955	SELMA	Mapped	Animals - Birds Cuculidae - Coccyzus americanus occidentalis
Animals - Birds	Coccyzus americanus occidentalis	western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	-	-	3611966	MALAGA	Mapped	Animals - Birds Cuculidae - Coccyzus americanus occidentalis
Animals - Birds	Coccyzus americanus occidentalis	western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	-	-	3611965	SANGER	Mapped	Animals - Birds Cuculidae - Coccyzus americanus occidentalis
Animals - Birds	Xanthocephalus xanthocephalus	yellow-headed blackbird	ABPBXB3010	None	None	SSC	-	3611966	MALAGA	Unprocessed	Animals - Birds Icteridae - Xanthocephalu xanthocephalus
Animals - Birds	Xanthocephalus xanthocephalus	yellow-headed blackbird	ABPBXB3010	None	None	SSC	-	3611967	FRESNO SOUTH	Unprocessed	Animals - Birds Icteridae - Xanthocephalu xanthocephalus
Animals - Birds	Athene cunicularia	burrowing owl	ABNSB10010	None	None	SSC	-	3611967	FRESNO SOUTH	Unprocessed	Animals - Birds Strigidae - Athene cunicularia
Animals - Birds	Athene cunicularia	burrowing owl	ABNSB10010	None	None	SSC	-	3611955	SELMA	Unprocessed	Animals - Birds Strigidae - Athene cunicularia
Animals - Birds	Athene cunicularia	burrowing owl	ABNSB10010	None	None	SSC	-	3611956	CONEJO	Unprocessed	Animals - Birds Strigidae - Athene cunicularia
Animals - Birds	Athene cunicularia	burrowing owl	ABNSB10010	None	None	SSC	-	3611945	BURRIS PARK	Mapped	Animals - Birds Strigidae - Athene cunicularia
Animals - Birds	Athene cunicularia	burrowing owl	ABNSB10010	None	None	SSC	-	3611947	RIVERDALE	Mapped and Unprocessed	Animals - Birds Strigidae - Athene cunicularia
Animals - Crustaceans	Branchinecta lynchi	vernal pool fairy shrimp	ICBRA03030	Threatened	None	-	-	3611945	BURRIS PARK	Mapped	Animals - Crustaceans - Branchinectida Branchinecta lynchi
Animals - Crustaceans	Linderiella occidentalis	California linderiella	ICBRA06010	None	None	-	-	3611945	BURRIS PARK	Mapped	Animals - Crustaceans - Chirocephalida - Linderiella occidentalis
Animals - Crustaceans	Lepidurus packardi	vernal pool tadpole shrimp	ICBRA10010	Endangered	None	-	-	3611945	BURRIS PARK	Mapped	Animals - Crustaceans - Triopsidae - Lepidurus packardi

Animals - Insects	Bombus crotchii	Crotch bumble bee	IIHYM24480	None	Candidate Endangered	-	-	3611956	CONEJO	Mapped	Animals - Insec - Apidae - Bombus crotch
Animals - Insects	Bombus crotchii	Crotch bumble bee	IIHYM24480	None	Candidate Endangered	-	-	3611967	FRESNO SOUTH	Mapped	Animals - Insec - Apidae - Bombus crotch
Animals - Insects	Bombus crotchii	Crotch bumble bee	IIHYM24480	None	Candidate Endangered	-	-	3611966	MALAGA	Mapped	Animals - Insec - Apidae - Bombus crotch
Animals - Insects	Bombus crotchii	Crotch bumble bee	IIHYM24480	None	Candidate Endangered	-	-	3611955	SELMA	Mapped	Animals - Insec - Apidae - Bombus crotch
Animals - Insects	Bombus pensylvanicus	American bumble bee	IIHYM24260	None	None	-	-	3611965	SANGER	Unprocessed	Animals - Insec - Apidae - Bombus pensylvanicus
Animals - Insects	Bombus pensylvanicus	American bumble bee	IIHYM24260	None	None	-	-	3611966	MALAGA	Mapped	Animals - Insec - Apidae - Bombus pensylvanicus
Animals - Insects	Bombus pensylvanicus	American bumble bee	IIHYM24260	None	None	-	-	3611955	SELMA	Mapped	Animals - Insec - Apidae - Bombus pensylvanicus
Animals - Insects	Bombus pensylvanicus	American bumble bee	IIHYM24260	None	None	-	-	3611967	FRESNO SOUTH	Mapped and Unprocessed	Animals - Insec - Apidae - Bombus pensylvanicus
Animals - Insects	Efferia antiochi	Antioch efferian robberfly	IIDIP07010	None	None	-	-	3611967	FRESNO SOUTH	Mapped	Animals - Insec - Asilidae - Efferia antiochi
Animals - Insects	Efferia antiochi	Antioch efferian robberfly	IIDIP07010	None	None	-	-	3611966	MALAGA	Mapped	Animals - Insec - Asilidae - Efferia antiochi
Animals - Insects	Metapogon hurdi	Hurds metapogon robberfly	IIDIP08010	None	None	-	-	3611966	MALAGA	Mapped	Animals - Insec - Asilidae - Metapogon hur
Animals - Insects	Metapogon hurdi	Hurds metapogon robberfly	IIDIP08010	None	None	-	-	3611967	FRESNO SOUTH	Mapped	Animals - Insec - Asilidae - Metapogon hur
Animals - Insects	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	IICOL48011	Threatened	None	-	-	3611965	SANGER	Mapped	Animals - Insec - Cerambycidae Desmocerus californicus dimorphus
Animals - Insects	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	IICOL48011	Threatened	None	-	-	3611947	RIVERDALE	Mapped and Unprocessed	Animals - Insec - Cerambycidae Desmocerus californicus dimorphus
Animals - Insects	Lytta molesta	molestan blister beetle	IICOL4C030	None	None	-	-	3611966	MALAGA	Mapped	Animals - Insec - Meloidae - Ly molesta
Animals - Insects	Lytta molesta	molestan blister beetle	IICOL4C030	None	None	-	-	3611967	FRESNO SOUTH	Mapped	Animals - Insec - Meloidae - Ly molesta

Animals - Mammals	Vulpes macrotis mutica	San Joaquin kit fox	AMAJA03041	Endangered	Threatened	-	-	3611945	BURRIS PARK	Mapped and Unprocessed	Animals - Mammals - Canidae - Vulp macrotis mutica
Animals - Mammals	Vulpes macrotis mutica	San Joaquin kit fox	AMAJA03041	Endangered	Threatened	-	-	3611946	LATON	Mapped	Animals - Mammals - Canidae - Vulp macrotis mutica
Animals - Mammals	Vulpes macrotis mutica	San Joaquin kit fox	AMAJA03041	Endangered	Threatened	-	-	3611965	SANGER	Mapped	Animals - Mammals - Canidae - Vulp macrotis mutica
Animals - Mammals	Vulpes macrotis mutica	San Joaquin kit fox	AMAJA03041	Endangered	Threatened	-	-	3611947	RIVERDALE	Mapped	Animals - Mammals - Canidae - Vulp macrotis mutica
Animals - Mammals	Dipodomys nitratoides exilis	Fresno kangaroo rat	AMAFD03151	Endangered	Endangered	-	-	3611956	CONEJO	Unprocessed	Animals - Mammals - Heteromyidae - Dipodomys nitratoides exili
Animals - Mammals	Perognathus inornatus	San Joaquin pocket mouse	AMAFD01060	None	None	-	-	3611967	FRESNO SOUTH	Mapped	Animals - Mammals - Heteromyidae - Perognathus inornatus
Animals - Mammals	Eumops perotis californicus	western mastiff bat	AMACD02011	None	None	SSC	-	3611967	FRESNO SOUTH	Mapped and Unprocessed	Animals - Mammals - Molossidae - Eumops perotis californicus
Animals - Mammals	Eumops perotis californicus	western mastiff bat	AMACD02011	None	None	SSC	-	3611955	SELMA	Unprocessed	Animals - Mammals - Molossidae - Eumops perotis californicus
Animals - Mammals	Mustela frenata xanthogenys	San Joaquin long-tailed weasel	AMAJF02038	None	None	-	-	3611955	SELMA	Unprocessed	Animals - Mammals - Mustelidae - Mustela frenata xanthogenys
Animals - Mammals	Mustela frenata xanthogenys	San Joaquin long-tailed weasel	AMAJF02038	None	None	-	-	3611967	FRESNO SOUTH	Unprocessed	Animals - Mammals - Mustelidae - Mustela frenata xanthogenys
Animals - Mammals	Mustela frenata xanthogenys	San Joaquin long-tailed weasel	AMAJF02038	None	None	-	-	3611965	SANGER	Unprocessed	Animals - Mammals - Mustelidae - Mustela frenata xanthogenys
Animals - Mammals	Bassariscus astutus raptor	northern California ringtail	AMAJE01014	None	None	FP	-	3611967	FRESNO SOUTH	Unprocessed	Animals - Mammals - Procyonidae - Bassariscus astutus raptor
Animals - Mammals	Antrozous pallidus	pallid bat	AMACC10010	None	None	SSC	-	3611967	FRESNO SOUTH	Mapped	Animals - Mammals -

											Vespertilionidae Antrozous pallidus
Animals - Mammals	Lasiurus cinereus	hoary bat	AMACC05032	None	None	-	-	3611967	FRESNO SOUTH	Mapped	Animals - Mammals - Vespertilionidae Lasiurus cinereus
Animals - Reptiles	Anniella pulchra	Northern California legless lizard	ARACC01020	None	None	SSC	-	3611967	FRESNO SOUTH	Mapped	Animals - Reptiles - Anniellidae - Anniella pulchra
Animals - Reptiles	Anniella pulchra	Northern California legless lizard	ARACC01020	None	None	SSC	-	3611966	MALAGA	Mapped	Animals - Reptiles - Anniellidae - Anniella pulchra
Animals - Reptiles	Arizona elegans occidentalis	California glossy snake	ARADB01017	None	None	SSC	-	3611966	MALAGA	Mapped	Animals - Reptiles - Colubridae - Arizona elegan occidentalis
Animals - Reptiles	Arizona elegans occidentalis	California glossy snake	ARADB01017	None	None	SSC	-	3611967	FRESNO SOUTH	Mapped	Animals - Reptiles - Colubridae - Arizona elegan occidentalis
Animals - Reptiles	Arizona elegans occidentalis	California glossy snake	ARADB01017	None	None	SSC	-	3611957	CARUTHERS	Mapped	Animals - Reptiles - Colubridae - Arizona elegan occidentalis
Animals - Reptiles	Arizona elegans occidentalis	California glossy snake	ARADB01017	None	None	SSC	-	3611947	RIVERDALE	Mapped	Animals - Reptiles - Colubridae - Arizona elegan occidentalis
Animals - Reptiles	Gambelia sila	blunt-nosed leopard lizard	ARACF07010	Endangered	Endangered	FP	-	3611967	FRESNO SOUTH	Unprocessed	Animals - Reptiles - Crotaphytidae - Gambelia sila
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	3611965	SANGER	Unprocessed	Animals - Reptiles - Emydidae - Emys marmora
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	3611947	RIVERDALE	Unprocessed	Animals - Reptiles - Emydidae - Emys marmora
Animals - Reptiles	Phrynosoma blainvillii	coast horned lizard	ARACF12100	None	None	SSC	-	3611966	MALAGA	Mapped and Unprocessed	Animals - Reptiles - Phrynosomatid - Phrynosoma blainvillii
Animals - Reptiles	Phrynosoma blainvillii	coast horned lizard	ARACF12100	None	None	SSC	-	3611967	FRESNO SOUTH	Mapped and Unprocessed	Animals - Reptiles - Phrynosomatid - Phrynosoma blainvillii

Community - Terrestrial	Valley Sacaton Grassland	Valley Sacaton Grassland	CTT42120CA	None	None	-	-	3611945	BURRIS PARK	Mapped	Community - Terrestrial - Valley Sacaton Grassland
Plants - Vascular	Lasthenia chrysantha	alkali-sink goldfields	PDAST5L030	None	None	-	1B.1	3611956	CONEJO	Mapped	Plants - Vascul - Asteraceae - Lasthenia chrysantha
Plants - Vascular	Lasthenia chrysantha	alkali-sink goldfields	PDAST5L030	None	None	-	1B.1	3611946	LATON	Mapped	Plants - Vascul - Asteraceae - Lasthenia chrysantha
Plants - Vascular	Caulanthus californicus	California jewelflower	PDBRA31010	Endangered	Endangered	-	1B.1	3611967	FRESNO SOUTH	Mapped	Plants - Vascul - Brassicaceae Caulanthus californicus
Plants - Vascular	Caulanthus californicus	California jewelflower	PDBRA31010	Endangered	Endangered	-	1B.1	3611966	MALAGA	Mapped	Plants - Vascul - Brassicaceae Caulanthus californicus
Plants - Vascular	Lepidium jaredii ssp. album	Panoche pepper-grass	PDBRA1M0G2	None	None	-	1B.2	3611947	RIVERDALE	Mapped	Plants - Vascul - Brassicaceae Lepidium jaredi ssp. album
Plants - Vascular	Atriplex cordulata var. cordulata	heartscale	PDCHE040B0	None	None	-	1B.2	3611945	BURRIS PARK	Unprocessed	Plants - Vascul - Chenopodiacea - Atriplex cordulata var. cordulata
Plants - Vascular	Atriplex depressa	brittlescale	PDCHE042L0	None	None	-	1B.2	3611946	LATON	Mapped	Plants - Vascul - Chenopodiacea - Atriplex depressa
Plants - Vascular	Atriplex minuscula	lesser saltscale	PDCHE042M0	None	None	-	1B.1	3611945	BURRIS PARK	Mapped	Plants - Vascul - Chenopodiacea - Atriplex minuscula
Plants - Vascular	Carex comosa	bristly sedge	PMCYP032Y0	None	None	-	2B.1	3611965	SANGER	Mapped	Plants - Vascul - Cyperaceae - Carex comosa
Plants - Vascular	Imperata brevifolia	California satintail	PMPOA3D020	None	None	-	2B.1	3611966	MALAGA	Mapped	Plants - Vascul - Poaceae - Imperata brevifolia
Plants - Vascular	Imperata brevifolia	California satintail	PMPOA3D020	None	None	-	2B.1	3611967	FRESNO SOUTH	Mapped	Plants - Vascul - Poaceae - Imperata brevifolia
Plants - Vascular	Puccinellia simplex	California alkali grass	PMPOA53110	None	None	-	1B.2	3611947	RIVERDALE	Mapped	Plants - Vascul - Poaceae - Puccinellia simplex
Plants - Vascular	Tuctoria greenei	Greenes tuctoria	PMPOA6N010	Endangered	Rare	-	1B.1	3611965	SANGER	Mapped	Plants - Vascul - Poaceae -

											Tuctoria greene
Plants - Vascular	Leptosiphon serrulatus	Madera leptosiphon	PDPLM09130	None	None	-	1B.2	3611966	MALAGA	Mapped	Plants - Vascul - Polemoniacea - Leptosiphon serrulatus
Plants - Vascular	Leptosiphon serrulatus	Madera leptosiphon	PDPLM09130	None	None	-	1B.2	3611967	FRESNO SOUTH	Mapped	Plants - Vascul - Polemoniacea - Leptosiphon serrulatus

Attachment A:
Project Figures

Attachment B:
Project Site Plans

Attachment C
Project Geotechnical Engineering Investigation

Attachment D
Project Traffic Impact Study and VMT Analysis

Attachment E
Project Focused Air Quality Study and Response to City Comments

Attachment F
Project Phase I Environmental Site Assessment

Attachment G
Limited Soils Investigation Report

Attachment H
CNDDB Search Results