

CITY COUNCIL / SUCCESSOR AGENCY / STANTON HOUSING AUTHORITY SPECIAL MEETING

TO THE MEMBERS OF THE CITY COUNCIL / SUCCESSOR AGENCY / STANTON HOUSING AUTHORITY FOR THE CITY OF STANTON AND TO THE CITY CLERK / SECRETARY:

NOTICE IS HEREBY GIVEN that a Special Meeting of the City Council / Successor Agency / Stanton Housing Authority for the City of Stanton is hereby called by the Mayor / Chairman, to be held on July 9, 2024, commencing at 5:30 p.m. at 7800 Katella Avenue, Stanton, CA 90680.

The Agenda for the Special Meeting is attached to this Notice and Call.

Dated:	July 3, 2024	
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s/ Patricia A. Vazquez, City Clerk / Secretary

PUBLIC ACCESS IN-PERSON AND VIA TELECONFERENCE

(Electronically / Telephonically)

Attendance by the members of the public may view the meeting live in one of the following ways:

- Attend in person City Council Chambers: 7800 Katella Avenue, California 90680.
- Via Teleconference (electronically / telephonically) Zoom:

In order to join the meeting via telephone please follow the steps below:

- 1. Dial the following phone number +1 (669) 444-9171 (US).
- 2. Dial in the following Meeting ID: (848 0966 7304) to be connected to the meeting.

In order to join the meeting via electronic device please utilize the Zoom URL link below:

https://us02web.zoom.us/j/84809667304?pwd=xzClmMsvrcYXvbWnxWy7Qm329JDiw4.1

ANY MEMBER OF THE PUBLIC WISHING TO PROVIDE PUBLIC COMMENT FOR ANY ITEM ON THE AGENDA MAY DO SO AS FOLLOWS:

- Attend in person and complete and submit a request to speak card to the City Clerk.
- E-Mail your comments to Pvazquez@StantonCA.gov with the subject line "PUBLIC COMMENT ITEM #" (insert the item number relevant to your comment). Comments received no later than 5:00 p.m. before the scheduled meeting will be compiled, provided to the City Council, and made available to the public before the start of the meeting. Staff will not read e-mailed comments at the meeting. However, the official record will include all e-mailed comments received until the close of the meeting.

Should you have any questions related to participation in the City Council Meeting, please contact the City Clerk's Office at (714) 890-4245 or via e-mail at Pvazquez@StantonCA.gov.

IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN THIS MEETING, PLEASE CONTACT THE OFFICE OF THE CITY CLERK AT (714) 890-4245. NOTIFICATION PRIOR TO THE MEETING WILL ENABLE THE CITY TO MAKE REASONABLE ARRANGEMENTS TO ENSURE ACCESSIBILITY TO THIS MEETING.



CITY COUNCIL/SUCCESSOR AGENCY/STANTON HOUSING AUTHORITY SPECIAL & JOINT REGULAR MEETING STANTON CITY HALL, 7800 KATELLA AVENUE, STANTON, CA

TUESDAY, JULY 9, 2024
SPECIAL CLOSED SESSION - 5:30 P.M.
JOINT REGULAR SESSION - 6:30 P.M.

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The City Council agenda and supporting documentation is made available for public review and inspection during normal business hours in the Office of the City Clerk, 7800 Katella Avenue, Stanton California 90680 immediately following distribution of the agenda packet to a majority of the City Council. Packet delivery typically takes place on Thursday afternoons prior to the regularly scheduled meeting on Tuesday. The agenda packet is also available for review and inspection on the city's website at www.stantonca.gov.

1. CLOSED SESSION (5:30 PM)

2. ROLL CALL Council / Agency / Authority Member Taylor

Council / Agency / Authority Member Torres Council / Agency / Authority Member Van Mayor Pro Tem / Vice Chairperson Warren

Mayor / Chairman Shawver

3. PUBLIC COMMENT ON CLOSED SESSION ITEMS

<u>Closed Session</u> may convene to consider matters of purchase / sale of real property (G.C. §54956.8), pending litigation (G.C. §54956.9(a)), potential litigation (G.C. §54956.9(b)) or personnel items (G.C. §54957.6). Records not available for public inspection.

4. CLOSED SESSION

4A. CONFERENCE WITH LEGAL COUNSEL-ANTICIPATED LITIGATION

Significant exposure to litigation pursuant to Government Code Section 54956.9(d)(2)

Number of Potential Cases: 1

4B. PUBLIC EMPLOYEE PERFORMANCE EVALUATION

Pursuant to Government Code Section 54957

Title: City Attorney

4C. CONFERENCE WITH LEGAL COUNSEL- EXISTING LITIGATION

Pursuant to Government Code section 54956.9(d)(1)

Number of cases: 1

Case Name: Tina Pacific Residents Association, et al. v. City of Stanton

Case Number: 30-2023-01316300-CU-WM-CXC

- 5. CALL TO ORDER STANTON CITY COUNCIL / SUCCESSOR AGENCY / HOUSING AUTHORITY JOINT REGULAR MEETING (6:30 PM)
- 6. ROLL CALL Council / Agency / Authority Member Taylor
 Council / Agency / Authority Member Torres
 Council / Agency / Authority Member Van
 Mayor Pro Tem / Vice Chairperson Warren
 Mayor / Chairman Shawver
- 7. PLEDGE OF ALLEGIANCE
- 8. SPECIAL PRESENTATIONS AND AWARDS None.
- 9. CONSENT CALENDAR

All items on the Consent Calendar may be acted on simultaneously, unless a Council/Board Member requests separate discussion and/or action.

CONSENT CALENDAR

9A. MOTION TO APPROVE THE READING BY TITLE OF ALL ORDINANCES AND RESOLUTIONS. SAID ORDINANCES AND RESOLUTIONS THAT APPEAR ON THE PUBLIC AGENDA SHALL BE READ BY TITLE ONLY AND FURTHER READING WAIVED

RECOMMENDED ACTION:

City Council/Agency Board/Authority Board waive reading of Ordinances and Resolutions

9B. APPROVAL OF WARRANTS

City Council approve demand warrants dated May 31, 2024 – June 13, 2024, in the amount of \$3,837,676.15.

9C. APPROVAL OF MINUTES

City Council/Successor Agency/Housing Authority approve Minutes of Joint Regular Meeting – June 25, 2024.

9D. MAY 2024 INVESTMENT REPORT

The Investment Report as of May 31, 2024, has been prepared in accordance with the City's Investment Policy and California Government Code Section 53646.

RECOMMENDED ACTION:

- 1. City Council find that this item is not subject to California Environmental Quality Act ("CEQA") pursuant to Sections 15378(b)(5) (Organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment); and
- 2. Receive and file the Investment Report for the month of May 2024.

9E. MAY 2024 INVESTMENT REPORT (SUCCESSOR AGENCY)

The Investment Report as of May 31, 2024, has been prepared in accordance with the City's Investment Policy and California Government Code Section 53646.

RECOMMENDED ACTION:

- 1. Successor Agency find that this item is not subject to California Environmental Quality Act ("CEQA") pursuant to Sections 15378(b)(5) (Organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment); and
- 2. Receive and file the Investment Report for the month of May 2024.

9F. MAY 2024 GENERAL FUND REVENUE AND EXPENDITURE REPORT; HOUSING AUTHORITY REVENUE AND EXPENDITURE REPORT; STATUS OF CAPITAL IMPROVEMENT PROGRAM; AUTHORIZE PAYMENT TO BEN'S ASPHALT, AND APPROPRIATION OF FUNDS FOR FISCAL YEAR 2023/24 OPERATING BUDGET

The Revenue and Expenditure Report for the month ended May 31, 2024, has been provided to the City Manager in accordance with Stanton Municipal Code Section 2.20.080 (D) and is being provided to City Council. This report includes information for both the City's General Fund and the Housing Authority Fund.

In addition, staff is requesting ratification of the payment to Ben's Asphalt, Inc. for emergency work performed on Lampson Avenue. This expenditure can be funded by the City's Gas Tax Fund (#211) because it is related to street maintenance. The amount of the invoice is \$55,801.40, which is not included in the City's Fiscal Year 2023/24 Operating Budget. As a result, staff is requesting City Council approval to appropriate funds from the Gas Tax Fund's available fund balance.

RECOMMENDED ACTION:

- 1. City Council find that this item is not subject to California Environmental Quality Act ("CEQA") pursuant to Sections 15378(b)(5) (Organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment); and
- Receive and file the General Fund and Housing Authority Fund May 2024 Revenue and Expenditure Reports and Status of Capital Improvement Projects for the month ended May 31, 2024; and
- 3. Waive competitive bidding requirements in the City's purchasing policy; and
- 4. Ratify the payment to Ben's Asphalt, Inc. in the amount of \$55,801.40 for emergency work performed on Lampson Avenue; and
- 5. Approve an appropriation of \$55,801 from the Gas Tax Fund's (#211) available fund balance to fund the emergency work completed on Lampson Avenue.

9G. ACCEPTANCE OF THE STANTON CENTRAL PARK SHADE STRUCTURE INSTALLATION PROJECT

The Stanton Central Park Shade Structure Installation Project consisting of installing a single-post shade structure and all appurtenant work at Stanton Central Park is now complete. The final construction cost for the project was \$42,950, the contract award amount. The City Engineer, in his judgment, certifies that the work was satisfactorily completed as of June 26, 2024, and recommends that the City Council accept the completed work performed on this project.

RECOMMENDED ACTION:

- City Council declare this project categorically exempt under the California Environmental Quality Act, Class 1, and 15301 as a minor exterior alteration of an existing public facility and Class 3, Section 15303 as construction of an accessory structure; and
- 2. Accept the completion of improvements for the Stanton Central Park Shade Structure Installation Project, as certified by the City Engineer, and affix the date of June 26, 2024 as the date of completion of all work on this project; and
- 3. Approve the final construction contract amount of \$42,950 with R.E. Schultz, Inc.; and
- Direct the City Clerk within ten (10) days from the date of acceptance to file the Notice of Completion (Attachment) with the County Clerk-Recorder of the County of Orange; and

5. Direct City staff, after thirty-five (35) days has elapsed from the filing of the "Notice of Completion" with the County Clerk-Recorder, to make the retention payment to R.E. Schultz, Inc. in the amount of \$2,147.50.

9H. APPROVAL OF FIRST AMENDMENT TO PROFESSIONAL SERVICES AGREEMENT WITH PACIFIC ADVANCED CIVIL ENGINEERING, INC.

At the City Council meeting of December 12, 2023, a contract valued at \$539,870 was awarded to Pacific Advanced Civil Engineering, Inc. (PACE) to update the Storm Drain Master Plan. Due to PACE's familiarity with storm drain and sewer systems, they were chosen to review the plans for the Orco Block project by Stanton Land, LLC (Task Code No. 2024-709). The proposed First Amendment presented for the Council's consideration increases the not-to-exceed contract amount to \$574,670, the \$34,800 increase is a pass-through cost covered by Stanton Land, LLC for plan review services.

RECOMMENDED ACTION:

- 1. City Council find that the recommended actions are exempt from CEQA per Section15378(b)(5) [Project does not include]: organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment; and
- 2. Approve the First Amendment to the Professional Services Agreement with Pacific Advanced Civil Engineering, Inc. and allow the City Attorney to make minor edits as necessary prior to the execution of the Amendment; and
- 3. Authorize the City Manager to execute the First Amendment to the Professional Agreement with Pacific Advanced Civil Engineering, Inc.

9I. AWARD A PROFESSIONAL SERVICES AGREEMENT TO PBS ENGINEERS, INC. FOR ENGINEERING AND DESIGN SERVICES FOR HEATING, VENTILATION, AND AIR CONDITIONING (HVAC) REPLACEMENT OF THE COMMUNITY CENTER IMPROVEMENTS PROJECT

The Community Center/City Hall building HVAC system has exceeded its useful life and requires frequent repairs and temporary fixes due to the age of the system. City staff issued a Request for Proposals (RFP) soliciting engineering and design services to replace the existing HVAC units in the Community Center/City Hall. After completing the RFP process, staff recommends awarding a contract to PBS Engineers, Inc. in the amount of \$128,000.

RECOMMENDED ACTION:

- 1. City Council declare this project to be categorically exempt under the California Environmental Quality Act, Class 1, Section 15301(b) as operation, repair, and maintenance of existing publicly owned utilities; and
- 2. Award a professional services agreement to PBS Engineers, Inc. for Engineering and Design Services for HVAC Replacement of the Community Center Improvements Project in the amount of \$128,000; and
- 3. Authorize the City Manager to bind the City of Stanton and PBS Engineers, Inc. in a contract to provide the services; and
- 4. Authorize the City Manager to approve a contract contingency, not to exceed ten percent of the contract amount, of \$12,800.

9J. PROFESSIONAL SERVICES AGREEMENT WITH MATRIX AUDIO VISUAL DESIGNS, INC. FOR COUNCIL CHAMBER AUDIO SYSTEM RENOVATION SERVICES

The City Council will consider entering into a Professional Services Agreement with Matrix Audio Visual Designs, Inc. (Matrix) for the Council Chamber Audio System Renovation project.

RECOMMENDED ACTION:

- City Council find that this item is not subject to California Environmental Quality Act ("CEQA") pursuant to Sections 15378(b)(5)(Organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment); and
- 2. Authorize the City Manager to enter into a Professional Services Agreement between the City and Matrix Audio Visual Designs, Inc. for audio system renovation services in the Council Chamber in the amount of \$78,184.30 for a term of one year with two additional one-year extensions; and
- 3. Authorize the City Manager to approve change orders as needed and determined by City staff, for any contingencies up to \$5,000, increasing the total authorized compensation for this agreement to a potential maximums of \$83,184.30.

END OF CONSENT CALENDAR

10. PUBLIC HEARINGS None.

11. UNFINISHED BUSINESS None.

12. NEW BUSINESS

12A. ADOPT THE 2024 SEWER MASTER PLAN UPDATE AND APPROVE THE SEWER SYSTEM MANAGEMENT PLAN UPDATE

A Sewer Master Plan assesses the capacity and condition of the City's sewer collection system incorporating updated housing element information and provides recommendations to address deficiencies. It is a valuable planning tool for the City's Capital Improvement Program and managing the sewer system for future development. Furthermore, the City's General Waste Discharge Requirements Order No. 2006-003 mandates the development and implementation of a Sewer System Management Plan.

RECOMMENDED ACTION:

- 1. City Council declare this action to be categorically exempt under the California Environmental Quality Act, Section 15378(b)(5) (Organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment); and
- 2. Adopt the 2024 Sewer Master Plan Update.

12B. SECOND AMENDMENT TO CITY MANAGER EMPLOYMENT AGREEMENT, APPROPRIATION OF FUNDS, RESOLUTION REGARDING AMENDMENT TO SALARY RATES, AND APPROPRIATION OF FUNDS

For consideration is the Second Amendment to the Employment Agreement between the City and Hannah Shin-Heydorn regarding the position of City Manager. If the amendment is approved, then the City Council should accordingly approve an appropriation of \$22,505 and the City's salary rates resolution should also be amended.

RECOMMENDED ACTION:

- 1. City Council declare that the project is exempt from the California Environmental Quality Act ("CEQA") under Section 15378(b)(2) continuing administrative or maintenance activities, such as purchase of supplies, personnel-related actions, general policy, and procedures making, and
- 2. Authorize the Mayor to approve and execute the Second Amendment to Employment Agreement with Hannah Shin-Heydorn; and
- Appropriate \$19,130 from the General Fund (#101) available fund balance and \$3,375 from the Housing Authority Fund (#285) available fund balance for Fiscal Year 2024/25; and

4. Adopt Resolution No. 2024-27 amending the Salary Rates, entitled:

"A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF STANTON, CALIFORNIA, REGARDING EMPLOYEE BENEFITS AND SALARY RATES FOR ALL CLASSES OF EMPLOYMENT."

12C. AN URGENCY INTERIM ORDINANCE OF THE CITY COUNCIL OF THE CITY OF STANTON ESTABLISHING A TEMPORARY MORATORIUM UNDER GOVERNMENT CODE SECTIONS 36937 AND 65858 ON THE ESTABLISHMENT OF NEW MEDICAL SERVICES UNDER MUNICIPAL CODE SECTION 20.400.200; AND DETERMINING THE ACTION TO BE EXEMPT FROM CEQA

The City of Stanton ("City") has received inquiries about establishing new medical-services uses under section 20.400.200 of the municipal code. These are facilities or clinics that operate outpatient treatment and counseling centers that, in addition to counseling, treat individuals with substance abuse disorder by employing medicines that eliminate drug cravings and withdrawal symptoms typically experienced when individuals with various substance dependence stop using their substance of abuse. While these uses provide a valuable service to the community, they can be associated with negative impacts on the vulnerable populations that they serve if not property regulated. The City Council is asked to consider an interim urgency ordinance to temporarily prohibit the establishment of new medical-service uses under section 20.400.200 and the expansion, enlargement, or alteration of these uses that already exist in the City. The interim urgency ordinance is intended to provide the City with time to study the impacts of these establishments and to develop appropriate new regulations.

RECOMMENDED ACTION:

- 1. City Council find that adoption of the proposed urgency ordinance is:
 - a. Not a "project" within the meaning of Section 15378 of the State of California Environmental Quality Act ("CEQA") Guidelines (Title 14 of the California Code of Regulations) because it has no potential for resulting in physical change in the environment, directly or indirectly; and
 - b. Exempt from the requirements of CEQA under Section 15061(b)(3) of the CEQA Guidelines, as it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment.
- 2. Adopt Urgency Ordinance No. 1145, entitled:

"AN URGENCY INTERIM ORDINANCE OF THE CITY COUNCIL OF THE CITY OF STANTON ESTABLISHING A TEMPORARY MORATORIUM UNDER GOVERNMENT CODE SECTIONS 36937 AND 65858 ON THE ESTABLISHMENT OF NEW MEDICAL SERVICES UNDER MUNICIPAL CODE SECTION 20.400.200; AND DETERMINING THE ACTION TO BE EXEMPT FROM CEQA."

13. ORAL COMMUNICATIONS - PUBLIC

At this time members of the public may address the City Council/Successor Agency/Stanton Housing Authority regarding any items within the subject matter jurisdiction of the City Council/Successor Agency/Stanton Housing Authority, provided that NO action may be taken on non-agenda items.

- Members of the public wishing to address the Council/Agency/Authority during Oral Communications-Public or on a particular item are requested to fill out a REQUEST TO SPEAK form and submit it to the City Clerk. Request to speak forms must be turned in prior to Oral Communications-Public.
- When the Mayor/Chairman calls you to the microphone, please state your Name, slowly and clearly, for the record. A speaker's comments shall be limited to a three (3) minute aggregate time period on Oral Communications and Agenda Items. Speakers are then to return to their seats and no further comments will be permitted.
- Remarks from those seated or standing in the back of chambers will not be permitted.
 All those wishing to speak including Council/Agency/Authority and Staff need to be recognized by the Mayor/Chairman before speaking.

14. WRITTEN COMMUNICATIONS None.

15. MAYOR/CHAIRMAN COUNCIL/AGENCY/AUTHORITY INITIATED BUSINESS

15A. COMMITTEE REPORTS/ COUNCIL/AGENCY/AUTHORITY ANNOUNCEMENTS

At this time Council/Agency/Authority Members may report on items not specifically described on the agenda which are of interest to the community provided no discussion or action may be taken except to provide staff direction to report back or to place the item on a future agenda.

15B. COUNCIL/AGENCY/AUTHORITY INITIATED ITEMS FOR A FUTURE MEETING

At this time Council/Agency/Authority Members may place an item on a future agenda.

15C. COUNCIL/AGENCY/AUTHORITY INITIATED ITEMS FOR A FUTURE STUDY SESSION

At this time Council/Agency/Authority Members may place an item on a future study session agenda.

Currently Scheduled: None.

15D. CITY COUNCIL INITIATED ITEM — DISCUSSION REGARDING REQUEST TO PROCEED WITH A NON-DISCLOSURE AGREEMENT WITH THE ORANGE COUNTY POWER AUTHORITY (OCPA)

At the June 25, 2024, City Council meeting, Council Member Van requested that this item be agendized for discussion. Council Member Van is requesting to discuss proceeding with a non-disclosure agreement (NDA) with the Orange County Power Authority to conduct a feasibility study at no cost to the City, no use of staff time, and no commitment to join.

RECOMMENDED ACTION:

City Council provide direction to staff.

16. ITEMS FROM CITY ATTORNEY/AGENCY COUNSEL/AUTHORITY COUNSEL

17. ITEMS FROM CITY MANAGER/EXECUTIVE DIRECTOR

17A. ORANGE COUNTY FIRE AUTHORITY

At this time the Orange County Fire Authority will provide the City Council with an update on their current operations.

18. ADJOURNMENT

I hereby certify under penalty of perjury under the laws of the State of California, the foregoing agenda was posted at the Post Office, Stanton Community Services Center and City Hall, not less than 72 hours prior to the meeting. Dated this 3rd day of July, 2024.

s/ Patricia A. Vazquez, City Clerk/Secretary

Item: 9B

Click here to return to the agenda.

CITY OF STANTON WARRANT REGISTER

May 31 - June 13, 2024

Electronic Transaction Nos. Check Nos.	3257-3276 137990-138058*	\$ 2,550,929.18 1,143,377.36
Payroll dated June 6, 2024**	Total Payments to Vendors	\$ 3,694,306.54 143,369.61
	TOTAL PAYMENTS	\$ 3,837,676.15

Demands listed on the attached registers
conform to the City of Stanton Annual
Budget as approved by the City Council.

Demands listed on the attached registers are accurate and funds are available for payment thereof.

/s/ Hannah Shin-Heydorn	/s/ Michelle Bannigan	
City Manager	Finance Director	

^{*=} The following checks were damaged during the check printing process: 137990, 137991, 137993. The following checks were not issued: 138039-138055 and 138057.

Check numbers 138012-138014 were voided and reissued with check numbers 138056 and 138058.

^{** =} Represents the total net payroll paid through direct deposit on pay date.

ATTACHMENT A Page 1 of 7

Accounts Payable

Checks by Date - Detail by Check Number

User: MBannigan

Printed: 6/19/2024 7:31 AM



Check No	Vendor No Invoice No	Vendor Name Description	Check Date Reference	Check Amount
3257	GOL1321 May 30 May 30 May 30 May 30 May 30	GOLDEN STATE WATER COMPANY 4/9/24-5/8/24 Water Services Median 4/9/24-5/8/24 Water Services Median 4/9/24-5/8/24 Water Services Park 4/9/24-5/8/24 Water Services Park 4/9/24-5/8/24 Water Services Building	05/31/2024	2,379.59 125.05 4,516.82 5,449.47 424.33
			Total for Check Number 3257:	12,895.26
3258	BEN15755 14668 14668 14668	BENEFIT COORDINATORS CORPORAT June 2024 Prism Life Ins - City June 2024 Prism Disability Ins - City June 2024 Prism Life Ins - Employee	05/31/2024	442.80 2,526.27 882.44
			Total for Check Number 3258:	3,851.51
3259	VSP13387 820517478 820517478	VISION SERVICE PLAN - (CA) June 2024 Health Ins-Employee VSP June 2024 Health Ins-Employer VSP (May 24 December 1988)	05/31/2024	59.12 449.48
			Total for Check Number 3259:	508.60
3260	REC16138 68626174 68626174	RECTRAC REFUNDS Deposit Refund for 5/18/2024 for Rosalinda Pue (1) hr Rental Fee Refund for 5/18/2024 for Rosal	05/31/2024	677.61 150.00
			Total for Check Number 3260:	827.61
3261	SOC2734 05/28/24 05/28/24 05/28/24 05/28/24	SO CAL EDISON Electric Service - Building May Electric Service - Medians Apr Electric Service - Signals May Stanton District Light Apr	06/03/2024	8,240.65 26.74 73.82 71.20
			Total for Check Number 3261:	8,412.41
3262	GOL1321 May 31	GOLDEN STATE WATER COMPANY Apr - May 2 Water Services Housing Authority	06/03/2024	97.94
			Total for Check Number 3262:	97.94
3263	HOP16467 2024-0010	HOPE CENTER OF ORANGE COUNTY North Orange County Regional Outreach & Engi	06/06/2024	61,598.80
			Total for Check Number 3263:	61,598.80
3264	REC16138 66237101 66507587 66609296 67134298	RECTRAC REFUNDS Jasmine Montiel Deposit Refund Anaseli Frutos Deposit Refund Angelica Lutack Deposit Refund Man Hieu Thai Deposit Refund	06/06/2024	150.00 150.00 150.00 150.00

ATTACHMENT A Page 2 of 7

Check No	Vendor No	Vendor Name	Check Date	Check Amount
	Invoice No	Description	Reference	
	67168570	Christine Tran Deposit Refund		300.00
	67473287 68222033	Beverly Aguilar Deposit Refund Larry Todd Deposit Refund		100.00 200.00
	69582612	World Church Service Deposit Refund		200.00
	70477675	Stephanie Hernandez Deposit Refund		300.00
			Total for Check Number 3264:	1,700.00
3265	INT1569	INTERNAL REVENUE SERVICE	06/07/2024	
	6/6/2024	(MC) Medicare - Employee Share		2,661.50
	6/6/2024 6/6/2024	(ME) Medicare - City Share (FD) Federal Tax Withholding		2,661.50 19,280.74
	0,0,2021	(12) Teach tax manifesting		
			Total for Check Number 3265:	24,603.74
3266	MIS16496 PPE 6/1/02024	MISSIONSQUARE PPE 6/1/2024 - #302393	06/07/2024	2,065.00
	PPE 6/1/02024	PPE 0/1/2024 - #302393		2,063.00
			Total for Check Number 3266:	2,065.00
3267	EDD1067	EDD	06/07/2024	
	6/6/2024 6/6/2024	State Tax Withholding State Unemployment		7,457.19 135.64
	0,0,2021	same shemple, ment		
			Total for Check Number 3267:	7,592.83
3268	INT15739 363706	INTERWEST CONSULTING GROUP, IN APR-2024/Tina-Pacific Relocation Services	06/07/2024	19,902.50
	303700	At N-2024/ Illia-1 aeme Relocation Services		
			Total for Check Number 3268:	19,902.50
3269	JEN14424	ANA JENSEN	06/07/2024	400.00
	PPE 06/01/2024	Wage Garnishment PPE 06/01/2024		400.00
			Total for Check Number 3269:	400.00
3270	PUB15477	PUBLIC AGENCY RISK SHARING AUT	06/07/2024	
	PPE 06/01/2024	PARS - PPE 06/01/2024		2,227.89
			Total for Check Number 3270:	2,227.89
3271	ATH16520	ATHENS ADMINISTRATORS	06/07/2024	
	REQUEST 15	Account Escrow Replenishment		3,398.74
			Total for Check Number 3271:	3,398.74
3272	USB13423	US BANK	06/07/2024	
	2016AB-052024	2016AB Bonds Debt Service Payment		712,814.26
	2016CD-052024 2020A-052024	2016CD Bonds Debt Service Payment 2020 A Bonds Debt Service Payment		1,235,943.87 415,393.74
			Total for Check Number 3272:	2,364,151.87
2272	COL 1221	COLDEN STATE WATER COMPANY		2,304,131.87
3273	GOL1321 June 07	GOLDEN STATE WATER COMPANY 4/11/24-5/9/24 Water Services Park May 17	06/10/2024	494.14
			Total for Check Number 3273:	494.14
3274	CAS680	CA ST PERS 103	06/10/2024	
2271	PPE 06/01/2024	PERS Employee Classic T2		4,188.18
	PPE 06/01/2024	PERS - City's Share-Classic T2		6,042.97
	PPE 06/01/2024	PERS Employee New T3		5,370.84

ATTACHMENT A Page 3 of 7

Check No	Vendor No	Vendor Name	Check Date	Check Amount
	Invoice No	Description	Reference	
	PPE 06/01/2024	PERS - Survivor Classic T2		9.30
	PPE 06/01/2024	PERS - Survivor New T3		23.25
	PPE 06/01/2024 PPE 06/01/2024	PERS-City's Share-New T3 PERS - Survivor (Employee) T1		5,322.34 7.44
	PPE 06/01/2024 PPE 06/01/2024	PERS - Employee's Share T1		1,840.79
	PPE 06/01/2024	PERS - City's Share T1		3,279.23
			Total for Check Number 3274:	26,084.34
3275	CAL15478 6/5/2024	CALIFORNIA JOINT POWERS INSURA Trust Account Replenishmnent	06/12/2024	8,776.00
			Total for Check Number 3275:	8,776.00
3276	REC16138	RECTRAC REFUNDS	06/12/2024	
	66559641	Deposit Refund for Liane Tran, 66559641, 06/09)	150.00
	67425666	Deposit Refund for Christopher Rivera, 674256		300.00
	67466932	Deposit Refund for Karen Ramirez, 67466932,		150.00
	68838408	Deposit Refund for Julie Frank, 68838408, 6/9/2		300.00
	68873510 69159237	Deposit Refund for Anabel Sanchez, 68873510, Deposit Refund for Christian Cisneros, 6915923		150.00 150.00
	69479818	Deposit Refund for Hazen Gonzalez, 69479818,		100.00
	69483817	Cancellation for Hazen Gonzalez, 69483817, 07		75.00
	71099652	Cancellation for Hazen Gonzalez, 71099652, 07		-35.00
			Total for Check Number 3276:	1,340.00
137992	MAR16945	NAYELI MARTINEZ PEREZ	06/13/2024	
	8911 PACIFIC AV	8911 Pacific #A		5,347.00
		7	Total for Check Number 137992:	5,347.00
137994	AGU16571 65920678	JENNIFER AGUILAR Deposit Refund	06/13/2024	200.00
	00320070		Fatal for Charle Name of 127004.	
			Total for Check Number 137994:	200.00
137995	ALT16658 IS7121812	ALTA LANGUAGE SERVICES, INC Bilingual Language CertificationTests (x1)	06/13/2024	55.00
		7	Total for Check Number 137995:	55.00
137996	ATT377	AT&T	06/13/2024	
	5/28/2024			186.50
	5/30/2024 5/30/2024	Cerritos/Magnolia - May Cerritos/Knott - Apr		29.12 17.24
		7	Fotal for Check Number 137996:	232.86
137997	BOY13501	BOYS & GIRLS CLUBS OF GARDEN G	1. 06/12/2024	
13/99/	2086I	Contractual Services (FaCT) Boys & Girls Club		7,346.28
		1	Total for Check Number 137997:	7,346.28
137998	C3O13388	C3 TECHNOLOGY SERVICES	06/13/2024	
	INV178468	Sharp Copiers/All Facilities/Managed Print Sves	3	1,095.25
		7	Fotal for Check Number 137998:	1,095.25
137999	CAR630 SC-1594379	CARE AMBULANCE SERVICE INC Ambulance Service/Audrey C. Walker/Syc Date	06/13/2024	200 00
9	SC-1594379	Ambulance Service/Audrey C. Walker/Svc Date		200.00

ATTACHMENT A Page 4 of 7

Check No	Vendor No Invoice No	Vendor Name Description	Check Date Reference	Check Amount
			Total for Check Number 137999:	200.00
138000	COR16952 8890 TINA WAY-A	MELISSA TAPIA CORTEZ 8890 Tina Way #A/Final Moving Assist Pymt	06/13/2024 2	1,032.50
			Total for Check Number 138000:	1,032.50
138001	COR16952 8890 TINA WAY-A	MELISSA TAPIA CORTEZ 8890 Tina Way #A/Final Moving Assist Pymt	06/13/2024 1	1,032.50
			Total for Check Number 138001:	1,032.50
138002	COR16952 8890 TINA WAY-A	MELISSA TAPIA CORTEZ 8890 Tina Way #A	06/13/2024	28,887.50
			Total for Check Number 138002:	28,887.50
138003	CYP925 73282	CYPRESS ENGRAVING Engraved name signs for C. Ko/Cubicle	06/13/2024	22.84
			Total for Check Number 138003:	22.84
138004	DEL16953 8890 TINA WAY-A	RANCHO DEL MONTE 3070 W Del Monte Dr/Advance Rental Assist	06/13/2024 Py	5,225.00
			Total for Check Number 138004:	5,225.00
138005	FRI13695 FY2324-10FC	FRIENDLY CENTER, INC Contractual Services (FaCT) Friendly Center	06/13/2024 - A	5,912.26
			Total for Check Number 138005:	5,912.26
138006	GMU16298 65995	GMU GEOTECHNICAL, INC Pavement Materials Testing and Evaluations f	06/13/2024 for	10,215.00
			Total for Check Number 138006:	10,215.00
138007	GRE1360 122003A 122003B	GREAT SCOTT TREE SERVICE, INC Tree trimming FY 2/24 (90%)-May Tree trimming FY 23/24 (10%)-May	06/13/2024	7,018.56 779.84
			Total for Check Number 138007:	7,798.40
138008	HAS16808 963836A 963836B	HASA INC. To provide maintenance to the splash pads at I To provide maintenance to the splash pads at I		250.00 250.00
			Total for Check Number 138008:	500.00
138009	IME16880	IMEG CONSULTANTS CORP	06/13/2024	
	24002626.01-2	Provide surveying services per SCE lease agree	een	13,940.00
			Total for Check Number 138009:	13,940.00
138010	INT1579 FY2324-10STN	INTERVAL HOUSE Contractual Services (FaCT) Interval House -	06/13/2024 A _I	1,492.97
			Total for Check Number 138010:	1,492.97
138011	INF1555 2023110013 2023120009	IRC, INC Background Checks (11/1/23-12/1/23) Background Checks (12/1/23-1/1/24)	06/13/2024	254.61 298.44

ATTACHMENT A Page 5 of 7

	nvoice No	Th. 1.41		
	024010014	Description	Reference	05.05
	.024010014 .024020014	Background Checks (1/1/24-2/1/24) Background Checks (2/1/24-3/1/24)		85.05 272.97
2	024030011	Background Checks (3/1/24-4/1/24)		227.29
2	024040012	Background Checks (4/1/24-5/1/24)		265.77
			Total for Check Number 138011:	1,404.13
	MAU16939 8696938	LIRIO MAURO Deposit refund	06/13/2024	300.00
			Total for Check Number 138015:	300.00
	MES16758 910048539	MESA ENERGY Inspection HVAC at City Yard	06/13/2024	1,510.00
			Total for Check Number 138016:	1,510.00
138017 N	MIN15024	MINUTEMAN PRESS	06/13/2024	
4	1215	Business cards for C. Ko		61.18
			Total for Check Number 138017:	61.18
	NAT2050 4068	NATIONWIDE ENVIRONMENTAL SV Sweeper Services for June 24	/C: 06/13/2024	12,052.31
			Total for Check Number 138018:	12,052.31
138019 N	NOW1000	NOWLIN FENCE INC.	06/13/2024	
2	8230	Repair chain link fence @Western & Orangev	voc	4,420.00
			Total for Check Number 138019:	4,420.00
	NV515131	NV5, INC	06/13/2024	
3	86400	Consulting services for the preparation of an u	ıpd	13,227.50
			Total for Check Number 138020:	13,227.50
	OIL15570	OFRS, INC	06/13/2024	
3	626	Encampment cleanup located in a manhole at	10	1,985.00
			Total for Check Number 138021:	1,985.00
	DNY15505	ONYX PAVING COMPANY INC	06/13/2024	752 (42.20
2 R	Retention Payme	Construction for FY 22/23 Citywide Street Re Retention 5%	esui	752,643.39 -37,632.17
			Total for Charl Number 129022.	715.011.22
120022 P	RGG16879	D.C. GENERAL ENGINEERING DIG	Total for Check Number 138022:	715,011.22
138023 R		R.G. GENERAL ENGINEERING INC Construction for the Premier Park Renovation	06/13/2024 a Pr	251,819.16
R	Retention Payme	Retention 5%		-12,590.95
			Total for Check Number 138023:	239,228.21
138024 S	SOC12606	SO CAL INDUSTRIES	06/13/2024	
	91907 91908	Fence Rental for 10652 Bell St - June Fence Rental for 8910-8920 Pacific - June		59.11 603.27
0	191900	rence Rental for 6910-6920 Facilite - June		
			Total for Check Number 138024:	662.38
	GAS1282	SOCALGAS Con sorving City Hell May	06/13/2024	263.82
	5/28/2029 5/30/2024	Gas service - City Hall May Gas service - Corp Yard May		263.82 26.12

ATTACHMENT A Page 6 of 7

Check Amount	Check Date Reference	Vendor Name Description	Vendor No Invoice No	Check No
289.94	Total for Check Number 138025:			
25.00	SS 06/13/2024	SOUTHLAND AUTOMOTIVE WORK Tire patch for trailer	WAT13601 32720	138026
25.00	Total for Check Number 138026:			
540.00		SPRINGBROOK HOLDING COMPAN Cirrus Implementation - Standard Profession	SPR12052 TM INV-007782	138027
540.00	Total for Check Number 138027:			
4,000.00	06/13/2024 ritin	TOWNSEND PUBLIC AFFAIRS, INC JUN-2024/Legislative Advocacy & Grant Wr	TOW14437 21692	138028
4,000.00	Total for Check Number 138028:			
184.00	06/13/2024	TRULY NOLEN OF AMERICA INC Monthly pest spraying for May	TRU13167 650216395	138029
184.00	Total for Check Number 138029:			
48,150.00	06/13/2024 enta	CAMILLE TYNE 724 S. Kenmore Anaheim 92804/Advance Re	TYN16946 8911 PACIFIC AV	138030
48,150.00	Total for Check Number 138030:			
35.63 35.62	06/13/2024	UNDERGROUND SERVICE ALERT DigAlert monthly services-May DigAlert monthly services-May	UND2984 520240723A 520240723B	138031
71.25	Total for Check Number 138031:			
450.00 150.00	06/13/2024	VAN RY MAINTENANCE Floor service Civic Center - May 2x Floor service FRC - May 1x	VAN13002 9879 9879	138032
600.00	Total for Check Number 138032:			
739.85 852.96		VERIZON WIRELESS Mobile/Data Plans/Hotspots 4/17/24-5/16/24 Mobile/Data Plans/Hotspots 4/17/24-5/16/24	VER3059 9964302252 9964302253	138033
1,592.81	Total for Check Number 138033:			
301.63	06/13/2024	VISTA PAINT CORP Stanton Park Refresh	VIS3077 2024-459380-00	138034
301.63	Total for Check Number 138034:			
110.00	06/13/2024 ees	WAGEWORKS, INC May2024/Administration and Compliance Fe	WAG13143 INV6583704	138035
110.00	Total for Check Number 138035:			
1,291.02 392.92	Wid	WELLS FARGO FINANCIAL LEASIN FY23-24/MFD Equip Lease/(6) Copiers/(1) V FY24-25/MFD Equip Lease/(6) Copiers/(1) V	WEL16807 5029933486A 5029933486B	138036
1,683.94	Total for Check Number 138036:			
	06/13/2024	HAN SOL YOO	YOO16285	138037

ATTACHMENT A Page 7 of 7

				raye / Ul /	
Check No	Vendor No	Vendor Name	Check Date	Check Amount	
	Invoice No	Description	Reference		
	5/28/2024	Tuition Reimbursement/Han Sol Yoo		1,250.00	
			Total for Check Number 138037:	1,250.00	
138038	YUN16677	YUNEX LLC	06/13/2024		
	561002126	Traffic Signal Response - April		2,116.50	
			Total for Check Number 138038:	2,116.50	
138056	MAR16945	NAYELI MARTINEZ PEREZ	06/13/2024		
	8911 PACIFIC AV	8911 Pacific #A/Final Moving Assist Pymt 1		1,032.50	
			Total for Check Number 138056:	1,032.50	
138058	MAR16945	NAYELI MARTINEZ PEREZ	06/13/2024		
	8911 PACIFIC AV	8911 Pacific #A/Final Moving Assist Pymt 2		1,032.50	
			Total for Check Number 138058:	1,032.50	
			Report Total (65 checks):	3,694,306.54	

Item: 9C

DRAFT

Click here to return to the agenda.

MINUTES OF THE CITY COUNCIL / SUCCESSOR AGENCY / HOUSING AUTHORITY OF THE CITY OF STANTON MEETING JUNE 25, 2024

SPECIAL CITY COUNCIL / SUCCESSOR AGENCY / HOUSING AUTHORITY MEETING (5:30 PM)

JOINT REGULAR CITY COUNCIL / SUCCESSOR AGENCY / HOUSING AUTHORITY MEETING (6:30 PM)

1. **CALL TO ORDER / CLOSED SESSION**

The City Council / Successor Agency / Housing Authority meeting was called to order at 5:30 p.m. by Mayor / Chairman Shawver.

2. **ROLL CALL**

Present: Council/Agency/Authority Member Taylor, Council/Agency/Authority

> Member Torres, Council/Agency/Authority Member Van, Mayor Pro Tem/Vice Chairperson Warren, and Mayor/Chairman Shawver.

Absent: None.

Excused: None.

3. PUBLIC COMMENT ON CLOSED SESSION ITEMS None.

4. CLOSED SESSION

The members of the City Council / Successor Agency / Housing Authority of the City of Stanton proceeded to closed session at 5:32 p.m. for discussion regarding:

4A. PUBLIC EMPLOYEE PERFORMANCE EVALUATION Pursuant to Government Code Section 54957

Title: City Manager

4B. CONFERENCE WITH LABOR NEGOTIATORS Pursuant to Government Code Section 54957.6

Agency Designated Negotiators: Mayor

Unrepresented employee: City Manager

5. CALL TO ORDER / SUCCESSOR AGENCY / STANTON HOUSING AUTHORITY MEETING

The City Council / Successor Agency / Housing Authority reconvened in open session at 6:39 p.m.

6. ROLL CALL

Present: Council/Agency/Authority Member Taylor, Council/Agency/Authority

Member Torres, Council/Agency/Authority Member Van, Mayor Pro Tem/Vice Chairperson Warren, and Mayor/Chairman Shawver.

Absent: None.

Excused: None.

The City Attorney / Agency Counsel reported that the Stanton City Council / Successor Agency / Housing Authority met in closed session from 5:32 to 6:39 p.m.

The City Attorney / Agency Counsel reported that there was no reportable action.

7. PLEDGE OF ALLEGIANCE

Led by Mr. Mike Pierce, resident and Stanton Lions Club Member.

8. SPECIAL PRESENTATIONS AND AWARDS

- A. Special presentation of awards recognizing the sponsors of the City's Paint the Town with Love! event, the City's first ever City-wide volunteer event:
 - Jamboree Housing Corporation
 - Starbucks Store #06576 (Beach Boulevard & Chapman Avenue)
 - The Home Depot Store #6952
 - The Stanton Lions Club
 - Townsend Public Affairs
- B. The City Council proclaimed the month of July 2024 to be Parks and Recreation Month in the City of Stanton and presented a proclamation to Ms. Nancy Ann Do, Stanton resident and community volunteer.
- C. Presentation by Mr. Gabe Dima-Smith, External Affairs Manager, Orange County Power Authority, sharing their mission with the City Council and providing information on their current operations.

9. CONSENT CALENDAR

Motion/Second: Warren/Van Motion carried by the following vote:

AYES: 5 (Shawver, Taylor, Torres, Van, and Warren)

NOES: None ABSTAIN: None ABSENT: None

Motion unanimously carried:

CONSENT CALENDAR

9A. MOTION TO APPROVE THE READING BY TITLE OF ALL ORDINANCES AND RESOLUTIONS. SAID ORDINANCES AND RESOLUTIONS THAT APPEAR ON THE PUBLIC AGENDA SHALL BE READ BY TITLE ONLY AND FURTHER READING WAIVED

The City Council/Agency Board/Authority Board waived reading of Ordinances and Resolutions.

9B. APPROVAL OF WARRANTS

The City Council approved demand warrants dated May 17, 2024 – May 30, 2024, in the amount of \$672,171.72.

9C. APPROVAL OF MINUTES

The City Council/Successor Agency/Housing Authority approved Minutes of Joint Regular Meeting – June 11, 2024.

9D. PROFESSIONAL SERVICES AGREEMENTS TO PROVIDE ON-CALL CIVIL ENGINEERING SERVICES

On March 28, 2024, staff released a Request for Proposals (RFP) soliciting proposals to provide professional, on-call civil engineering services in accordance with the City's Purchasing and Contracting Guidelines. Staff has pre-qualified five firms and recommends entering into on-call services agreements for a term of three years in the amount of \$150,000, annually, with each of the pre-qualified firms. Costs associated with work by these firms will be negotiated on a case-by-case basis and funded by each project's approved budget.

- 1. The City Council declared this action to be categorically exempt under the California Environmental Quality Act, since the action herein does not constitute a "project" as defined by section 15378 of the CEQA guidelines; and
- 2. Awarded contracts for professional civil engineering services to Harris & Associates, Inc., RAK Development, Inc. DBA Kreuzer Consulting Group, Onward Engineering, Structural Engineering Center, Inc. DBA Professional Engineering Center, and RKA Consulting Group to provide on-call professional civil engineering services in the amount not-to-exceed \$450,000 or \$150,000 annually for a term of three years; and
- 3. Authorized the City Manager to bind the City of Stanton and Harris & Associates, Inc., RAK Development, Inc. DBA Kreuzer Consulting Group, Onward Engineering, Structural Engineering Center, Inc. DBA Professional Engineering Center, and RKA Consulting Group in contracts to provide the services.

9E. PROFESSIONAL SERVICES AGREEMENTS TO PROVIDE ON-CALL LAND SURVEYING SERVICES

On March 28, 2024, staff released a Request for Proposals (RFP) soliciting proposals to provide professional, on-call land surveying services in accordance with the City's Purchasing and Contracting Guidelines. Staff has pre-qualified four firms and recommends entering into on-call services agreements in the amount of \$50,000, annually, with each of the pre-qualified firms for a term of three years. Costs associated with work by these firms will be negotiated on a case-by-case basis and funded by each project's approved budget.

- 1. The City Council declared this action to be categorically exempt under the California Environmental Quality Act, since the action herein does not constitute a "project" as defined by section 15378 of the CEQA guidelines; and
- Awarded contracts for professional land surveying services to Coast Surveying, Inc., GIS Surveyors, Inc., D. Woolley and Associates, Inc, and IMEG Consultants Corp. to provide on-call professional land surveying services in the amount notto-exceed \$150,000 or \$50,000 annually for a term of three years; and
- Authorized the City Manager to bind the City of Stanton and Coast Surveying, Inc., GIS Surveyors, Inc., D. Woolley and Associates, Inc, and IMEG Consultants Corp. in contracts to provide the services.

9F. AMENDMENT OF THE LICENSE AGREEMENT WITH SOUTHERN CALIFORNIA EDISON FOR STANTON PARK TO ALLOW AMERICANS WITH DISABILITES ACT (ADA) ACCESSIBLE PARKING SPACES

The City of Stanton entered into a License Agreement with Southern California Edison (SCE) to continue the lease of Stanton Park (Assessor's Parcel Numbers 131-091-19 and 131-091-29) for use as community recreational and parkland purposes. The Agreement stipulates that any improvements on Stanton Park must be approved by Southern California Edison. There are two (2) existing ADA parking spaces at Stanton Park with no record of approval. As such, the Amendment formally permits the use of the two ADA parking spaces that are already installed on the property and reiterates no additional parking will be allowed to be installed without SCE consent.

- 1. The City Council declared this action to be categorically exempt under the California Environmental Quality Act, Section 15061(b)(3) as the activity is covered by the general rule that CEQA applies only to projects which have the potential for causing significant effect on the environment; and
- Approved the First Amendment to the License Agreement with SCE and allowed the City Attorney to make minor edits as necessary prior to the execution of the Amendment; and
- 3. Authorized the City Manager to execute the First Amendment to the License Agreement with SCE.

9G. APPROVE COOPERATIVE AGREEMENT BETWEEN THE CITY OF STANTON AND THE CITY OF GARDEN GROVE FOR THE FERN STREET REHABILITATION PROJECT (TASK CODE NO. 2025-103)

The City of Garden Grove has a residential street rehabilitation project that includes resurfacing Fern Street from Stanford Avenue to Garden Grove Boulevard. The westerly half of Fern Street is within City of Stanton City Limits. The City of Garden Grove offered to resurface the entirety of Fern Street as part of their project. As such, staff worked collaboratively with the City of Garden Grove to develop a cooperative agreement for the construction.

- 1. The City Council finds that that the project is categorically exempt under the California Environmental Quality Act ("CEQA"), Class 1, Section 15301(c) as repair, maintenance, and minor alteration of existing streets, sidewalks, gutters, and similar facilities; and
- 2. Approved the Cooperative Agreement between the City of Stanton and the City of Garden Grove to rehabilitate Fern Street; and
- 3. Authorized the City Manager to execute the Cooperative Agreement between the City of Stanton and the City of Garden Grove to rehabilitate Fern Street.

9H. RESOLUTION DIRECTING THE AUDITOR-CONTROLLER OF THE COUNTY OF ORANGE TO ADD THE PROTECTIVE SERVICES TAX TO THE TAX ROLL FOR FISCAL YEAR 2024/25

On August 6, 1985, the City of Stanton voters approved an initiative measure establishing a Protective Services Tax with a 2/3 majority vote. The proceeds from the Protective Services Tax are used for fire protection and suppression services provided by the City, which are contracted with the Orange County Fire Authority. Each year, the City Council must adopt a Resolution directing the Auditor-Controller to place this assessment on the property tax roll.

- 1. The City Council finds that this item is not subject to California Environmental Quality Act ("CEQA") pursuant to Sections 15060(c)(2) (the activity will not result in a direct or reasonably foreseeable indirect physical change in the environment) and 15060(c)(3) (the activity is not a project as defined in Section 15378(b)(4) of the CEQA Guidelines, California Code of Regulations, Title 14, Chapter 3, because it has no potential for resulting in physical change to the environment, directly, or indirectly); and
- 2. Adopted Resolution No. 2024-24, directing the Orange County Auditor-Controller to place the Protective Services Tax on the property tax roll for Fiscal Year 2024/25, entitled:

"A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF STANTON, CALIFORNIA, DIRECTING THE AUDITOR-CONTROLLER OF THE COUNTY OF ORANGE, CALIFORNIA, TO ADD THE PROTECTIVE SERVICES TAX TO THE TAX ROLL FOR FISCAL YEAR 2024/25".

9I. FIRST AMENDMENT TO THE PROFESSIONAL SERVICES AGREEMENT FOR INVESTMENT MANAGEMENT AND ADVISORY SERVICES (CHANDLER ASSET MANAGEMENT, INC.)

On June 14, 2022, the City entered into an agreement with Chandler Asset Management, Inc. ("Chandler") to provide investment management and advisory services to the City. The original term of the agreement was for two years and authorizes the City Manager to renew the agreement annually. Chandler began managing \$25 million of the City's investment portfolio in September 2022. Staff is requesting the term of the agreement be extended for an additional 3 years, resulting in a total term of 5 years, which is consistent with the term the Finance Department has for its other professional services. Therefore, staff requests that the City Council approve the proposed first amendment to extend the term of the agreement (Attachment A).

- 1. The City Council finds that this item is not subject to California Environmental Quality Act ("CEQA") pursuant to Section 15378(b)(5) (Organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment); and
- 2. Authorized the City Manager to execute the first amendment to the agreement with Chandler Asset Management.

9J. FOURTH AMENDMENT TO THE AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES WITH WILLDAN FINANCIAL SERVICES FOR THE PREPARATION OF AN OVERHEAD COST ALLOCATION PLAN AND COMPREHENSIVE USER FEE STUDY

On January 12, 2021, the City entered into an agreement with Willdan Financial Services for the preparation of an overhead cost allocation plan and comprehensive user fee study. On June 28, 2022, the City Council approved the first amendment to the agreement to extend the term of the agreement to June 30, 2023. On June 27, 2023, the City Council approved the second amendment to the agreement to extend the term of the agreement to June 30, 2024. On November 28, 2023, the City Council approved the third amendment to the agreement to modify the total compensation of this agreement to \$39,880. The project is in its final review stages but will not be completed prior to the expiration of the current agreement. Therefore, staff requests that the City Council approve the proposed fourth amendment to extend the term of the agreement to allow sufficient time for the study to be completed (Attachment A).

- 1. The City Council finds that this item is not subject to California Environmental Quality Act ("CEQA") pursuant to Section 15378(b)(5) (Organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment); and
- 2. Authorized the City Manager to execute the fourth amendment to the agreement with Willdan Financial Services to extend the term for the preparation of an overhead cost allocation plan and a comprehensive user fee study.

9K. AWARD OF CONTRACT TO INTERIOR DEMOLITION, INC. FOR THE 8930 PACIFIC AVENUE DEMOLITION AND ABATEMENT PROJECT IN THE INTEREST OF PUBLIC HEALTH, SAFETY, AND WELFARE IN THE AMOUNT OF \$96,000

One of the detached garages associated with the building located at 8930 Pacific Avenue was recently severely damaged by a fire started by transients, and the structure and adjacent garages have been red-tagged and must be demolished. The vacant 4-plex building located at 8930 Pacific Avenue is also recommended for demolition at this time due to concerns from residents, the property manager, and the City. The City's Purchasing and Contracting Guidelines allow for exceptions to

the standard procurement procedures when it is determined to be in the best interests of the City to preserve the public health, safety, and welfare of the community. As such, staff is recommending award of contract to Interior Demolition, Inc., which was the lowest responsible bidder in 2022, at the time of the last Tina Pacific demolition project.

- The City Council declared the work proposed under this scope increase to be categorically exempt under the California Environmental Quality Act (CEQA), Class 1, Section 15301I (3); and
- Authorized staff to exercise an exception to the standard procurement procedures in the best interests of the City to preserve the public health, safety, and welfare of the community; and
- 3. Awarded a construction contract to Interior Demolition, Inc., to provide professional demolition and abatement services in the amount of \$96,000; and
- 4. Authorized the City Manager to bind the City of Stanton and Interior Demolition, Inc. in a contract to provide the services; and
- 5. Authorized the City Manager to approve contract change orders with Interior Demolition, Inc., as needed and determined by City staff, for any contingencies up to 15% of the contract amount.

9L. LEASE AGREEMENT WITH WIRELESS CCTV, LLC FOR LEASE OF CAMERA TRAILERS AS PART OF THE SAFE STREETS TOGETHER CAMPAIGN UTILIZING COOPERATIVE PURCHASING

The City is launching its Safe Streets Together: United Against Exploitation campaign in July 2024. One of the impact areas the campaign will focus on is reducing the demand for prostitution and the illegal sale of sex, through the implementation of various strategies. Cameras can decrease the demand for prostitution and human trafficking by increasing the risk of detection and arrest for buyers of illegal sex. The presence of cameras provides heightened surveillance and accountability, discouraging individuals from engaging in or facilitating prostitution and human trafficking. Staff is requesting authorization to lease two solar camera trailers to support the demand reduction objectives utilizing cooperative purchasing and the City of Palmdale's contract.

 The City Council finds that this item is not subject to California Environmental Quality Act ("CEQA") pursuant to Sections 15378(b)(5)(Organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment); and

- 2. Authorized the City Manager to enter into a lease agreement with Wireless CCTV, LLC for two solar camera trailers for a rental term of 12 months and a monthly rate of \$3,100, for an annual rental amount of \$37,200; and
- 3. Authorized the City Manager to approve additional costs as needed and determined by City staff, for any contingencies up to 15% of the agreement amount.

END OF CONSENT CALENDAR

10. PUBLIC HEARINGS

10A. PUBLIC HEARING RELATIVE TO PLACING THE ANNUAL SEWER SERVICE CHARGE FOR SEWER SERVICES ON THE PROPERTY TAX ROLL FOR FISCAL YEAR 2024/25

On August 8, 2017, the City held a noticed public hearing in compliance with Proposition 218 and adopted the Annual Sewer Service Charges for Fiscal Years 2017/18 through 2022/23 with Ordinance No. 1068. The approved rates include a 3.5% increase annually for Fiscal Years 2018/19 through 2021/22. A new sewer service rate study has been on hold pending the completion of the City's Sewer Master Plan Update project. Therefore, staff is recommending *no change* to the Annual Sewer Service Charge collected for Fiscal Year 2024/25. The purpose of this noticed public hearing is to confirm the report prepared by the City's consultant, Harris & Associates, and to seek City Council approval to request the Orange County Auditor-Controller place the Annual Service Charge on the property tax roll for Fiscal Year 2024/25. The Sewer Service Charge Report ("Report") prepared by the Consultant identifies each parcel subject to the Annual Sewer Service Charge for Fiscal Year 2024/25 (Exhibit A of Attachment A).

Staff report by Ms. Michelle Bannigan, Finance Director.

The public hearing was opened.

No one appearing to speak, the public hearing was closed.

Motion/Second: Warren/Van

ROLL CALL VOTE: Council Member Taylor AYE

Council Member Torres AYE
Council Member Van AYE
Mayor Pro Tem Warren AYE
Mayor Shawver AYE

Motion unanimously carried:

- 1. The City Council finds that this item is not subject to California Environmental Quality Act ("CEQA") pursuant to Sections 15060(c)(2) (the activity will not result in a direct or reasonably foreseeable indirect physical change in the environment) and 15060(c)(3) (the activity is not a project as defined in Section 15378(b)(4) of the CEQA Guidelines, California Code of Regulations, Title 14, Chapter 3, because it has no potential for resulting in physical change to the environment, directly, or indirectly); and
- 2. Conducted a public hearing concerning the placement of the Annual Sewer Service Charge on the property tax roll for Fiscal Year 2024/25; and
- 3. Adopted Resolution No. 2024-25, directing the Orange County Auditor-Controller to place the Annual Sewer Service Charge on the property tax roll for Fiscal Year 2024/25, entitled:

"A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF STANTON, CALIFORNIA, ESTABLISHING RATES FOR THE ANNUAL SEWER SERVICE CHARGE FOR SEWER SERVICES FOR FISCAL YEAR 2024/25".

10B. PUBLIC HEARING RELATIVE TO PLACING THE ANNUAL LEVY OF ASSESSMENTS FOR THE INSTALLATION, MAINTENANCE, AND SERVICING OF PUBLIC LIGHTING FACILITIES AND MEDIAN ISLANDS WITHIN THE BOUNDARIES OF THE TERRITORY INCLUDED IN STANTON LIGHTING AND LANDSCAPING DISTRICT NO. 1 FOR FISCAL YEAR 2024/25 PURSUANT TO THE LANDSCAPING AND LIGHTING ACT OF 1972

On May 28, 2024, the City Council adopted Resolution No. 2024-14, approving the Engineer's Report, and Resolution No. 2024-15, declaring its intention to levy and collect the annual assessments for installation, maintenance and servicing of Stanton Lighting and Landscaping District No. 1 ("the District") for Fiscal Year 2024/25 pursuant to the Landscaping and Lighting Act of 1972. Resolution No. 2023-08 also set the date of the public hearing for this matter for June 25, 2024. Harris & Associates, the City's consultant, prepared the District's assessment roll for Fiscal Year 2024/25 (Exhibit A of Attachment A).

Staff report by Ms. Michelle Bannigan, Finance Director.

The public hearing was opened.

No one appearing to speak, the public hearing was closed.

Motion/Second: Shawver/Taylor

ROLL CALL VOTE: Council Member Taylor AYE

Council Member Torres AYE
Council Member Van AYE
Mayor Pro Tem Warren AYE
Mayor Shawver AYE

Motion unanimously carried:

- 1. The City Council finds that this item is not subject to California Environmental Quality Act ("CEQA") pursuant to Sections 15060(c)(2) (the activity will not result in a direct or reasonably foreseeable indirect physical change in the environment) and 15060(c)(3) (the activity is not a project as defined in Section 15378(b)(4) of the CEQA Guidelines, California Code of Regulations, Title 14, Chapter 3, because it has no potential for resulting in physical change to the environment, directly, or indirectly); and
- Conducted a public hearing concerning the extent of the District, the improvements, the proposed assessments, and all other matters pertaining hereto; and
- 3. Adopted Resolution No. 2024-26, confirming the assessments for installation, maintenance, and servicing of lighting and landscaping with the boundaries of the territory included in the District and directing the Orange County Auditor-Controller place the assessment on the property tax roll for Fiscal Year 2024/25, entitled:

"A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF STANTON, CALIFORNIA, CONFIRMING THE ASSESSMENTS FOR INSTALLATION, MAINTENANCE, AND SERVICING OF LIGHTING AND LANDSCAPING WITHIN THE BOUNDARIES OF THE TERRITORY INCLUDED IN THE STANTON LIGHTING AND LANDSCAPING DISTRICT NO. 1 FOR FISCAL YEAR 2024/25".

11. UNFINISHED BUSINESS None.

12. NEW BUSINESS None.

13. ORAL COMMUNICATIONS - PUBLIC

- Ms. Jane Doe, submitted an e-public comment reporting on an illegally operating Airbnb rental located on Cedar Avenue, Stanton.
- Mr. Dave Woolley, D. Woolley and Associates, Inc., introduced himself to the City Council and reported on their excitement in working with the City and further expressed his gratitude to City staff and Mr. Cesar Rangel, Public Works Director/City Engineer.
- 14. WRITTEN COMMUNICATIONS

None.

15. MAYOR/CHAIRMAN/COUNCIL/AGENCY/AUTHORITY INITIATED BUSINESS

15A. COMMITTEE REPORTS/COUNCIL/AGENCY/AUTHORITY ANNOUNCEMENTS

- Mayor Pro Tem Warren reported on her visit to the City's animal shelter services provider, WAGS Pet Adoption and requested that staff invite WAGS Pet Adoption to a City Council meeting for presentation and update on their current operations.
- Council Member Van reported on the Orange County Public Library's 2024
 Summer Reading Program "Read Renew Repeat" and further reported that the
 Orange County Public Libraries is offering a reading challenge, in-branch
 programming, grab and go craft kits, author events, reading lists, weekly
 scavenger hunts, and activities and encourages residents to visit the Stanton
 branch library to participate.

15B. COUNCIL/AGENCY/AUTHORITY INITIATED ITEMS FOR A FUTURE COUNCIL MEETING

Council Member Van requested to agendize for discussion proceeding with a nondisclosure agreement (NDA) with the Orange County Power Authority to proceed with conducting of a feasibility study at no cost to the City, no use of staff time, and no commitment to join.

15C. COUNCIL/AGENCY/AUTHORITY INITIATED ITEMS FOR A FUTURE STUDY SESSION

None.

15D. CITY COUNCIL INITIATED ITEM — DISCUSSION REGARDING REVISITATION / RETURN OF TALK ON THE BLOCK COMMUNITY MEETINGS

At the June 11, 2024, City Council meeting, Council Member Taylor requested that this item be agendized for discussion. Council Member Taylor is requesting to discuss revisitation/return of the City's Talk on the Block Community meetings.

Presentation by Council Member Taylor.

The City Council received consensus and directed staff to proceed with research and to bring this item back for City Council review at a future City Council meeting.

15E. CITY COUNCIL INITIATED ITEM — DISCUSSION REGARDING REVISITATION OF LOCAL PREFERENCE

At the June 11, 2024, City Council meeting, Mayor Pro Tem Warren requested that this item be agendized for discussion. Mayor Pro Tem Warren is requesting to discuss revisitation of local preference, in support local Stanton businesses.

Presentation by Mayor Pro Tem Warren.

The City Council received consensus and directed staff to proceed with research and to bring this item back for City Council review at a future City Council meeting.

16. ITEMS FROM CITY ATTORNEY/AGENCY COUNSEL/AUTHORITY COUNSEL

None.

17. ITEMS FROM CITY MANAGER/EXECUTIVE DIRECTOR

None.

17A. ORANGE COUNTY SHERIFF'S DEPARTMENT

At this time the Orange County Sheriff's Department will provide the City Council with an update on their current operations.

Captain Ryan C. Pierce provided the City Council with an update on their current operations.

Administrative Captain Chris Sobiesiak, Orange County Fire Authority (OCFA), provided the City Council with the OCFA's 2024, 4th of July holiday operations.

18.	ADJOURNMENT	Motion/Second: Shawver/ Motion carried at 8:28 p.m.
DAVI	D J. SHAWVER, MA	YOR
ATTE	EST:	
CITY	CLERK/SECRETAF	RY

Item: 9D

Click here to return to the agenda.

CITY OF STANTON REPORT TO THE CITY COUNCIL

TO: Honorable Mayor and Members of the City Council

DATE: July 9, 2024

SUBJECT: MAY 2024 INVESTMENT REPORT

REPORT IN BRIEF:

The Investment Report as of May 31, 2024, has been prepared in accordance with the City's Investment Policy and California Government Code Section 53646.

RECOMMENDED ACTIONS:

- 1. City Council find that this item is not subject to California Environmental Quality Act ("CEQA") pursuant to Sections 15378(b)(5) (Organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment); and
- 2. Receive and file the Investment Report for the month of May 2024.

BACKGROUND:

Changes in the City's cash and investment balances during the month of May are summarized below:

	Beginning Balance	Net Change	Ending Balance
Cash and Investment Accounts (Pooled-All Funds)	\$ 67,278,586.49	\$ 4,617,469.95	\$ 71,896,056.44
Cash (Non-Pooled)	4,578,113.15	143,799.72	4,721,912.87
Total Cash and Investments	\$ 71,856,699.64	\$ 4,761,269.67	\$ 76,617,969.31

Between April 30, 2024, and May 31, 2024, the City's total cash and investments increased by approximately \$4.8 million. During the month of May, the City received \$2.8 million for its semi-annual payment from the County of Orange for its property tax in lieu of vehicle license fees.

The City's cash and investment balances by fund type are presented in Attachment A. A summary of the City's investment portfolio is included as Attachment B. The detail of the City's investments by type that are managed by City staff are shown in Attachment C. The detail of investments by type that are managed by Chandler Asset Management, LLC

("Chandler"), of which staff determined provide a net advantage to the City, are shown in Attachment D.

ANALYSIS:

The monthly cash and investment report provides a summary of the cash and investment accounts held by the City as of the end of that month. In order to manage its cash and investments, the City combines cash resources from all funds into a single pool consisting of a variety of accounts and securities. The balance in the pooled cash account includes cash and certain liquid investments that are available to meet the City's current cash needs. Cash in excess of the City's current cash needs is invested in interest-bearing investments with various maturities.

As of May 31, 2024, the market value of the City's total investment portfolio was \$68.8 million, of which \$42.7 million (62%) was managed by City staff and \$26.1 million (38%) was managed by Chandler (Attachment B). Detailed information regarding the securities contained in the City's investment portfolio is provided in Attachments C and D. As of May 31, 2024, City investments consisted of the following:

	Maximum			
		Percentage of		
		Percentage of	Portfolio	
		Portfolio	Permitted by	
	Market Value as of	Invested by	Investment	
Investment Type	May 31, 2024	Type	Policy	In Compliance?
Local Agency Investment Fund (LAIF)	\$ 40,966,970.63	59.58%	100.00%	Yes
U.S. Treasury Notes	8,195,324.22	11.92%	100.00%	Yes
Corporate Notes	6,896,650.30	10.03%	30.00%	Yes
Federal Agency Securities	5,441,671.59	7.91%	100.00%	Yes
Negotiable Certificates of Deposit	1,235,455.92	1.80%	30.00%	Yes
Asset Backed Securities	1,874,310.52	2.73%	20.00%	Yes
Collateralized Mortgage Obligations	2,827,514.76	4.11%	20.00%	Yes
Municipal Bonds	453,798.70	0.66%	100.00%	Yes
Supranational	835,605.79	1.22%	30.00%	Yes
Money Market Fund/Cash	29,223.17	0.04%	20.00%	Yes
Total Investments	\$ 68,756,525.60	100.00%		

The City's investment portfolio is well-diversified with investments spread across ten different security types. Likewise, the average maturity of the City's portfolio (except for LAIF) is approximately 2.5 years, which is within the 3.5 years target in the City's investment policy.

FISCAL IMPACT:

All deposits and investments have been made in accordance with the City's Fiscal Year 2023/24 Investment Policy. The portfolio will allow the City to meet its expenditure requirements for the next six months. Staff remains confident that the investment portfolio is currently positioned to remain secure and sufficiently liquid.

ENVIRONMENTAL IMPACT:

None.

LEGAL REVIEW:

None.

PUBLIC NOTIFICATION:

Through the normal agenda posting process.

STRATEGIC PLAN OBJECTIVE:

Obj. No. 4: Ensure fiscal stability and efficiency in governance.

Prepared by: Michelle Bannigan, Finance Director **Approved by:** Hannah Shin-Heydorn, City Manager

Attachments:

- A. Cash and Investment Balances by Fund
- B. Investments Portfolio Summary
- C. Investment Portfolio Detail (Managed by City Staff)
- D. Investment Portfolio Detail (Managed by Chandler)

Click here to return to the agenda.

CITY OF STANTON CASH AND INVESTMENTS REPORT MONTH ENDED MAY 31, 2024

Fund/ Account								
No.	Fund/Account Name	Ве	ginning Balance	Increases		Decreases		nding Balance
101-various	General Fund	\$	36,247,489.83 \$	10,039,363.93	\$	(5,648,509.22)	\$	40.638.344.54
102-111101	General Fund (Transactions & Use Tax)	•	(261,106.71)	573,082.76	Ψ	(685,649.55)	Ψ	(373,673.50)
103-111101	PCTA Administration		(5,964.20)	1,696.90		(2,779.68)		(7,046.98)
104-111101	Public Benefit Fees		-	23,291.38		-		23,291.38
107-111101	Cannabis Community Benefit Fee		5,000.00	· -		_		5,000.00
210-111101	Certified Access Specialists (CASP) Program Fund		68,647.98	_		-		68,647.98
211-111101	Gas Tax Fund		2,357,501.69	78,437.46		(31,598.18)		2,404,340.97
215-111101	Road Maintenance and Rehabilitation act (RMRA) Fund		1,683,504.82	87,866.13		(129,893.63)		1,641,477.32
220-111101	Measure M Fund		648,241.82	116,805.13		-		765,046.95
221-111101	Community Development Block Grant-CV (CDBG-CV) Fund		(1,218.26)	-		-		(1,218.26)
222-111101	Community Development Block Grant Fund		221,134.68	_		(105.46)		221,029.22
223-111101	Protective Services Fund		-	12,793.15		(12,793.15)		-
224-111101	Lighting Maintenance 1919 Act Fund		1,138,693.98	311,258.15		(14,267.68)		1,435,684.45
225-111101	Lighting/Median Maintenance 1972 Act Fund		861,094.57	5,612.25		(36,720.65)		829,986.17
226-111101	Air Quality Improvement Fund		243,104.48	-		(116,718.74)		126,385.74
227-111101	Other Grants Fund		(265,332.85)	109,300.00		-		(156,032.85)
242-111101	Supplemental Law Enforcement Grant Fund		326,143.95	<u>-</u>		(13,333.34)		312,810.61
245-111101	Justice Assistance Grant (JAG) Grant Fund		(606.42)	68,126.75		(67,990.62)		(470.29)
250-111101	Families and Communities Together (FaCT) Grant Fund		(43,201.92)	39,333.11		(34,245.03)		(38,113.84)
251-111101	Senior Transportation Fund		102,433.27	7,701.75		(785.55)		109,349.47
261-111101	Street Impact Fees Fund		243,014.26	677.84		-		243,692.10
262-111101	Traffic Signal Impact Fee		30,324.33	151.21		-		30,475.54
263-111101	Community Center Impact Fees Fund		277,993.58	308.63		-		278,302.21
264-111101	Police Services Impact Fees Fund		251,328.20	278.43		-		251,606.63
271-111101	Public Safety Task Force Fund (City Funds)		56,280.63	-		(3,449.99)		52,830.64
280-111101	Stanton Central Park Maintenance Fund		21,222.47	5,397.91		(14,714.60)		11,905.78
285-various	Stanton Housing Authority Fund		9,613,744.86	467,298.03		(489,609.43)		9,591,433.46
305-111101	Capital Projects Fund		69,282.81	246,620.59		(283,431.33)		32,472.07
310-111101	Park and Recreation Facilities Fund		4,020,857.14	11,651.60		(4,849.43)		4,027,659.31
501-111101	Sewer Maintenance Fund		7,725,662.57	117,661.58		(108,634.94)		7,734,689.21
502-111101	Sewer Capital Improvement Fund		11,902.84	2,900.00		-		14,802.84
602-111101	Workers' Compensation Fund		857,668.74	5,922.24		(3,853.04)		859,737.94
603-111101	Liability Risk Management Fund		28,434.23	-		(447.20)		27,987.03
604-111101	Employee Benefits Fund		183,536.61	133,184.70		(147,303.70)		169,417.61
605-111101	Fleet Maintenance Fund		560,958.74	14,588.23		(13,155.75)		562,391.22
801-111101	Expendable Deposits Fund		813.77	1,000.00		-		1,813.77
	Total Pooled Cash and Investments ⁽¹⁾	\$	67,278,586.49 \$	12,482,309.84	\$	(7,864,839.89)	\$	71,896,056.44
	Less: Investments ⁽¹⁾	\$	(65,005,214.49) \$	(4,251,687.24)	\$	500,376.13	\$	(68,756,525.60)
	Cash - BMO Bank General Checking Account	\$	2,273,372.00 \$	8,230,622.60	\$	(7,364,463.76)	\$	3,139,530.84

CITY OF STANTON CASH AND INVESTMENTS REPORT MONTH ENDED MAY 31, 2024

Fund/ Account No.	t Fund/Account Name		Fund/Account Name Beginning Balance Increases		Increases	Decreases		Ending Balance	
	CASH-NON-POOLED								
xxx-111103	Payroll Account	\$	-	\$	276,269.12	\$	(276,269.12)	\$	-
101-111109	Flexible Spending/AFLAC		10,149.49		-		(2,674.43)		7,475.06
101-111505	Petty Cash		600.00		-		-		600.00
285-111403	Cash with Property Management Company (QMG)		34,985.94		29,603.58		(19,985.94)		44,603.58
604-111404	Cash with Fiscal Agent (PARS) (2)		4,532,377.72		139,102.72		(2,246.21)		4,669,234.23
	Total Cash-Non-Pooled	\$	4,578,113.15	\$	444,975.42	\$	(301,175.70)	\$	4,721,912.87
	INVESTMENTS								
	POOLED ALL FUNDS	\$	65,005,214.49	\$	4,251,687.24	\$	(500,376.13)	\$	68,756,525.60
	Total Investments (3)	\$	65,005,214.49	\$	4,251,687.24	\$	(500,376.13)	\$	68,756,525.60
	TOTAL CASH AND INVESTMENTS	\$	71,856,699.64	\$	12,927,285.26	\$	(8,166,015.59)	\$	76,617,969.31

Notes:

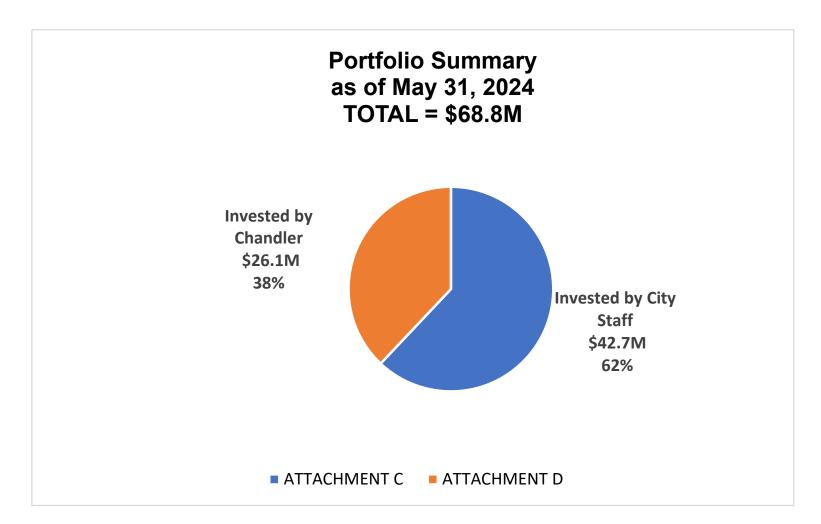
^{(1) -} Pooled cash includes: City's general checking and safekeeping accounts with BMO Harris Bank, the City's Local Agency Investment Fund (LAIF) account, the Housing Authority's LAIF account, and the City's investment portfolio account with Chandler Asset Management.

^{(2) -} The Public Agency Retirement Services (PARS) account is an irrevocable trust that can be used for pension and other post employment benefits only. This fund is excluded from the compliance requirements set forth in the City's investment policy.

^{(3) -} Additional information regarding the City's investments are included in Attachments B through D.

ATTACHMENT B

Click here to return to the agenda.



Attachment: C

Click here to return to the agenda.

City of Stanton
Portfolio Holdings
Investment Portfolio | by Security Sector
Report Format: By Transaction
Group By: Security Sector
Average By: Face Amount / Shares
Portfolio / Report Group: All Portfolios
As of 5/31/2024

Description	CUSIP/Ticker	Settlement Date	YTM @ Cost	Face Amount/Shares	Cost Value	Book Value	Market Value	Maturity Date	Days To Maturity	Accrued Interest	% of Portfolio
Certificate Of Deposit											
Evansville Teachers FCU IN 2.25 7/22/2024	299547AV1	7/22/2019	2.250	249,000.00	249,000.00	249,000.00	247,921.83	7/22/2024	52	138.14	0.58
First Tier Bank NE 1.95 8/23/2024	33766LAJ7	8/23/2019	1.950	249,000.00	249,000.00	249,000.00	247,057.80	8/23/2024	84	106.42	0.58
McGregor TX 2.3 6/28/2024	32112UDA6	7/12/2019	2.200	249,000.00	250,170.30	249,018.07	248,459.67	6/28/2024	28	47.07	0.58
Raymond James Bank FL 2 8/23/2024	75472RAE1	8/23/2019	2.000	247,000.00	247,000.00	247,000.00	245,078.34	8/23/2024	84	1,326.36	0.58
Washington Federal Bank WA 1.95 8/28/2024	938828BN9	8/28/2019	1.950	249,000.00	249,000.00	249,000.00	246,938.28	8/28/2024	89	39.91	0.58
Sub Total / Average Certificate Of Deposit			2.070	1,243,000.00	1,244,170.30	1,243,018.07	1,235,455.92		67	1,657.90	2.91
Local Government Investment Pool											
LAIF City LGIP	LAIFCITY0895	2/29/2020	4.332	31,604,005.81	31,604,005.81	31,604,005.81	31,603,730.41	N/A	1		74.07
LAIF Housing Authority LGIP	LAIFHA0004	2/29/2020	4.332	9,363,321.81	9,363,321.81	9,363,321.81	9,363,240.22	N/A	1		21.95
Sub Total / Average Local Government Investment Pool			4.332	40,967,327.62	40,967,327.62	40,967,327.62	40,966,970.63		1	0.00	96.02
Municipal											
Fort Bragg CA 1.871 8/1/2024	347028JZ6	9/18/2019	1.750	205,000.00	206,150.05	205,040.08	203,798.70	8/1/2024	62	1,278.52	0.48
Riverside Pension CA 2.75 6/1/2024	769036BD5	8/28/2019	2.030	250,000.00	258,120.00	250,004.67	250,000.00	6/1/2024	1	3,437.50	0.59
Sub Total / Average Municipal			1.904	455,000.00	464,270.05	455,044.75	453,798.70		28	4,716.02	1.07
Total / Average		· ——	4.240	42,665,327.62	42,675,767.97	42,665,390.44	42,656,225.25		3	6,373.92	100



ATTACHMENT D Page 1 of 9

Click here to return to the agenda.

MONTHLY ACCOUNT STATEMENT

City of Stanton | Account #10991 | As of May 31, 2024

CHANDLER ASSET MANAGEMENT | chandlerasset.com

Chandler Team:

For questions about your account, please call (800) 317-4747, or contact clientservice@chandlerasset.com

Custodian:

US Bank

PORTFOLIO SUMMARY



City of Stanton | Account #10991 | As of May 31, 2024

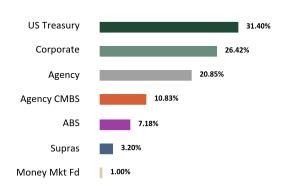
2.57
3.72%
4.29%
5.03%
AA
3.00
2.89

Account Summary

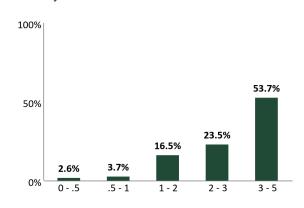
	Beg. Values as of 05/01/2024	End Values as of 05/31/2024
Market Value	25,901,069.03	26,100,300.35
Accrued Interest	187,218.51	218,710.96
Total Market Value	26,088,287.54	26,319,011.31
Income Earned	122,946.95	81,489.37
Cont/WD	0.00	0.00
Par	26,789,555.39	26,835,354.49
Book Value	26,192,754.66	26,244,829.86
Cost Value	26,192,754.66	26,244,829.86

Top Issuers	
United States	31.40%
Farm Credit System	12.96%
FHLMC	10.83%
Federal Home Loan Banks	5.56%
FNMA	2.33%
American Express Company	1.74%
JPMorgan Chase & Co.	1.65%
Bank of America Corporation	1.64%

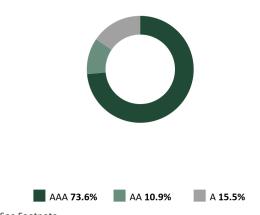
Sector Allocation



Maturity Distribution



Credit Quality



*See Footnote

Performance Review

Total Rate of Return	1M	3M	YTD	1YR	2YRS	3YRS	5YRS	10YRS	Since Inception (12/01/22)
City of Stanton	0.89%	0.62%	0.41%	3.41%					3.58%
Benchmark Return*	0.88%	0.48%	0.12%	2.70%					2.98%

^{*}Periods over 1 year are annualized.

RECONCILIATION SUMMARY



City of Stanton | Account #10991 | As of May 31, 2024

Maturities / Calls	
Month to Date	0.00
Fiscal Year to Date	(700,000.00)
Principal Paydowns	
Month to Date	(34,492.41)
Fiscal Year to Date	(1,256,266.82)
Purchases	
Month to Date	1,664,679.46
Fiscal Year to Date	15,696,124.53

Accrual Activity Summary

<u> </u>		
	Month to Date	Fiscal Year to Date (07/01/2023)
Beginning Book Value	26,192,754.66	25,439,791.50
Maturities/Calls	0.00	(700,000.00)
Principal Paydowns	(34,492.41)	(1,256,266.82)
Purchases	1,664,679.46	15,696,124.53
Sales	(1,349,919.43)	(12,760,350.59)
Change in Cash, Payables, Receivables	(232,209.55)	(232,011.65)
Amortization/Accretion	0.00	0.00
Realized Gain (Loss)	4,017.13	57,542.89
Ending Book Value	26,244,829.86	26,244,829.86

Sales Fair Market Activity Summary

(1,349,919.43) (12,760,350.59)

42,548.55

759,314.95

	Month to Date	Fiscal Year to Date (07/01/2023)
Beginning Market Value	25,901,069.03	25,168,129.35
Maturities/Calls	0.00	(700,000.00)
Principal Paydowns	(34,492.41)	(1,256,266.82)
Purchases	1,664,679.46	15,696,124.53
Sales	(1,349,919.43)	(12,760,350.59)
Change in Cash, Payables, Receivables	(232,209.55)	(232,011.65)
Amortization/Accretion	0.00	0.00
Change in Net Unrealized Gain (Loss)	147,156.12	127,132.64
Realized Gain (Loss)	4,017.13	57,542.89
Ending Market Value	26,100,300.35	26,100,300.35

Month to Date

Month to Date

Fiscal Year to Date

Fiscal Year to Date

Interest Received

Execution Time: 06/04/2024 09:07:03 PM



Cusip	Security Description	Par Value/ Units	Purchase Date Purchase Yield	Cost Value Book Value	Mkt Price Mkt YTM	Market Value Accrued Int.	% of Port. Gain/Loss	Moody's/ S&P Fitch	Maturity Duration
ABS									
02582JJT8	AMXCA 2022-2 A 05/17/2027	350,000.00	09/13/2022 4.14%	343,382.81 343,382.81	98.05 5.54%	343,157.85 527.33	1.31% (224.96)	NA/AAA AAA	0.96 0.92
43815PAC3	HAROT 2022-2 A3 3.73 07/20/2026	335,886.66	09/21/2022 4.08%	331,688.07 331,688.07	98.77 5.61%	331,743.43 452.42	1.27% 55.35	NA/AAA AAA	2.14 0.66
89238FAD5	TAOT 2022-B A3 2.93 09/15/2026	264,193.51	09/13/2022 3.53%	258,311.08 258,311.08	98.33 5.64%	259,771.04 344.04	1.00% 1,459.97	Aaa/AAA NA	2.29 0.62
47800BAC2	JDOT 2022-C A3 5.09 06/15/2027	95,000.00	10/12/2022 5.09%	94,992.63 94,992.63	99.59 5.64%	94,605.98 214.91	0.36%	Aaa/NA AAA	3.04 0.82
58770JAD6	MBALT 2024-A A3 5.32 01/18/2028	70,000.00	05/17/2024 5.32%	69,991.81 69,991.81	99.98 5.38%	69,983.30 82.76	0.27% (8.51)	Aaa/NA AAA	3.64 2.07
47787CAC7	JDOT 2023-C A3 5.48 05/15/2028	300,000.00	12/05/2023 5.15%	303,117.19 303,117.19	100.15 5.43%	300,464.85 730.67	1.15% (2,652.34)	Aaa/NA AAA	3.96 1.47
161571HT4	CHAIT 2023-1 A 5.16 09/15/2028	280,000.00	09/07/2023 5.17%	279,922.38 279,922.38	99.84 5.29%	279,541.44 642.13	1.07% (380.94)	NR/AAA AAA	4.29 2.11
448973AD9	HART 2024-A A3 4.99 02/15/2029	85,000.00	03/11/2024 5.00%	84,981.26 84,981.26	99.44 5.28%	84,519.89 188.51	0.32% (461.37)	NA/AAA AAA	4.71 2.29
02582JKH2	AMXCA 2024-1 A 5.23 04/16/2029	110,000.00	04/16/2024 5.23%	109,977.45 109,977.45	100.48 5.10%	110,522.74 255.69	0.42% 545.29	NA/AAA AAA	4.88 2.60
Total ABS		1,890,080.17	4.56%	1,876,364.68 1,876,364.68	99.17 5.47%	1,874,310.52 3,438.46	7.18% (2,054.16)	Aaa/AAA AAA	2.93 1.30
4.051101/									
AGENCY 3133ENP79	FEDERAL FARM CREDIT BANKS FUNDING CORP 4.25 09/26/2024	650,000.00	09/22/2022 4.25%	649,948.00 649,948.00	99.66 5.28%	647,804.75 4,987.85	2.48% (2,143.25)	Aaa/AA+ AA+	0.32 0.31
3133ENP95	FEDERAL FARM CREDIT BANKS FUNDING CORP 4.25 09/30/2025	650,000.00	09/23/2022 4.31%	648,875.50 648,875.50	98.97 5.06%	643,281.31 4,680.90	2.46% (5,594.19)	Aaa/AA+ AA+	1.33 1.27
3135G0Q22	FEDERAL NATIONAL MORTGAGE ASSOCIATION 1.875 09/24/2026	650,000.00	09/14/2022 3.73%	605,208.50 605,208.50	93.60 4.83%	608,397.25 2,268.23	2.33% 3,188.75	Aaa/AA+ AA+	2.32 2.21
3133ERFJ5	FEDERAL FARM CREDIT BANKS FUNDING CORP 4.5 05/20/2027	450,000.00	05/23/2024 4.80%	446,330.25 446,330.25	99.35 4.74%	447,058.17 618.75	1.71% 727.92	Aaa/AA+ AA+	2.97 2.74
3130ATS57	FEDERAL HOME LOAN BANKS 4.5 03/10/2028	500,000.00	03/22/2023 4.04%	510,315.00 510,315.00	99.97 4.51%	499,848.79 5,062.50	1.92% (10,466.21)	Aaa/AA+ AA+	3.78 3.40
3133EPGW9	FEDERAL FARM CREDIT BANKS FUNDING CORP 3.875 04/25/2028	250,000.00	04/24/2023 3.76%	251,255.00 251,255.00	97.45 4.59%	243,636.90 968.75	0.93% (7,618.10)	Aaa/AA+ AA+	3.90 3.56



City of Stanton | Account #10991 | As of May 31, 2024

Cusip	Security Description	Par Value/ Units	Purchase Date Purchase Yield	Cost Value Book Value	Mkt Price Mkt YTM	Market Value Accrued Int.	% of Port. Gain/Loss	Moody's/ S&P Fitch	Maturity Duration
3130AWTR1	FEDERAL HOME LOAN BANKS 4.375 09/08/2028	300,000.00	09/13/2023 4.48%	298,555.11 298,555.11	99.42 4.52%	298,257.72 3,026.04	1.14% (297.39)	Aaa/AA+ AA+	4.27 3.82
3133EPWK7	FEDERAL FARM CREDIT BANKS FUNDING CORP 4.5 09/22/2028	500,000.00	09/25/2023 4.67%	496,185.00 496,185.00	99.67 4.58%	498,348.82 4,312.50	1.91% 2,163.82	Aaa/AA+ AA+	4.31 3.84
3130AXQK7	FEDERAL HOME LOAN BANKS 4.75 12/08/2028	650,000.00	12/07/2023 4.18%	666,646.50 666,646.50	100.52 4.62%	653,384.49 17,838.89	2.50% (13,262.01)	Aaa/AA+ AA+	4.52 3.92
3133ERAK7	FEDERAL FARM CREDIT BANKS FUNDING CORP 4.375 04/10/2029	400,000.00	04/08/2024 4.48%	398,068.00 398,068.00	99.41 4.51%	397,657.55 2,479.17	1.52% (410.45)	Aaa/AA+ AA+	4.86 4.30
3133ERDH1	FEDERAL FARM CREDIT BANKS FUNDING CORP 4.75 04/30/2029	500,000.00	05/08/2024 4.55%	504,355.00 504,355.00	100.80 4.57%	503,995.85 2,045.14	1.93% (359.16)	Aaa/AA+ AA+	4.91 4.33
Total Agency		5,500,000.00	4.29%	5,475,741.86 5,475,741.86	98.98 4.75%	5,441,671.59 48,288.72	20.85% (34,070.27)	Aaa/AA+ AA+	3.20 2.88
AGENCY CMBS									
3137BN6G4	FHMS K-053 A2 2.995 12/25/2025	350,000.00	09/16/2022 4.05%	338,064.45 338,064.45	96.76 5.29%	338,648.00 873.54	1.30% 583.55	Aaa/AA+ AAA	1.57 1.35
3137BTUM1	FHMS K-061 A2 3.347 11/25/2026	346,051.15	09/22/2022 4.23%	333,628.46 333,628.46	95.72 5.24%	331,246.88 965.19	1.27% (2,381.58)	Aaa/AA+ AAA	2.49 2.20
3137BVZ82	FHMS K-063 A2 3.43 01/25/2027	350,000.00	09/13/2022 3.91%	342,412.11 342,412.11	96.03 5.07%	336,120.51 1,000.42	1.29% (6,291.61)	Aaa/AA+ AAA	2.65 2.34
3137F2LJ3	FHMS K-066 A2 3.117 06/25/2027	350,000.00	09/13/2022 3.88%	337,640.63 337,640.63	94.79 5.01%	331,754.05 909.13	1.27% (5,886.59)	Aaa/AA+ AAA	3.07 2.73
3137FAWS3	FHMS K-067 A2 3.194 07/25/2027	310,000.00	09/22/2022 4.19%	295,856.25 295,856.25	94.77 4.99%	293,788.09 825.12	1.13% (2,068.17)	Aaa/AA+ AA+	3.15 2.87
3137FBU79	FHMS K-069 A2 3.187 09/25/2027	500,000.00	05/18/2023 4.13%	480,292.97 480,292.97	94.66 4.97%	473,279.65 1,327.92	1.81% (7,013.32)	Aaa/AAA AA+	3.32 2.96
3137FG6X8	FHMS K-077 A2 3.85 05/25/2028	510,000.00	05/24/2023 4.20%	500,636.72 500,636.72	96.01 4.95%	489,637.28 1,636.25	1.88% (10,999.44)	Aaa/AA+ AAA	3.99 3.53
3137FLYV0	FHMS K-092 A2 3.298 04/25/2029	250,000.00	05/30/2024 4.85%	232,578.13 232,578.13	93.22 4.87%	233,040.33 68.71	0.89% 462.20	Aaa/AA+ AAA	4.90 4.35
Total Agency CMBS		2,966,051.15	4.15%	2,861,109.72 2,861,109.72	95.34 5.05%	2,827,514.76 7,606.27	10.83% (33,594.96)	Aaa/AA+ AAA	3.13 2.78

CASH

Execution Time: 06/04/2024 09:07:03 PM



Cusip	Security Description	Par Value/ Units	Purchase Date Purchase Yield	Cost Value Book Value	Mkt Price Mkt YTM	Market Value Accrued Int.	% of Port. Gain/Loss	Moody's/ S&P Fitch	Maturity Duration
CCYUSD	Payable	(232,646.84)		(232,646.84)	1.00	(232,646.84)	(0.89%)	Aaa/AAA	0.00
	- ayabic	(232,010.01)	0.00%	(232,646.84)	0.00%	0.00	0.00	AAA	0.00
CCYUSD	Receivable	1,557.03		1,557.03	1.00	1,557.03	0.01%	Aaa/AAA	0.00
			0.00%	1,557.03	0.00%	0.00	0.00	AAA	0.00
		((231,089.81)	1.00	(231,089.81)	(0.89%)	Aaa/AAA	0.00
Total Cash		(231,089.81)	0.00%	(231,089.81)	0.00%	0.00	0.00	AAA	0.00
CORPORATE									
000542000	CHARLES SCHWAB CORP 4.2	350,000,00	09/16/2022	249,015.00	98.92	247,290.61	0.95%	A2/A-	0.81
808513BB0	03/24/2025	250,000.00	4.37%	249,015.00	5.57%	1,954.17	(1,724.40)	A	0.78
7F.C1.00 AV.C	REALTY INCOME CORP 3.875	350,000,00	09/13/2022	246,425.00	98.56	246,408.81	0.94%	A3/A-	0.87
756109AV6	04/15/2025	250,000.00	4.47%	246,425.00	5.58%	1,237.85	(16.19)	WR	0.84
14913R2V8	CATERPILLAR FINANCIAL	125,000.00	09/21/2022	121,940.00	98.24	122,800.64	0.47%	A2/A	0.95
14913KZV8	SERVICES CORP 3.4 05/13/2025	125,000.00	4.39%	121,940.00	5.32%	212.50	860.64	A+	0.92
06368D3S1	BANK OF MONTREAL 3.7	350,000.00	09/13/2022	342,912.50	98.17	343,595.19	1.32%	A2/A-	1.02
	06/07/2025	330,000.00	4.50%	342,912.50	5.58%	6,259.17	682.69	AA-	0.96
	NATIONAL RURAL UTILITIES		09/19/2022	243,805.00	97.88	244,712.36	0.94%	A2/A-	1.04
63743HFE7	COOPERATIVE FINANCE CORP	250,000.00	4.42%	243,805.00	5.57%	3,977.08	907.36	Α	0.99
	3.45 06/15/2025		/ /						
91324PCP5	UNITEDHEALTH GROUP INC 3.75	125,000.00	09/21/2022	122,981.25	98.36	122,953.99	0.47%	A2/A+	1.12
	07/15/2025		4.36%	122,981.25	5.27%	1,770.83	(27.26)	Α	1.07
89236TKF1	TOYOTA MOTOR CREDIT CORP 3.65 08/18/2025	350,000.00	09/13/2022 4.23%	344,498.00 344,498.00	98.06 5.32%	343,214.95 3,655.07	1.31% (1,283.05)	A1/A+ A+	1.22 1.16
	JOHN DEERE CAPITAL CORP 4.05		09/21/2022	123,933.75	98.58	123,227.78	0.47%	A1/A	1.27
24422EWJ4	09/08/2025	125,000.00	4.36%	123,933.75	5.21%	1,167.19	(705.97)	A1/A A+	1.21
			02/13/2023	64,962.30	99.23	64,497.19	0.25%	A1/A+	1.71
713448FQ6	PEPSICO INC 4.55 02/13/2026	65,000.00	4.57%	64,962.30	5.03%	887.25	(465.11)	NA	1.59
	JPMORGAN CHASE & CO 4.08		09/13/2022	195,980.00	98.54	197,081.21	0.76%	A1/A-	1.90
46647PCZ7	04/26/2026	200,000.00	4.57%	195,980.00	6.24%	793.33	1,101.21	AA-	0.87
C4747VETO	MORGAN STANLEY 4.679	200,000,00	09/13/2022	199,302.00	98.88	197,769.62	0.76%	A1/A-	2.13
61747YET8	07/17/2026	200,000.00	4.61%	199,302.00	6.32%	3,483.26	(1,532.38)	A+	1.06
060516145	BANK OF AMERICA CORP 4.827	200,000,00	09/13/2022	199,336.00	99.01	198,022.34	0.76%	A1/A-	2.14
06051GLA5	07/22/2026	200,000.00	4.73%	199,336.00	6.36%	3,459.35	(1,313.66)	AA-	1.08
06406RBJ5	BANK OF NEW YORK MELLON	350,000.00		348,501.00	98.82	345,869.34	1.33%	A1/A	2.15
	CORP 4.414 07/24/2026	330,000.00	4.35%	348,501.00	6.04%	5,450.06	(2,631.67)	AA-	1.09



Cusip	Security Description	Par Value/ Units	Purchase Date Purchase Yield	Cost Value Book Value	Mkt Price Mkt YTM	Market Value Accrued Int.	% of Port. Gain/Loss	Moody's/ S&P Fitch	Maturity Duration
74340XBK6	PROLOGIS LP 3.25 10/01/2026	250,000.00	09/14/2022 4.30%	240,397.50 240,397.50	95.57 5.29%	238,932.57 1,354.17	0.92% (1,464.93)	A3/A WR	2.34 2.19
26442CAS3	DUKE ENERGY CAROLINAS LLC 2.95 12/01/2026	250,000.00	09/16/2022 4.31%	237,035.00 237,035.00	94.94 5.13%	237,347.79 3,687.50	0.91% 312.79	Aa3/A WR	2.50
857477CL5	STATE STREET CORP 4.993 03/18/2027	300,000.00	03/13/2024 4.99%	300,000.00 300,000.00	99.81 5.06%	299,431.55 3,037.41	1.15% (568.45)	A1/A AA-	2.80 2.56
46647PCB0	JPMORGAN CHASE & CO 1.578 04/22/2027	250,000.00	09/15/2022 4.95%	221,377.50 221,377.50	92.99 5.78%	232,468.92 427.38	0.89% 11,091.42	A1/A- AA-	2.89 1.82
91324PEG3	UNITEDHEALTH GROUP INC 3.7 05/15/2027	250,000.00	09/13/2022 4.21%	244,607.50 244,607.50	96.53 4.98%	241,312.54 411.11	0.92% (3,294.96)	A2/A+ A	2.96 2.75
89115A2C5	TORONTO-DOMINION BANK 4.108 06/08/2027	200,000.00	09/13/2022 4.73%	194,794.00 194,794.00	96.89 5.23%	193,786.30 3,948.24	0.74% (1,007.70)	A1/A NA	3.02 2.74
61747YEC5	MORGAN STANLEY 1.512 07/20/2027	250,000.00	09/15/2022 4.69%	219,305.00 219,305.00	92.05 5.73%	230,134.10 1,375.50	0.88% 10,829.10	A1/A- A+	3.14 2.04
06051GJS9	BANK OF AMERICA CORP 1.734 07/22/2027	250,000.00	09/15/2022 4.86%	219,722.50 219,722.50	92.34 5.81%	230,861.27 1,553.38	0.88% 11,138.77	A1/A- AA-	3.14 2.04
78016FZS6	ROYAL BANK OF CANADA 4.24 08/03/2027	200,000.00	09/13/2022 4.73%	195,794.00 195,794.00	97.38 5.15%	194,751.43 2,779.56	0.75% (1,042.57)	A1/A AA-	3.18 2.88
14913R3A3	CATERPILLAR FINANCIAL SERVICES CORP 3.6 08/12/2027	250,000.00	09/13/2022 4.27%	242,635.00 242,635.00	95.89 5.00%	239,733.65 2,725.00	0.92% (2,901.35)	A2/A A+	3.20 2.94
023135BC9	AMAZON.COM INC 3.15 08/22/2027	250,000.00	09/14/2022 4.17%	238,730.00 238,730.00	94.78 4.92%	236,939.66 2,165.63	0.91% (1,790.35)	A1/AA AA-	3.23 2.99
24422EWK1	JOHN DEERE CAPITAL CORP 4.15 09/15/2027	250,000.00	09/13/2022 4.29%	248,480.00 248,480.00	97.62 4.94%	244,040.84 2,190.28	0.94% (4,439.16)	A1/A A+	3.29 3.01
74456QBU9	PUBLIC SERVICE ELECTRIC AND GAS CO 3.7 05/01/2028	300,000.00	09/06/2023 5.10%	282,837.00 282,837.00	95.25 5.05%	285,747.08 925.00	1.09% 2,910.08	A1/A WR	3.92 3.57
58933YBH7	MERCK & CO INC 4.05 05/17/2028	300,000.00	4.08%	299,617.50 299,617.50	97.45 4.76%	292,352.44 472.50	1.12% (7,265.06)	A1/A+ NA	3.96 3.60
89115A2U5	TORONTO-DOMINION BANK 5.523 07/17/2028	200,000.00	12/18/2023 4.89%	205,150.00 205,150.00	100.89 5.28%	201,773.54 4,111.57	0.77% (3,376.46)	A1/A AA-	4.13 3.58
69371RS80	PACCAR FINANCIAL CORP 4.6 01/31/2029	365,000.00	01/24/2024 4.64%	364,405.05 364,405.05	98.64 4.93%	360,023.86 5,643.31	1.38% (4,381.19)	A1/A+ NA	4.67 4.09
17275RBR2	CISCO SYSTEMS INC 4.85 02/26/2029	140,000.00	02/21/2024 4.86%	139,951.00 139,951.00	99.69 4.92%	139,568.75 1,791.81	0.53% (382.25)	A1/AA- NA	4.74 4.13
Total Corporate		7,095,000.00	4.52%	6,898,430.35 6,898,430.35	97.25 5.38%	6,896,650.30 72,906.42	26.42% (1,780.05)	A1/A A+	2.57 2.14

Execution Time: 06/04/2024 09:07:03 PM



Cusip	Security Description	Par Value/ Units	Purchase Date Purchase Yield	Cost Value Book Value	Mkt Price Mkt YTM	Market Value Accrued Int.	% of Port. Gain/Loss	Moody's/ S&P Fitch	Maturity Duration
MONEY MARKE	т								
31846V203	FIRST AMER:GVT OBLG Y	260,312.98	 4.92%	260,312.98 260,312.98	1.00 4.92%	260,312.98 0.00	1.00% 0.00	Aaa/ AAAm AAA	0.00
Total Money Market Fund		260,312.98	4.92%	260,312.98 260,312.98	1.00 4.92%	260,312.98 0.00	1.00% 0.00	Aaa/ AAAm AAA	0.00 0.00
SUPRANATIONA	ıl								
459058KT9	INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPM 3.5 07/12/2028	225,000.00	08/17/2023 4.55%	214,688.25 214,688.25	95.71 4.66%	215,352.88 3,040.63	0.83% 664.63	Aaa/AAA NA	4.11 3.72
45950KDD9	INTERNATIONAL FINANCE CORP 4.5 07/13/2028	230,000.00	07/06/2023 4.53%	229,744.70 229,744.70	99.40 4.66%	228,623.85 3,967.50	0.88% (1,120.85)	Aaa/AAA NA	4.12 3.65
4581X0EN4	INTER-AMERICAN DEVELOPMENT BANK 4.125 02/15/2029	400,000.00	03/14/2024 4.39%	395,324.00 395,324.00	97.91 4.62%	391,629.06 5,545.83	1.50% (3,694.94)	Aaa/AAA NA	4.71 4.17
Total Supranational		855,000.00	4.47%	839,756.95 839,756.95	97.75 4.64%	835,605.79 12,553.96	3.20% (4,151.16)	Aaa/AAA NA	4.40 3.91
US TREASURY									
91282CFE6	UNITED STATES TREASURY 3.125 08/15/2025	650,000.00	09/13/2022 3.75%	638,802.74 638,802.74	97.70 5.11%	635,044.92 5,970.98	2.43% (3,757.82)	Aaa/AA+ AA+	1.21 1.16
91282CFK2	UNITED STATES TREASURY 3.5 09/15/2025	650,000.00	09/19/2022 3.90%	642,712.89 642,712.89	98.03 5.09%	637,177.74 4,822.01	2.44% (5,535.15)	Aaa/AA+ AA+	1.29 1.23
9128286L9	UNITED STATES TREASURY 2.25 03/31/2026	650,000.00	09/14/2022 3.75%	617,880.86 617,880.86	95.39 4.91%	620,064.45 2,477.46	2.38% 2,183.59	Aaa/AA+ AA+	1.83 1.76
9128287B0	UNITED STATES TREASURY 1.875 06/30/2026	650,000.00	09/15/2022 3.78%	606,632.81 606,632.81	94.20 4.84%	612,269.53 5,122.77	2.35% 5,636.72	Aaa/AA+ AA+	2.08 1.99
9128282A7	UNITED STATES TREASURY 1.5 08/15/2026	650,000.00	09/13/2022 3.72%	597,923.83 597,923.83	93.14 4.81%	605,388.67 2,866.07	2.32% 7,464.84	Aaa/AA+ AA+	2.21
91282CEF4	UNITED STATES TREASURY 2.5 03/31/2027	650,000.00	09/14/2022 3.66%	618,591.80 618,591.80	94.27 4.68%	612,751.95	2.35% (5,839.85)	Aaa/AA+ AA+	2.83
	, - , -			,		.,	(-,)	•	



Cusip	Security Description	Par Value/ Units	Purchase Date Purchase Yield	Cost Value Book Value	Mkt Price Mkt YTM	Market Value Accrued Int.	% of Port. Gain/Loss	Moody's/ S&P Fitch	Maturity Duration
91282CFH9	UNITED STATES TREASURY 3.125 08/31/2027	650,000.00	09/13/2022 3.57%	636,822.26 636,822.26	95.46 4.64%	620,496.10 5,133.32	2.38% (16,326.16)	Aaa/AA+ AA+	3.25 3.02
91282CGC9	UNITED STATES TREASURY 3.875 12/31/2027	350,000.00	01/24/2023 3.59%	354,470.70 354,470.70	97.61 4.61%	341,619.14 5,700.72	1.31% (12,851.56)	Aaa/AA+ AA+	3.59 3.25
91282CGH8	UNITED STATES TREASURY 3.5 01/31/2028	500,000.00	02/22/2023 4.12%	486,269.53 486,269.53	96.32 4.60%	481,601.56 5,865.38	1.85% (4,667.97)	Aaa/AA+ AA+	3.67 3.35
91282CGT2	UNITED STATES TREASURY 3.625 03/31/2028	350,000.00	04/24/2023 3.61%	350,259.77 350,259.77	96.65 4.59%	338,283.20 2,149.25	1.30% (11,976.57)	Aaa/AA+ AA+	3.84 3.51
91282CHE4	UNITED STATES TREASURY 3.625 05/31/2028	500,000.00	06/22/2023 4.02%	491,308.59 491,308.59	96.59 4.57%	482,929.69 49.52	1.85% (8,378.90)	Aaa/AA+ AA+	4.00 3.67
91282CHK0	UNITED STATES TREASURY 4.0 06/30/2028	500,000.00	09/20/2023 4.51%	489,179.69 489,179.69	97.91 4.56%	489,570.31 8,406.59	1.88% 390.62	Aaa/AA+ AA+	4.08 3.66
91282CHQ7	UNITED STATES TREASURY 4.125 07/31/2028	350,000.00	08/24/2023 4.39%	345,953.13 345,953.13	98.36 4.56%	344,271.48 4,838.94	1.32% (1,681.65)	Aaa/AA+ AA+	4.17 3.73
91282CJA0	UNITED STATES TREASURY 4.625 09/30/2028	350,000.00	10/18/2023 4.89%	345,912.11 345,912.11	100.27 4.55%	350,943.36 2,742.14	1.34% 5,031.25	Aaa/AA+ AA+	4.33 3.86
91282CJR3	UNITED STATES TREASURY 3.75 12/31/2028	400,000.00	01/22/2024 4.00%	395,468.75 395,468.75	96.79 4.53%	387,156.25 6,304.95	1.48% (8,312.50)	Aaa/AA+ AA+	4.59 4.09
91282CJW2	UNITED STATES TREASURY 4.0 01/31/2029	650,000.00	02/12/2024 4.14%	646,013.67 646,013.67	97.81 4.52%	635,755.86 8,714.29	2.44% (10,257.81)	Aaa/AA+ AA+	4.67 4.15
Total US Treasury		8,500,000.00	3.93%	8,264,203.13 8,264,203.13	96.45 4.73%	8,195,324.22 73,917.13	31.40% (68,878.91)	Aaa/AA+ AA+	3.05 2.80
Total Portfolio		26,835,354.49	4.29%	26,244,829.86 26,244,829.86	97.20 5.03%	26,100,300.35 218,710.96	100.00% (144,529.51)	Aa2/AA- AA	3.00 2.57
Total Market Value + Accrued						26,319,011.31			

Item: 9E

Click here to return to the agenda.

CITY OF STANTON

REPORT TO THE SUCCESSOR AGENCY TO THE STANTON REDEVELOPMENT AGENCY

TO: Honorable Chairman and Members of the Successor Agency

DATE: July 9, 2024

SUBJECT: MAY 2024 INVESTMENT REPORT (SUCCESSOR AGENCY)

REPORT IN BRIEF:

The Investment Report as of May 31, 2024, has been prepared in accordance with the City's Investment Policy and California Government Code Section 53646.

RECOMMENDED ACTIONS:

- Successor Agency find that this item is not subject to California Environmental Quality Act ("CEQA") pursuant to Sections 15378(b)(5) (Organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment); and
- 2. Receive and file the Investment Report for the month of May 2024.

BACKGROUND:

The attached report summarizes the Successor Agency's investment and deposit balances as of May 2024. During the month of May, the Successor Agency's total cash and investments increased by approximately \$892,500. On May 31, the Successor Agency received its semi-annual distribution of redevelopment property taxes from the California Department of Finance. The \$892,490 that was received will be used to fund the Successor Agency's obligations from July 1, 2024, through December 31, 2024. The Successor Agency's cash and investment balances by fund are presented in Attachment A. The Successor Agency's investments and deposits by financial institution are included as Attachment B.

ANALYSIS:

The Successor Agency's share of the City's investment in the State Treasurer's Local Agency Investment Fund (LAIF) continues to be available on demand. The effective yield on LAIF for the month of May 2024 was 4.33%.

The Successor Agency's investments are shown on Attachment B and have a weighted investment yield of 4.33%, which is equal to the benchmark LAIF return of 4.33%, as the entire portfolio (excluding funds held with the bond fiscal agents) represents the Successor Agency's portion of the City's pooled cash and investments. With a completely liquid portfolio, the weighted average maturity of the Successor Agency's investments on May 31, 2024, was 1 day. LAIF's average maturity on May 31, 2024, was approximately 233 days.

FISCAL IMPACT:

All deposits and investments have been made in accordance with the City's Fiscal Year 2023/24 Investment Policy.

The portfolio will allow the Successor Agency to meet its expenditure requirements for the next six months.

ENVIRONMENTAL IMPACT:

None.

LEGAL REVIEW:

None.

PUBLIC NOTIFICATION:

Through the agenda posting process.

Prepared by: Michelle Bannigan, Finance Director **Approved by:** Hannah Shin-Heydorn, City Manager

Attachments:

A. Cash and Investment Balances by Fund

B. Investments and Deposits

ATTACHMENT A

Click here to return to the agenda.

SUCCESSOR AGENCY TO THE STANTON REDEVELOPMENT AGENCY CASH AND INVESTMENTS REPORT MONTH ENDED MAY 31, 2024

Fund/ Account No.	Fund/Account Name		Beginning Balance	Increases		Decreases	E	nding Balance
712-111101	CASH-POOLED Redevelopment Obligation Retirement Fund Total Cash-Pooled (1)	<u>\$</u> \$	2,891,524.13 2,891,524.13	\$ 892,490.00 892,490.00	_		\$	3,784,014.13 3,784,014.13
712-111425	CASH-RESTRICTED (with Fiscal Agent) 2016 Tax Allocation Bonds, Series A and B 2016 Tax Allocation Bonds, Series C and D 2020 Tax Allocation Refunding Bonds, Series A	\$	712,832.81 1,235,976.05 415,404.55	\$ 2.93 5.08 1.71	\$	- - -	\$	712,835.74 1,235,981.13 415,406.26
	Total Cash-Restricted (with Fiscal Agent)	\$	2,364,213.41	\$ 9.72	\$	-	\$	2,364,223.13
	TOTAL CASH AND INVESTMENTS	\$	5,255,737.54	\$ 892,499.72	\$	-	\$	6,148,237.26

Note:

^{(1) -} Includes the Successor Agency's share of the City's BMO Harris Bank checking account and Local Agency Investment Fund (LAIF).

ATTACHMENT B Page 1 of 2

Click here to return to the agenda.

SUCCESSOR AGENCY TO THE STANTON REDEVELOPMENT AGENCY INVESTMENTS AND DEPOSITS MONTH ENDED MAY 31, 2024

Investment Type	Institution	Issuer/ Broker		Date of Maturity	Interest Rate		Cost	Market Value	MV Source
LAIF and BMO General Acct	State of California/ BMO	State of Calif	ornia	On Demand	4.33%	N/A	\$ 3,784,014	\$ 3,784,014	LAIF

Total Cash Investments and Deposits

1 4.33%
Weighted Average Weighted Average

\$ 3,784,014 \$ 3,784,014

Bond Funds Held by Trustees:

Maturity (days) Yield

Investment Type	Institution	Issuer/ Broker	CUSIP Number	Date of Maturity	Interest Rate	Par Value	Cost	Market Value	MV Source
2016 Series A and B									
Debt Service:									
Cash Equivalents	US Bank Money Market	US Bank	9AMMF05B2	On Demand	0.02%	\$ 452,510	\$ 452,510	\$ 452,510	US Bank
Interest:									
Cash Equivalent	US Bank Money Market	US Bank	9AMMF05B2	On Demand	0.02%	260,325	260,325	260,325	US Bank
Principal:									
Cash Equivalent	US Bank Money Market	US Bank	9AMMF05B2	On Demand	0.02%	1	1	1	US Bank

Total 2016 Series A and B \$ 712,836 \$ 712,836

Investment Type	Institution	Issuer/ Broker	CUSIP Number	Date of Maturity	Interes Rate	Par Value	Cost	Market Value	MV Source
2016 Series C and D		1	1				1		
Debt Service:									
Cash Equivalent	US Bank Money Market	US Bank	9AMMF05B2	On Demand	0.02%	\$ 1,235,980	\$ 1,235,980	\$ 1,235,980	US Bank
Principal:									
Cash Equivalent	US Bank Money Market	US Bank	9AMMF05B2	On Demand	0.02%	1	1	1	US Bank

Total 2016 Series C and D \$ 1,235,981 \$ 1,235,981

Investment Type	Institution	Issuer/ Broker	CUSIP Number	Date of Maturity	Interest Rate	Par Value	Cost	Market Value	MV Source
2020 Tax Allocation Refunding	Bonds								
Special Fund:									
Cash Equivalent	US Bank Money Market	US Bank	9AMMF05B2	On Demand	0.02%	\$ 415,406	\$ 415,406	\$ 415,406	US Bank

Total 2020 Tax Allocation Bonds (Tax-Exempt)

\$ 415,406 \$ 415,406

Total Bond Fund Investments and Deposits (3)

\$ 2,364,223 \$ 2,364,223

TOTAL - ALL CASH AND INVESTMENTS

\$6,148,237 \$6,148,237

Notes:

- (1) There have been no exceptions to the Investment Policy.
- (2) The Successor Agency is able to meet its expenditure requirements for the next six months.
- (3) Restricted Bond Funds are held by the fiscal agent.

Item: 9F

Click here to return to the agenda.

CITY OF STANTON REPORT TO THE CITY COUNCIL

TO: Honorable Mayor and Members of the City Council

DATE: July 9, 2024

SUBJECT: MAY 2024 GENERAL FUND REVENUE AND EXPENDITURE REPORT;

HOUSING AUTHORITY REVENUE AND EXPENDITURE REPORT; STATUS OF CAPITAL IMPROVEMENT PROGRAM; AUTHORIZE PAYMENT TO BEN'S ASPHALT, AND APPROPRIATION OF FUNDS

FOR FISCAL YEAR 2023/24 OPERATING BUDGET

REPORT IN BRIEF:

The Revenue and Expenditure Report for the month ended May 31, 2024, has been provided to the City Manager in accordance with Stanton Municipal Code Section 2.20.080 (D) and is being provided to City Council. This report includes information for both the City's General Fund and the Housing Authority Fund.

In addition, staff is requesting ratification of the payment to Ben's Asphalt, Inc. for emergency work performed on Lampson Avenue. This expenditure can be funded by the City's Gas Tax Fund (#211) because it is related to street maintenance. The amount of the invoice is \$55,801.40, which is not included in the City's Fiscal Year 2023/24 Operating Budget. As a result, staff is requesting City Council approval to appropriate funds from the Gas Tax Fund's available fund balance.

RECOMMENDED ACTIONS:

- City Council find that this item is not subject to California Environmental Quality Act ("CEQA") pursuant to Sections 15378(b)(5) (Organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment); and
- 2. Receive and file the General Fund and Housing Authority Fund May 2024 Revenue and Expenditure Reports and Status of Capital Improvement Projects for the month ended May 31, 2024; and
- 3. Waive competitive bidding requirements in the City's purchasing policy; and
- 4. Ratify the payment to Ben's Asphalt, Inc. in the amount of \$55,801.40 for emergency work performed on Lampson Avenue; and

5. Approve an appropriation of \$55,801 from the Gas Tax Fund's (#211) available fund balance to fund the emergency work completed on Lampson Avenue.

ANALYSIS:

General Fund Revenue and Expenditure Reports

Attachments A and B summarize the General Fund's revenue and expenditure activity through May 31, 2024. The reports include information for the month of May, on a year-to-date basis through May, the current fiscal year's budgeted balance and the year-to-date as a percentage of the budget. In addition, for comparison purposes, the year-to-date amount, final amount, and a percentage of final for the previous fiscal year (through May) is included as well.

As of May 31, total General Fund revenues received to date were approximately \$29.4 million, which is 89% of the Fiscal Year 2023/24 budgeted amount and is approximately \$3.7 million (15%) higher than the revenues recognized for the same period last year (Attachment A, page 2). Significant fluctuations from the previous fiscal year include:

- \$753,766 of cannabis tax revenue collected for the first time during the current fiscal year;
- \$661,953 is due to the early loan repayment received from the Lighting and Landscape Maintenance Fund approved by the City Council with the Fiscal Year 2023/24 mid-year budget adjustments on May 27;
- \$640,329 is attributed to the positive increase of, to reflect the change in fair value of the City's investment portfolio, a non-cash transaction, due to the volatility in the investment market;
- \$630,879 of property tax revenue due to more redevelopment related property tax revenue and property tax in lieu of vehicle license fee revenue collected during the current fiscal year compared to last year;
- \$400,562 is attributed to more permit revenue collected during the current fiscal year compared to the same period last year;
- \$390,940 in more interest income earned on the City's portfolio compared to the previous fiscal year; and
- \$236,150 of revenues collected representing one-time, unbudgeted developer fees (beautification, neighborhood preservation, and public benefit fees) received for the VRV residential project.

Total General Fund expenditures were approximately \$26.2 million through May 31, which represents 78% of the Fiscal Year 2023/24 projected expenditures and is approximately \$2.4 million (10%) higher than the expenditures incurred for the same period last year (Attachment B, page 2). The General Fund's Fiscal Year 2023/24 Amended Budget includes \$3.5 million in special projects that were funded by the City's American Rescue Plan Act (ARPA) Fund in Fiscal Year 2022/23. The City spent approximately \$1.3 million of these special project costs through May 31, 2024. Other significant fluctuations include:

- \$640,521 in contracted law enforcement contract costs;
- \$226,413 in contracted building inspection and building plan check services due to the timing of when vendor invoices were processed during the previous fiscal year as well as additional building plan check revenue received through May;
- \$173,964 in contracted fire protection services costs due to a 4.5% increase in Orange County Fire Authority contract costs from the prior fiscal year;
- \$112,118 in allocated liability insurance costs due to increased general liability claims and increased insurance costs; and,
- \$52,352 in City Attorney costs due to additional costs related to labor, prosecution, and litigation issues during the current fiscal year.

Per Attachment C, the City's General Fund reserves and available fund balance ("discretionary fund balance") is estimated to be \$33.6 million by June 30, 2024, as shown in the table below.

	Estimated
	Balance
	at 6/30/24
Set aside per Reserve Policy	\$ 14,400,000
Assigned Fund Balance	2,762,092
Unassigned Fund Balance	16,448,159
Total Discretionary Fund Balance	\$ 33,610,251

Housing Authority Revenue and Expenditure Reports

Attachment D summarizes the Housing Authority Fund's revenue and expenditure activity through May 31, 2024. The report includes information on the activity during the month of May, information on a year-to-date basis through May, the current fiscal year's budgeted balance and the year-to-date as a percentage of the budget. In addition, for comparison purposes, the year-to-date amount, final amount, and a percentage of final for the previous fiscal year (through May) is included as well.

As of May 31, total Housing Authority Fund revenues received to date were approximately \$1.0 million, which is 110% of the Fiscal Year 2023/24 budgeted amount and is \$156,251 (18%) more than the revenue collected through the same period last year due to the additional investment income earned from higher interest rates. Rental income from the Tina Pacific properties is down \$39,822 (6%) from the previous fiscal year because the previous fiscal year's revenue included additional revenue collected for delinquent balances from the COVID-19 period and some residents have begun relocating from the property.

Total Housing Authority Fund expenditures were approximately \$1.3 million through May 31, which is 23% of the Fiscal Year 2023/24 budget and \$2.1 million (62%) lower than the expenditures incurred for the same period last year, primarily due to the \$2.5 million payment for the Riveria Motel Project Homekey project that was made last year.

Per Attachment E, the City's Housing Authority Fund's available fund balance is expected to be \$5.3 million by June 30, 2024.

Status of Capital Improvement Projects (CIP) (Attachment F)

The Fiscal Year 2023/24 CIP budget includes \$7.0 million from the Fiscal Year 2023/24 Adopted Budget, \$12.7 million in carryover funding from Fiscal Year 2022/23, and \$50,009 in additional appropriations approved by City Council since July 1, 2023, for a total amended budget of \$19.8 million as of May 31, 2024. As of May 31, capital project expenditures totaled \$2.2 million (11% of the amended budget) with an additional \$4.6 million (23% of the amended budget) under contract (encumbered) for work currently underway, for a total amount spent or encumbered to date of \$6.8 million (34% of the amended budget) as of May 31, 2024.

Ratification of Payment to Ben's Asphalt, Inc. (Attachment G)

On May 6, 2024, Public Works staff responded to a potential sinkhole on Lampson Avenue near Santa Rosalia Street. Ben's Asphalt, Inc. was retained to safeguard the area, excavate, and repair the pavement failure. The cost for the repair work was \$55,801.40.

After excavating approximately nine feet deep, there was no apparent cause for the pavement failure. Staff directed Ben's Asphalt to backfill the excavation with cement slurry to provide a suitable base for the new asphalt. Since the work was completed, there have not been any further signs of pavement failure.

A sinkhole is a public safety concern as it may result not only in vehicular damage, but also poses a danger to human safety. As such, immediate response and action to a potential sinkhole is imperative. Staff did not have the time to follow the competitive bidding requirements contained in the City's purchasing policy because time was of the essence to remediate this issue.

FISCAL IMPACT:

After the adoption of the *Fiscal Year 2024/25 Operating and Capital Budget* on June 11, 2024, the Gas Tax Fund's (#211) available fund balance is \$1.8 million. Staff is requesting an appropriation of \$55,801 in the *Fiscal Year 2023/24 Operating Budget* to fund the emergency work completed on Lampson Avenue because the work was performed during Fiscal Year 2023/24.

ENVIRONMENTAL IMPACT:

None.

LEGAL REVIEW:

None.

PUBLIC NOTIFICATION:

Through the normal agenda posting process.

STRATEGIC PLAN OBJECTIVES:

Obj. No. 3: Provide a quality infrastructure.

Obj. No. 4: Ensure fiscal stability and efficiency in governance.

Prepared by: Michelle Bannigan, Finance Director **Approved by:** Hannah Shin-Heydorn, City Manager

Attachments:

- A. May 2024 General Fund Revenues
- B. May 2024 General Fund Expenditures
- C. General Fund Reserve Balances
- D. May 2024 Housing Authority Revenue and Expenditures
- E. Housing Authority Reserve Balance
- F. Status of Capital Improvement Projects as of May 31, 2024
- G. Ben's Asphalt, Inc. Invoice

ATTACHMENT A Page 1 of 11

Click here to return to the agenda.

CITY OF STANTON May 2024 General Fund Revenues (92% of year)

			FY 20	023/24			%
	FY 2023/24	FY 2023/24	Activity		•		Change
	Adopted	Amended	During	Year To Date	Percent of	FY 2022/23	From
	Budget	Budget	May	Actual *	Budget	Actual*	Prior Year
TAXES							
Property Tax	\$ 8,585,900			\$ 8,845,205	101.72%	\$ 8,214,326	7.68%
Sales and Use Tax	5,471,900		498,085	4,000,349	74.40%	3,924,175	1.94%
Transactions and Use Tax	6,154,000		573,083	4,598,172	75.02%	4,420,585	4.02%
Transient Occupancy Tax	673,600		43,252	507,337	81.17%	563,264	-9.93%
Franchise Fees	1,157,000	1,341,470	70,821	1,081,658	80.63%	1,164,442	-7.11%
Business Licenses	158,000	158,000	6,359	164,998	104.43%	159,343	3.55%
Utility Users Tax	2,176,400	2,519,725	205,875	2,022,432	80.26%	2,092,819	-3.36%
Cannabis Tax	620,000	620,000	109,146	753,766	121.58%	-	100.00%
Tax Increment Pass-thru Payment	577,200	717,000	280,718	626,948	87.44%	682,748	-8.17%
TAXES-TOTAL	25,574,000	26,182,945	5,631,798	22,600,865	86.32%	21,221,702	6.50%
INTERGOVERNMENTAL							
County WDA Shared Revenue	100,000	50,000	-	-	0.00%	-	0.00%
Mandated Cost Reimbursement	30,000	30,000	-	73	0.24%	-	100.00%
Motor Vehicle In Lieu	31,100	31,100	-	48,277	155.23%	40,258	19.92%
Public Safety Augmentation Tax	205,690	200,950	13,544	156,475	77.87%	156,961	-0.31%
Planning Grants	-	150,000	-	-	0.00%	-	0.00%
Federal Grants	-	-	-	-	0.00%	8,708	-100.00%
Other Grants	4,200	4,200	-	8,028	191.14%	4,139	93.96%
INTERGOVERNMENTAL-TOTAL	370,990	466,250	13,544	212,853	45.65%	210,066	1.33%
CHARGES FOR SERVICES							
Charges for Services	108,230	108,230	5,944	100,278	92.65%	142,147	-29.45%
Information Technology Charges	36,490	36,490	3,041	33,449	91.67%	34,471	-2.96%
CHARGES FOR SERVICES-TOTAL	144,720	144,720	8,985	133,727	92.40%	176,618	-24.28%
FEES AND PERMITS							
Solid Waste Impact Fees	1,150,000	1,150,000	249,960	1,115,715	97.02%	946,715	17.85%
Building Permits and Fees	1,015,000	1,015,000	64,011	862,777	85.00%	753,783	14.46%
Planning Permits and Fees	70,150	72,650	14,005	98,414	135.46%	77,607	26.81%
Engineering Permits and Fees	119,000	119,000	10,565	108,547	91.22%	124,893	-13.09%
Developer Fees	-	386,650	(11,646)	385,650	99.74%	149,500	157.96%
Recycling Fees	87,700	109,840	16,340	73,150	66.60%	61,928	18.12%

CITY OF STANTON May 2024 General Fund Revenues (92% of year)

		_	FY 20	23/24			%
	FY 2023/24	FY 2023/24	Activity	_			Change
	Adopted	Amended	During	Year To Date	Percent of	FY 2022/23	From
	Budget	Budget	May	Actual *	Budget	Actual*	Prior Year
Other Permits and Fees	276,025	386,025	17,945	356,934	92.46%	234,366	52.30%
Community Services Fees	74,000	74,000	4,812	78,328	105.85%	69,852	12.13%
FEES AND PERMITS -TOTAL	2,791,875	3,313,165	365,992	3,079,515	92.95%	2,418,644	27.32%
FINES AND FORFEITURES							
General Fines	6,700	6,710	421	2,260	33.68%	412	448.54%
Motor Vehicle Fines	85,000	87,745	4,203	41,819	47.66%	36,924	13.26%
Parking Citations	270,000	300,000	23,064	261,219	87.07%	192,823	35.47%
DMV Parking Collections	71,000	71,000	6,777	65,498	92.25%	62,663	4.52%
Administrative Citation	10,000	10,000	2,360	11,049	110.49%	5,815	90.01%
FINES AND FORFEITURES-TOTAL	442,700	475,455	36,825	381,845	80.31%	298,637	27.86%
USE OF MONEY AND PROPERTY							
Investment Earnings	190,000	650,000	-	873,919	134.45%	482,979	80.94%
Unrealized Gains (Losses)	-	-	-	495,353	0.00%	(144,976)	-441.68%
Loan Interest	9,000	9,000	-	7,447	82.74%	8,690	-14.30%
Rental Income	221,085	228,485	12,317	147,486	64.55%	163,748	-9.93%
USE OF MONEY AND PROPERTY-TOTAL	420,085	887,485	12,317	1,524,205	171.74%	510,441	198.61%
MISCELLANEOUS REVENUE							
Miscellaneous Revenue	180,955	768,379	(315)	768,723	100.04%	88,629	767.35%
MISCELLANEOUS REVENUE-TOTAL	180,955	768,379	(315)	768,723	100.04%	88,629	767.35%
TRANSFERS IN							
From Gas Tax Fund	140,000	140,000	11,667	128,333	91.67%	187,917	-31.71%
From Protective Services Fund	382,000	386,000	12,793	389,975	101.03%	386,280	0.96%
From Supplemental Law Enforcement Grants Fund	160,000	160,000	13,333	146,667	91.67%	137,500	6.67%
TRANSFERS IN-TOTAL	682,000	686,000	37,793	664,975	96.94%	711,697	-6.56%
TOTAL REVENUES AND TRANSFERS IN	\$ 30,607,325	\$ 32,924,399	\$ 6,106,939	\$ 29,366,708	89.19%	\$ 25,636,434	14.55%

^{* =} Actual data is reported through May.

TAXES
May 2024 General Fund Revenues (92% of year)

FY 2023/24 FY 2023/24 FY 2023/24 **Activity** % Change Adopted **Amended** During **Year To Date** Percent of FY 2022/23 From **Budget** Actual * Actual* Acct. No. Description **Budget** May Budget **Prior Year** 101 **General Fund** 430100 Current Year-Secured 1,096,100 \$ 1,114,000 \$ 54,879 \$ 99.87% \$ 1,105,482 0.64% 1,112,532 430105 Current Year-Unsecured 32,600 32,600 87.75% 7.01% 28,608 26,734 430115 **Property Tax-Supplemental** 24,400 24,400 3,678 22,908 93.89% 37,242 -38.49% 430120 109.76% 15.23% Residual Redevelopment Property Tax 1,777,300 1,735,000 923,081 1,904,348 1,652,646 430121 In-Lieu Vehicle License Fee 7.45% 5,511,700 5,694,750 2,847,376 5,694,751 100.00% 5,299,729 430135 -7.60% Homeowners Tax Relief 4,800 4,800 1,552 3,770 78.54% 4,080 430140 83.83% -14.12% **Property Transfer Tax** 139,000 90,000 13,893 75,443 87,848 430145 Property Tax-Penalties/Int 2,845 0.00% 565 403.54% 430200 Sales And Use Tax 5,471,900 5,376,730 498.085 4,000,349 74.40% 3,924,175 1.94% 430300 **Transient Occupancy Tax** 673,600 625,000 43,252 507,337 81.17% 563,264 -9.93% 430405 Franchise Tax/Cable TV 200,000 255,470 42,972 16.82% 184,653 -76.73% 430410 285,000 96.63% -0.10% Franchise Tax/Electric 244,000 275,397 275,662 430415 Franchise Tax/Gas 75,000 98,000 101,715 103.79% 96,193 5.74% 430420 92.60% 9.24% Franchise Tax/Refuse 550,000 615,000 70,821 569,484 521,315 430425 Franchise Tax/Water 88,000 88,000 92,090 104.65% 86,619 6.32% 430500 **Business License Tax** 158,000 158,000 6,359 164,998 104.43% 159,343 3.55% 430600 Util User Tax/Electricity 1,407,000 114,248 84.69% 1,210,879 -1.59% 1,218,400 1,191,631 430605 4.27% Util User Tax/Telephone 196,300 228,725 15,528 173,349 75.79% 166,256 Util User Tax/Gas 54.20% 430610 336,700 470,000 34,950 254,758 369,774 -31.10% 430615 97.27% 16.42% Util User Tax/Water 425,000 414,000 41,149 402,694 345,910 430700 Cannabis Tax 620,000 620,000 109,146 753,766 121.58% 100.00% 440100 AB 1389 Pass Through from RDA 577,200 717,000 280,718 626,948 87.44% 682,748 -8.17% 101 **General Fund** 5,058,715 89.77% 7.15% 19,420,000 20,053,475 18,002,693 16,801,117 102 General Fund (Transactions & Use Tax) 430250 **Transactions & Use Tax** 4.02% 6,154,000 6,129,470 573,083 4,598,172 75.02% 4,420,585 102 4.02% General Fund (Transactions & Use Tax) 6,154,000 6,129,470 573,083 4,598,172 75.02% 4,420,585 TAXES - TOTAL \$ 21,221,702 \$ 25,574,000 \$ 26,182,945 \$ 5,631,798 \$ 22,600,865 86.32% 6.50%

^{* =} Actual data is reported through May.

INTERGOVERNMENTAL May 2024 General Fund Revenues (92% of year)

FY 2023/24 FY 2023/24 FY 2023/24 **Activity** % Change **Adopted Amended** During FY 2022/23 From **Year To Date** Percent of Actual * **Budget** Actual* **Prior Year** Acct. No. Description Budget May **Budget** 101 **General Fund** \$ \$ \$ 432121 County WDA Shared Revenue 100,000 \$ 50,000 \$ 0.00% 0.00% 432135 **Mandated Cost Reimbursement** 30,000 0.24% 30,000 100.00% 73 432150 31,100 31,100 48,277 155.23% 40,258 19.92% Motor Vehicle In Lieu 432180 **Public Safety Augmentation Tax** 205,690 200,950 13,544 156,475 77.87% 156,961 -0.31% 432245 **Planning Grants** 150,000 0.00% 0.00% 432256 Other Grants 4,200 4,200 8,028 191.14% 4,139 93.96% 432270 **Federal Grants** 0.00% 8,708 -100.00% 370,990 \$ 466,250 \$ 212,853 INTERGOVERNMENTAL - TOTAL \$ 13,544 \$ 45.65% 210,066 1.33%

^{* =} Actual data is reported through May.

CHARGES FOR SERVICES May 2024 General Fund Revenues (92% of year)

							FY 202	23/2	4				
Acct. No.	Description		FY 2023/24 Adopted Budget		FY 2023/24 Amended Budget		Activity During May		ar To Date Actual *	Percent of Budget	FY 2022/23 Actual*		% Change From Prior Year
101	General Fund												
433100	Charges For Services	\$	108,230	\$	108,230	\$	5,944	\$	100,278	92.65%	\$	142,147	-29.45%
433136	Information Technology Charges		36,490		36,490		3,041		33,449	91.67%		34,471	-2.96%
	CHARGES FOR SERVICES - TOTAL	\$	144,720	\$	144,720	\$	8,985	\$	133,727	92.40%	\$	176,618	-24.28%

^{* =} Actual data is reported through May.

FEES AND PERMITS May 2024 General Fund Revenues (92% of year)

FY 2023/24 % Change FY 2023/24 FY 2023/24 Activity **Adopted Amended During Year To Date** Percent of FY 2022/23 From Acct. No. Description Budget Actual * Actual* **Prior Year** Budget May Budget 101 **General Fund** \$ 135,000 \$ 135,000 \$ 431100 **Building Plan Check Fees** 12,664 \$ 192,718 142.75% \$ 145,266 32.67% 431105 **Mechanical Permits** 100,000 5,295 74.46% 100,000 74,460 56,653 31.43% **Building Permits** 600,000 600,000 34,858 468,046 385,905 431110 78.01% 21.29% -7.50% 431115 **Plumbing Permits** 80,000 80,000 4,010 40,150 50.19% 43,405 431120 **Electrical Permits** 100,000 100,000 7,184 87.40% -28.68% 87,403 122,554 431130 **Engineering Plan Check Fees** 35,000 35,000 1,445 72.53% 23,900 6.21% 25,384 431135 **Public Works Permits** 84,000 84,000 9,120 83,163 99.00% 100,993 -17.65% -43.96% 431140 S M I P - Commercial Fees 400 400 51 12.75% 91 431145 250 69.20% 136.99% S M I P-Residential Permits 250 173 73 2,500 431146 2,500 95 1,319 52.76% 1,011 30.46% SB 1473 Fee 431160 1,150,000 1,150,000 249,960 1,115,715 97.02% 946,715 17.85% Solid Waste Impact Fees 431180 88.39% -37.98% P/W Inspections 15,000 15,000 2,134 13,259 21,377 431185 **Parking Permits** 45,000 45,000 1,925 48,265 107.26% 9,314 418.20% 25,000 810 8,910 431190 Towing Franchise Fee 25,000 35.64% 15,210 -41.42% Beautification/Enhancement Fee 50,000 431192 100.00% 100.00% 50,000 **Neighborhood Preservation Fees** 6,000 6,000 431193 100.00% 19,500 -69.23% 431194 330,650 (11,646)Public Benefit Fee 329,650 99.70% 130,000 153.58% 431195 6,611 36.49% Other Fees & Permits 15,000 60,000 64,792 107.99% 47,471 431196 **Forfeited Deposits** 75,000 75,339 100.45% 198 37950.00% 0.00% 10,000 0.00% 431201 Cannabis Business Renewal Permit Fee 433200 **Conditional Use Permit** 7,000 7,000 7,455 106.50% 9.615 -22.46% 433205 15,000 3,070 40.93% -70.05% Precise Plan Of Design 15,000 6,140 20,500 433220 3,750 3,750 150.00% 100.00% **Preliminary Plan Review** 5,625 -433225 **Environmental Services** 4,400 4,400 300 6.82% 900 -66.67% 10,000 10,000 433227 **Foreclosure Registration** 2,774 27.74% 7,712 -64.03% 433230 **Zoning Entitlements** 0.00% 100.00% 3,595 433235 **Land Divisions** 2,500 2,500 3,730 3,730 149.20% 3,070 21.50% (360)1,800 433240 **Special Event Permits** 500 500 360.00% 1,890 -4.76%

FEES AND PERMITS May 2024 General Fund Revenues (92% of year)

FY 2023/24 FY 2023/24 Activity FY 2023/24 % Change **Adopted During** From Amended **Year To Date** Percent of FY 2022/23 Acct. No. Description Budget Actual * Actual* **Prior Year** Budget May Budget 101 **General Fund** Sign/Ban'R/Gar Sa/Temp Use Per 433245 4,000 4,000 390 7,660 191.50% 5,270 45.35% 433250 **Ministerial Services** 15,325 39.13% 12,000 12,000 2,395 127.71% 11,015 433260 Landscape Plan Check 1,500 1,500 325 108.33% 3,250 -50.00% 1,625 433270 General Plan Maint Surcharge 10,000 10,000 4,095 42,000 420.00% 16,275 158.06% 433285 Other Developmental Fees 2,500 2,185 87.40% 100.00% 433305 **General Recreation Programs** 52,000 3,377 52,635 101.22% 45,437 15.84% 52,000 433315 **Sports Fields** 22,000 22,000 1,435 25,693 116.79% 24,415 5.23% **Recycling Fees** 87,700 109,840 16,340 73,150 61,928 18.12% 437115 66.60% 430505 New/Moved Bus Lic Appl Rev 34,700 34,700 2,960 26,784 77.19% 30,170 -11.22% 125,500 125,500 3,410 8.11% 430510 **Business Tax Renewal Process** 90.99% 114,187 105,626 430515 94.48% SB 1186 2,175 2,175 360 2,055 1,935 6.20% FEES AND PERMITS - TOTAL 2,791,875 \$ 3,313,165 \$ 365,992 \$ 3,079,515 92.95% 2,418,644 27.32%

^{* =} Actual data is reported through May.

FINES AND FORFEITURES May 2024 General Fund Revenues (92% of year)

FY 2023/24 FY 2023/24 FY 2023/24 **Activity** % Change Adopted Amended **During Year To Date Percent of** FY 2022/23 From Actual * Actual* **Prior Year** Acct. No. Description Budget Budget May **Budget** 101 **General Fund** 434100 **General Fines** \$ 6,700 \$ 6,710 \$ 421 \$ 2,260 33.68% \$ 448.54% 412 434105 **Motor Vehicle Fines** 85,000 87,745 4,203 41,819 47.66% 36,924 13.26% 434110 **Parking Citations** 270,000 300,000 23,064 261,219 87.07% 35.47% 192,823 434115 **DMV Parking Collections** 71,000 71,000 6,777 65,498 92.25% 4.52% 62,663 434120 **Administrative Citations** 10,000 10,000 2,360 11,049 110.49% 5,815 90.01% 475,455 \$ 381,845 FINES AND FORFEITURES - TOTAL \$ 442,700 \$ 36,825 \$ 80.31% 298,637 27.86%

^{* =} Actual data is reported through May.

USE OF MONEY AND PROPERTY May 2024 General Fund Revenues (92% of year)

FY 2023/24 FY 2023/24 FY 2023/24 **Activity** % Change **Adopted Amended During Year To Date** Percent of FY 2022/23 From Actual * **Prior Year** Acct. No. Description **Budget Budget** May **Budget** Actual* 101 **General Fund** \$ 190,000 \$ 650,000 \$ \$ 80.94% 435100 Interest Earned 873,919 134.45% \$ 482,979 435110 **Unrealized Gains (Losses)** 495,353 0.00% (144,976)441.68% 435200 Loan Interest 9,000 9,000 82.74% -14.30% 7,447 8,690 14,600 436115 **Property Rental** 7,200 1,234 13,368 91.56% 6,000 122.80% 436125 **Indoor Facility Rental** 164,000 164,000 5,880 53.54% -21.43% 87,803 111,752 436127 28,000 28,000 82.63% 23,693 -2.36% **Picnic Shelters** 3,255 23,135 21,885 436135 Pac Bell Mobile Svcs-Rent 21,885 1,948 23,180 105.92% 22,303 3.93% **USE OF MONEY AND PROPERTY - TOTAL** 420,085 \$ 887,485 \$ 171.74% 510,441 198.61% 12,317 \$ 1,524,205

^{* =} Actual data is reported through May.

MISCELLANEOUS REVENUE May 2024 General Fund Revenues (92% of year)

		FY 2023/24											
			7 2023/24 Adopted		FY 2023/24 Amended		Activity During	Ye	ar To Date	Percent of	F	Y 2022/23	% Change From
Acct. No.	Description	Budget			Budget		May		Actual *	Budget	Actual*		Prior Year
101	General Fund												
437100	Sale Of Publications	\$	-	\$	-	\$	(20)	\$	172	0.00%	\$	23	-647.83%
437105	Firework Services		475		475		-		=	0.00%		473	-100.00%
437110	Candidate Statements		=		-		-		=	0.00%		1,508	-100.00%
437125	Donations		-		35,250		-		35,759	101.44%		3,500	921.69%
437130	Insurance Reimbursement		-		6,141		-		7,157	116.54%		-	100.00%
437135	Expense Reimbursement		15,000		34,560		(565)		47,984	138.84%		51,094	-6.09%
437137	Loan Repayment from Landscape Maintenance District		135,480		661,953		-		661,953	100.00%		=	100.00%
437195	Other Revenue		30,000		30,000		270		15,698	52.33%		32,031	-50.99%
	MISCELLANEOUS REVENUE - TOTAL	\$	180,955	\$	768,379	\$	(315)	\$	768,723	100.04%	\$	88,629	767.35%

^{* =} Actual data is reported through May.

TRANSFERS IN May 2024 General Fund Revenues (92% of year)

							FY 20	23/	/24				
		A	/ 2023/24 Adopted		FY 2023/24 Amended		Activity During		ear To Date	Percent of	FY 2022/23		% Change From
Acct. No.	Description		Budget		Budget		May		Actual *	Budget		Actual*	Prior Year
101	General Fund												
439211	Transfer From Gas Tax Fund	\$	140,000	\$	140,000	\$	11,667	\$	128,333	91.67%	\$	187,917	-31.71%
439223	Transfer From Protective Services Fund		382,000		386,000		12,793		389,975	101.03%		386,280	0.96%
439242	Transfer From Supp Law Enf Grant		160,000		160,000		13,333		146,667	91.67%		137,500	6.67%
	TRANSFERS IN - TOTAL	\$	682,000	\$	686,000	\$	37,793	\$	664,975	96.94%	\$	711,697	-6.56%

^{* =} Actual data is reported through May.

Click here to return to the agenda.

City of Stanton May 2024 General Fund Expenditures (92% of year)

FY 2023/24 FY 2023/24 FY 2023/24 % Change Division **Adopted Amended Activity** Year to Date Percent of FY 2022/23 from Prior **Budget Budget** Actual * No. Description **During May** Budget Actual* Year \$ \$ 144,645 1100 City Council 129,105 6,632 109,900 75.98% 105,475 4.20% 1200 City Attorney 300,000 630,000 11,863 407,839 64.74% 355,487 14.73% 75.79% 1300 City Manager 588,165 623,160 36,520 472,267 368,957 28.00% 1400 City Clerk 206,565 86.33% -14.54% 218,770 15,481 188,867 220,999 Personnel/Risk Management 78.22% 1410 280,410 296,085 18,367 231,601 193,892 19.45% 1,039,515 54,052 1510 Information Technology 657,729 76.16% 24.55% 863,659 528,097 Administration 2,543,760 2,776,319 142,915 2,068,203 74.49% 1,772,907 16.66% 77.83% 9.13% 1500 Finance 1,080,775 1,093,880 67,365 851,340 780,086 Non-Dept (excludes Transfers) 395,000 1600 390,000 49,305.000 230,300 58.30% 121,401 -89.70% 72.65% **Finance** 1,470,775 1,488,880 116,670 1,081,640 901,487 19.98% **Emergency Preparedness** 4,175 1520 5,000 5,000 13.000 2,912 58.24% 30.25% Law Enforcement 13,777,981 1,195,576 12,574,183 91.26% 5.34% 2100 14,655,075 11,936,521 2200 Fire Protection 5,549,765 5,551,815 23,878.000 4,169,085 75.09% 3,992,411 4.43% 2230 100 83.32% -72.72% Contractual Ambulance Svcs 2,500 2,500 2,083 1,206 **Homeless Prevention** 45.24% 2300 422,385 406,785 19,003 184,045 100.00% 2400 **Animal Control Services** 211,015 211,015 (17,868)211,012 100.00% 200,964 5.00% Public Safety-Other 213.125 11.872 203.215 90.36% 78.66% 2500 224,905 113.743 4300 **Parking Control** 258,050 276,605 20,820 228,332 82.55% 195,386 16.86% **Code Enforcement** 622,955 636,050 47,408 544,898 85.67% 525,358 6200 3.72% 21,939,870 1,300,802 **Public Safety** 21,092,656 18,119,765 85.91% 16,969,764 6.78% 87.07% 7.69% 3000 **Public Works Administration** 607,060 615,025 43,439 535,487 497,240 3100 24,396 Engineering 491,025 487,025 309,068 63.46% 203,207 52.10% 3200 **Public Facilities** 649,865 669,695 50,838 81.51% 693,593 -21.30% 545,849 46,000 46,000 6,738 93.56% 39,940 3300 **Crossing Guard** 43,036 7.75% 79.43% 3400 Parks Maintenance 503,140 513,851 40,551 408,155 309,713 31.78% 3500 Street Maintenance 477,045 493,599 31,052 327,908 66.43% -3.85% 341,039 79.94% 3600 Storm Drains 170,800 204,365 21,126 163,364 159,360 2.51% 128,600 8,111 6300 Graffiti Abatement 129,800 72,440 56.33% 73,796 -1.84% 226,251 3.77% **Public Works** 3,074,735 3,158,160 2,405,307 76.16% 2,317,888

^{* =} Actual data is reported through May.

City of Stanton May 2024 General Fund Expenditures (92% of year)

FY 2023/24 FY 2023/24 FY 2023/24 % Change Division **Adopted Amended Activity** Year to Date Percent of FY 2022/23 from Prior **Budget** Actual * No. Description Budget **During May** Budget Actual* Year 4000 Community Development Administration 389,890 393,075 23,965 271,620 69.10% 222,278 22.20% 684,470 4100 **Planning** 515,740 66,474 314,068 45.88% 256,604 22.39% **Building Regulation** 54.55% 4200 602,190 597,290 47,412 325,793 185,293 75.83% 2,836 4400 **Economic Development** 12,500 12,500 6,172 49.38% 707 772.98% 1,520,320 1,687,335 140,687 917,653 **Community Development** 54.38% 664,882 38.02% 5000 **Public Information Office** 116,640 196,840 3,599 154,697 78.59% 98,478 57.09% 660,400 683.423 56.090 569.382 83.31% 5100 **Community Services Administration** 502.850 13.23% 5200 **Community Center Operations** 134,605 302,525 11,374 131,042 43.32% 84,906 54.34% 5300 Park Operations 360,365 362,175 25,147 302,223 83.45% 225,219 34.19% 77,535 56,940 3,932 48,325 5400 Senior Citizen Programs 84.87% 68,004 -28.94% 5500 105,230 109,827 86.95% 43.46% **Recreation Programs** 11,916 95,498 66,567 **Community Services** 1,301,167 1,454,775 1,711,730 112,058 76.01% 1,046,024 24.39% 46,865 397 29.22% -38.47% Transfer to FACT Grant 75,020 21,918 35,620 4.86% Transfer to Senior Transportation Fund 9,420 1,420 69 6,456 -98.93% Transfer to SCP Maintenance 64,775 64,775 5,398 59,377 91.67% 54,267 9.42% Transfer to Capital Projects Fund 660,000 1,484,916 52,920 228,081 15.36% 100.00% **Transfers to Other Funds** 781,060 1,626,131 58,715 309,445 19.03% 96.343 221.19% 78.12% \$ 33,541,211 \$ 2,098,098 \$ 23,769,295 **TOTAL EXPENDITURES** \$ 32,785,295 \$ 26,203,180 10.24%

^{* =} Actual data is reported through May.

FY 2023/24 FY 2023/24 % Change FY 2023/24 **Adopted** Amended **Activity** Year to Date FY 2022/23 From Prior **Budget Budget** Actual * Year Acct. No. Description **During May** % of Budget Actual* **General Fund** 101 1100 **City Council** \$ 52,200 \$ 52,200 \$ 4,023 \$ 46,165 \$ 501105 Salaries-Elected 88.44% 48,729 -5.26% 0.00% 0.00% 502115 Unemployment Insurance 1.120 1.120 Medicare/Fica 755 502120 755 58 669 88.61% 704 -4.97% 5.60% Other Benefit Charges 502130 750 750 4 42 553 -92.41% 602100 Special Dept Expense 10,100 10,100 209 9,068 89.78% 5,655 60.35% 602110 Office Expense 2,000 2,000 111 803 40.15% -55.34% 1,798 602115 0.00% 100.00% **Postage** 4 607100 Membership/Dues 43,950 43,950 39,724 90.38% 33,992 16.86% Travel/Conference/Meetings 607110 15,000 15,000 2,227 9,876 65.84% 11,655 -15.26% 608105 **Professional Services** 0.00% 0.00% 15,000 Liability Insurance Charge 3,230 3,770 612115 3.549 94.14% 2.389 48.56% **City Council Total** 129,105 144,645 1100 6,632 109,900 75.98% 105,475 4.20% **City Attorney** 1200 300,000 11,863 14.73% 608105 **Professional Services** 630,000 407,839 64.74% 355,487 1200 **City Attorney Total** 300,000 630,000 11,863 64.74% 407,839 355,487 14.73% 1300 **City Manager** 501110 Salaries-Regular 353,525 358,525 20,882 284,095 79.24% 208,336 36.36% 501115 Salaries-Overtime 500 500 0.00% 9 -100.00% 1,543 0.00% 501120 Salaries-Part-Time 100.00% 2,718 91.20% 7.70% 502100 Retirement 66,695 66,695 4,607 60,828 56,477 5,275 502105 Workers Comp Insurance 5,275 350 4,759 90.22% 3,833 24.16% Health/Life Insurance 502110 26,625 26,625 2.477 24,037 90.28% 20,338 18.19% 502111 Medical In-Lieu Pay 4,200 4,200 30 75.79% 172 1750.58% 3,183 502115 **Unemployment Insurance** 505 505 283 56.04% 331 14.50%

^{* =} Actual data is reported through May.

FY 2023/24 FY 2023/24 FY 2023/24 % Change **Adopted Amended Activity** Year to Date FY 2022/23 **From Prior Budget Budget** Actual * Year Acct. No. Description **During May** % of Budget Actual* 1300 City Manager, Continued 502120 Medicare/Fica 4.775 4,875 310 4,131 84.74% 2,921 41.42% 502130 1,833 -86.03% Other Benefit Charges 35 35 19 256 731.43% 25.000 0.00% 0.00% 602100 Special Dept Expense 602110 10,600 1,330 66.42% 10.600 7.040 7.016 0.34% Office Expense Postage 781 602115 200 200 903 451.50% 55 1541.82% **Books/Periodicals** 602120 100 100 0.00% 0.00% 607100 Membership/Dues 1,000 1,000 495 49.50% 467 6.00% 607110 Travel/Conference/Meetings 4,800 4,800 414 8.63% 75.97% 1,723 608105 **Professional Services** 78,000 78,000 4,019 45,073 57.79% 44,000 -2.44% 2,065 612105 Vehicle Replacement Charge 2,065 172 1,893 91.67% 1,888 0.26% 612115 Liability Insurance Charge 29,265 34,160 32,159 19,558 64.43% 94.14% **City Manager Total** 588,165 36,520 472,267 368,957 1300 75.79% 28.00% 623,160 **City Clerk** 1400 Salaries-Regular 501110 124,505 124,505 9,517 113,824 91.42% 105,219 8.18% 501115 Salaries-Overtime 500 500 153 887 177.40% 140 533.57% 502100 35,275 2,925 96.54% -6.44% Retirement 35,275 34,056 36,401 502105 **Workers Comp Insurance** 1,965 1,965 159 1,901 96.74% 1,936 -1.81% 502110 Health/Life Insurance 20,535 20,535 1,935 19,140 93.21% 17,102 11.92% 502111 Medical In-Lieu Pay 44 0.00% 809.38% 291 32 **Unemployment Insurance** 502115 245 245 139 56.73% 161 -13.66% Medicare/Fica 9.68% 90.50% 502120 1,790 1,790 136 1,620 1,477 Other Benefit Charges 680.00% 926 502130 15 15 9 102 -88.98% 2,250 602110 Office Expense 2,250 158 824 36.62% 2,305 -64.25% 602115 500 500 37 818 163.60% 541 51.20% **Postage** 602120 **Books/Periodicals** 100 100 76 76.00% 72 5.56% 60.24% -39.76% 607100 Membership/Dues 415 415 250 415

^{* =} Actual data is reported through May.

FY 2023/24 % Change FY 2023/24 FY 2023/24 **Adopted** Amended **Activity** Year to Date FY 2022/23 **From Prior Budget** Actual * Year Acct. No. Description **Budget During May** % of Budget Actual* City Clerk, Continued 1400 607110 Travel/Conference/Meetings 1,200 1,200 0.00% 0.00% 6,000 0.00% 608105 **Professional Services** 6,000 4,420 73.67% 4,658 0.00% Microfilming 11,000 0.00% 608135 2,500 607115 360 1.585 63.40% 836 89.59% Training 2,500 608140 Elections 1,000 1,000 499 49.90% 42,864 98.84% 612105 Vehicle Replacement Charge 575 575 48 527 91.65% 486 8.44% 612115 Liability Insurance Charge 7,195 8,400 7,908 94.14% 45.69% 5,428 1400 206,565 15,481 86.33% 220,999 -14.54% **City Clerk Total** 218,770 188,867 1410 Personnel/Risk Management Salaries-Regular 123,500 -8.36% 501110 123,500 9,297 100,864 81.67% 110,062 501120 47,795 60,595 2,994 70.65% Salaries-Part-Time 42,811 100.00% 29,720 1,991 502100 77.69% 26.910 -10.03% Retirement 31,165 24,211 2,575 2,575 502105 **Workers Comp Insurance** 205 2,399 93.17% 2,025 18.47% 502110 Health/Life Insurance 17,845 17,845 2.037 20,006 112.11% 14,550 37.50% 502111 Medical In-Lieu Pay 46 138 0.00% 100.00% 502115 **Unemployment Insurance** 252 56.00% 272 -7.35% 450 450 502120 Medicare/FICA 2,400 2,610 172 2,017 77.28% 1,551 30.05% 502130 Other Benefit Charges 30 30 11 129 430.00% 969 -86.69% 602110 Office Expense 1,400 2,220 400 1,338 60.27% -2.62% 1,374 602115 200 200 18 258 129.00% 85.61% **Postage** 139 607100 Membership/Dues 100.00% 93.75% 725 775 775 400 Travel/Conference/Meetings 607110 2,000 150 144 96.00% 73 97.26% 5,180 607115 **Training** 6,000 4,988 96.29% 308 1519.48%

10,000

13,750

960

2,447

7.815

24.47%

56.84%

-25.96%

-25.41%

3,305

10,477

10,000

13,750

Professional Services

Education Reimbursement Program

607120

608105

^{* =} Actual data is reported through May.

FY 2023/24 % Change FY 2023/24 FY 2023/24 **Adopted Amended Activity** Year to Date FY 2022/23 **From Prior** Actual * Acct. No. Description **Budget** Budget **During May** % of Budget Actual* Year 1410 Personnel/Risk Management, Continued 608125 Advertising/ Business Dev't 2,200 2,200 775 35.23% 24.32% 1,024 Employee/Volunteer Recognition 609125 12,000 13,800 191 11,737 85.05% 11,905 -1.41% Vehicle Replacement Charge 535 91.59% 7.93% 612105 535 45 490 454 Liability Insurance Charge 612115 8.505 8.007 94.14% 5.070 57.93% 7.285 0.00% 701105 **Equipment-General** 2,338 -100.00% 702100 Office Furniture 0.00% 686 -100.00% 1410 Personnel/Risk Management 296,085 231,601 78.22% 193,892 19.45% 280,410 18,367 1510 **Information Technology** 501110 Salaries-Regular 101,935 101,935 7,550 90,605 88.89% 78,578 15.31% 6,000 6,000 16,602 501115 Salaries-Overtime 3,162 52.70% -80.95% 502100 28,070 **Retirement Charges** 28,070 2,320 27,110 96.58% 27,246 -0.50% 1,560 1,560 2.86% 502105 126 96.99% 1.471 Workers Comp Insurance 1.513 502110 Health/Life Insurance 17,335 17,335 1,669 16,426 94.76% 14,472 13.50% **Unemployment Insurance** 502115 225 225 126 56.00% 150 -16.00% 502120 Medicare/Fica 1.425 1,425 98 1,240 87.02% 1,275 -2.75% 502130 Other Benefit Charges 15 15 7 546.67% 703 -88.34% 82 602140 Materials & Supplies 15,000 5,000 603 2,479 49.58% 7,448 66.72% 603105 **Equipment Maintenance** 50,000 60,000 19,421 69,627 116.05% 72,111 3.44% 604100 112,500 127,500 6,659 64.38% -13.56% Communications 82,082 94,960 Membership/Dues 607100 996 71.51% 35,410 59,410 42,486 100.00% 69.85% 608100 358,575 65.57% **Contractual Services** 442,809 14,101 309,290 186,800 8.37% Vehicle Replacement Charge 6,020 91.66% 612105 6,020 502 5,518 5,092 Liability Insurance Charge 94.15% 50.48% 612115 5,445 6,355 5,983 3,976 701050 **Computer Software** 0.00% 300,000 17,213 -100.00% **Information Technology Total** 1,039,515 24.55% 1510 863,659 54.052 657.729 76.16% 528,097 TOTAL ADMINISTRATION-SHIN-HEYDORN 74.49% 16.66% 2,543,760 2,776,319 \$ 142,915 2,068,203 \$ 1,772,907

^{* =} Actual data is reported through May.

Finance-Bannigan May 2024 General Fund Expenditures (92% of year)

FY 2023/24 FY 2023/24 FY 2023/24 % Change **Adopted From Prior** Amended **Activity** Year to Date FY 2022/23 Actual * Description **Budget** % of Budget Acct. No. **Budget During May** Actual* Year 101 **General Fund** 1500 Finance Salaries-Regular \$ 616,015 \$ 562,875 \$ 38,032 \$ Ś 408,724 2.57% 501110 419,236 74.48% 501115 Salaries-Overtime 1,000 1,000 879 87.90% 128.31% 385 501120 Salaries-Part Time 64,810 84,810 4,596 66.841 78.81% 47.427 40.93% 82.07% -14.28% 502100 Retirement 117,395 114,555 8,391 94,010 109,670 -3.30% 10,255 502105 Workers Comp Insurance 10,255 712 8,117 79.15% 8,394 502110 Health/Life Insurance 78,245 70,125 85.99% 56.85% 81,550 7,580 44,707 502111 Medical In-Lieu Pay 5,285 2,400 224 1,956 -42.30% 81.50% 3,390 4.44% 502115 **Unemployment Insurance** 1,895 1,895 1,316 6 69.45% 1,260 502120 512 67.54% 5.85% Medicare/FICA 9,520 8,740 5,903 5,577 1,000 502130 Other Benefit Charges 520 38 611 61.10% 3,621 -83.13% 602110 Office Expense 6,000 4,890 54.68% -58.21% 2,023 2,674 6,398 602115 Postage 3,500 3,500 163 2,533 72.37% 19.99% 2,111 602120 **Books/Periodicals** 100 0.00% -100.00% 65 607100 -24.20% Membership/Dues 1.100 1,100 830 75.45% 1.095 607105 100 27.00% 100.00% Mileage Reimbursement 100 27 607110 Travel/Conference/Meetings 75.82% -27.31% 5,845 5,095 3,863 5,314 607115 1,400 76.40% -16.62% **Training** 3,835 785 2,930 3,514 608105 **Professional Services** 86,180 96,257 49.24% 2,376 79.92% 64,496 120,445 -5.10% 608107 **Financial Services** 20,600 27,000 1,292 22,533 83.46% 23,744 608130 Temporary Help 0.00% 11,242 -100.00% 611116 Payment to Other Agencies 1,000 1,000 356 881 88.10% 820 7.44% 612105 Vehicle Replacement Charge 7.73% 3,345 3,345 279 3,066 91.66% 2,846 612115 **Liability Insurance Charge** 40,165 29,482 46,880 44,134 94.14% 49.70%

^{* =} Actual data is reported through May.

Finance-Bannigan May 2024 General Fund Expenditures (92% of year)

FY 2023/24 FY 2023/24 FY 2023/24 % Change **Adopted Amended Activity** FY 2022/23 **From Prior** Year to Date Actual * Actual* **Budget Budget** % of Budget Acct. No. Description **During May** Year Finance, Continued 1500 701100 **Equipment-Office** 100.00% 126.99% 1,110 1,110 489 702100 Furniture-Office 0.00% -100.00% 359 1500 **Finance Total** 1,074,275 67,365 849,832 78.15% 9.53% 1,087,380 775,919 1600 **Non-Departmental Economic Development Loan Repayment** 49.09% 610235 350,000 350,000 180,995 51.71% 121,401 Revenue Sharing-City of Anaheim 40,000 45,000 49,305 49,305 109.57% 100.00% 611105 1600 **Non-Departmental Total** 390,000 395,000 49,305 230,300 58.30% 89.70% 121,401 101 **GENERAL FUND TOTAL** \$ 1,464,275 \$ 1,482,380 \$ 116,670 \$ 1,080,132 72.86% 897,320 20.37% **General Fund (Transactions & Use Tax)** 102 1500 **Finance** 608105 **Professional Services** 6,500 6,500 1,508 23.20% 4,167 -63.81% 102 TRANSACTIONS AND USE TAX TOTAL 6,500 \$ 23.20% -63.81% *6,500* \$ 1,508 4,167 \$ 1,470,775 \$ 1,488,880 116,670 \$ 1,081,640 72.65% 19.98% **TOTAL FINANCE** 901,487

^{* =} Actual data is reported through May.

						F1 20	123/	<u> </u>				
Acct. No	·		ctivity ing May		ear to Date Actual *	% of Budget	I	FY 2022/23 Actual*	% Change From Prior Year			
101	General Fund											
1520	Emergency Services											
602140	Materials & Supplies	\$	5,000	\$	5,000	\$ 13	\$	2,912	58.24%	\$	-	100.00%
608105	Professional Services		-		-	-		-	0.00%		4,175	-100.00%
1520	Emergency Services		5,000		5,000	13		2,912	58.24%		4,175	-30.25%
2100	Law Enforcement											
602100	Special Dept Expense		1,500		3,000	274		3,172	105.73%		4,600	-31.04%
602110	Office Expense		4,000		2,500	-		1,538	61.52%		3,472	-55.70%
602145	Gas/Oil/Lube		3,000		3,000	223		2,072	69.07%		1,394	48.64%
604100	Communications		44,000		59,000	675		42,573	72.16%		40,781	4.39%
608100	Contractual Services		18,700		18,700	-		14,250	76.20%		16,643	-14.38%
608160	O.C.S.D. Contract	10	0,130,355	8	,394,535	508,252		7,899,484	94.10%		8,240,841	-4.14%
612105	Vehicle Replacement Charge		6,020		6,020	502		5,518	91.66%		5,092	8.37%
2100	Law Enforcement Total	10),207,575	8	,486,755	509,926		7,968,607	93.89%		8,312,823	-4.14%
2200	Fire Protection											
602100	Special Department Expense		45,950		48,000	23,878		47,756	99.49%		45,046	6.02%
608185	O.C.F.A. Contract	4	4,003,815	4	,003,815	-		2,986,674	74.60%		2,444,147	22.20%
2200	Fire Protection Total	4	1,049,765	4	,051,815	23,878		3,034,430	74.89%		2,489,193	21.90%
2230	Ambulance Services											
608190	Contractual Ambulance Svcs		2,500		2,500	100		2,083	83.32%		1,206	72.72%
2230	Ambulance Services Total		2,500		2,500	100		2,083	83.32%		1,206	72.72%
2300	Homeless Prevention											
501110	Salaries-Regular		307,350		280,195	14,476		137,570	49.10%		-	100.00%
502100	Retirement		55,635		55,635	2,510		25,760	46.30%		-	100.00%
502105	Workers Comp Insurance		4,665		4,245	242		2,297	54.11%		-	100.00%
502110	Health/Life Insurance		45,215		44,815	1,198		12,233	27.30%		-	100.00%
502111	Medical In-Lieu Pay		4,200		4,200	350		3,675	87.50%		-	100.00%

^{* =} Actual data is reported through May.

			_	FY 2023/24				
Acct. No	. Description	FY 2023/24 Adopted Budget	FY 2023/24 Amended Budget	Activity During May	Year to Date Actual *	% of Budget	FY 2022/23 Actual*	% Change From Prior Year
2300	Homeless Prevention, Continued							
502115	Unemployment Insurance	895	670	-	337	50.30%	-	100.00%
502120	Medicare/Fica	4,365	3,965	214	2,049	51.68%	-	100.00%
502130	Other Benefits	60	60	13	124	206.67%	-	100.00%
610230	North SPA Navig Ctr Cost Share	-	13,000	-	-	0.00%	-	0.00%
2300	Homeless Prevention Total	422,385	406,785	19,003	184,045	45.24%	-	100.00%
2400	Animal Control Services							
608170	Animal Control Services	211,015	211,015	(17,868)	211,012	100.00%	200,964	5.00%
2400	Animal Control Services Total	211,015	211,015	(17,868)	211,012	100.00%	200,964	5.00%
2500	Public Safety-Other							
501110	Salaries-Regular	106,670	106,670	7,692	89,623	84.02%	61,201	46.44%
502100	Retirement Charges	22,200	22,200	1,878	21,723	97.85%	16,413	32.35%
502105	Workers Comp Insurance	1,550	1,550	128	1,497	96.58%	1,126	32.95%
502110	Health/Life Insurance	5,840	5,840	459	4,842	82.91%	1,430	238.60%
502111	Medical In-Lieu Pay	2,100	2,100	249	2,323	110.62%	1,860	24.89%
502115	Unemployment Insurance	190	190	-	107	56.32%	56	91.07%
502120	Medicare/FICA	1,445	1,445	114	1,332	92.18%	914	45.73%
502130	Other Benefit Charges	15	15	7	81	540.00%	539	-84.97%
602110	Office Expense	1,200	845	-	878	103.91%	1,494	-41.23%
602115	Postage	250	100	-	-	0.00%	-	0.00%
602130	Clothing	4,500	4,500	1,345	2,740	60.89%	5,147	-46.77%
602140	Materials and Supplies	-	1,800	-	1,054	58.56%	-	100.00%
607100	Membership/Dues	-	-	-	490	0.00%	-	100.00%
607115	Training	700	500	-	-	0.00%	-	0.00%
608100	Contractual Services	4,680	4,680	-	4,678	99.96%	4,678	0.00%
612115	Liability Insurance Charge	61,785	72,115	-	67,890	94.14%	18,885	259.49%

^{* =} Actual data is reported through May.

				FY 2023/24		•		
		FY 2023/24 Adopted	FY 2023/24 Amended	Activity	Year to Date		FY 2022/23	% Change From Prior
Acct. No	. Description	Budget	Budget	During May	Actual *	% of Budget	Actual*	Year
	•	buuget	Buuget	During Iviay	Actual	% or budget	Actual	Teal
2500	Public Safety-Other, Continued				2.601	0.000/		100.000/
701105	Equipment-General	-	-	-	3,601	0.00%	-	100.00%
702100	Office Furniture	-	355	-	356	100.28%	-	100.00%
2500	Public Safety-Other Total	213,125	224,905	11,872	203,215	90.36%	113,743	78.66%
4300	Parking Control			40.055	447.004	/	400.000	
501110	Salaries-Regular	141,145	141,145	10,257	117,894	83.53%	109,902	7.27%
502115	Salaries-Overtime	100	100	-	80	80.00%	50	-60.00%
501120	Salaries-Part Time	15,715	29,295	1,850	19,845	67.74%	12,771	55.39%
502100	Retirement	30,545	30,545	2,506	28,810	94.32%	34,109	-15.54%
502105	Workers Comp Insurance	2,340	2,550	202	2,300	90.20%	2,281	0.83%
502110	Health/Life Insurance	16,605	16,730	1,566	15,434	92.25%	8,815	75.09%
502111	Medical In-Lieu Pay	1,200	1,200	75	857	71.42%	2,644	-67.59%
502115	Unemployment Insurance	415	530	13	342	64.53%	260	31.54%
502120	Medicare/FICA	2,175	2,375	174	1,989	83.75%	1,798	10.62%
502130	Other Benefit Charges	95	170	11	124	72.94%	975	-87.28%
602110	Office Expense	3,500	3,500	734	3,960	113.14%	4,080	-2.94%
602115	Postage	500	250	15	173	69.20%	152	13.82%
604100	Communications	680	680	-	362	53.24%	367	-1.36%
608105	Professional Services	31,000	35,500	2,414	25,130	70.79%	18,034	39.35%
612105	Vehicle Replacement Charge	12,035	12,035	1,003	11,032	91.67%	6,110	80.56%
4300	Parking Control Total	258,050	276,605	20,820	228,332	82.55%	195,386	16.86%
6200	Code Enforcement							
501110	Salaries-Regular	422,690	422,690	30,850	360,642	85.32%	340,465	5.93%
502115	Salaries-Overtime	100	100	334	1,569	1569.00%	478	228.24%
501120	Salaries-Part Time	15,715	29,290	1,850	19,845	67.75%	12,771	55.39%
502100	Retirement	88,765	88,765	7,293	84,530	95.23%	96,973	-12.83%
502105	Workers Comp Insurance	6,540	6,750	546	6,354	94.13%	6,500	-2.25%
	•							

^{* =} Actual data is reported through May.

				FY 20	23/24	<u>-</u>		
Acct. No	. Description	FY 2023/24 Adopted Budget	FY 2023/24 Amended Budget	Activity During May	Year to Date Actual *	% of Budget	FY 2022/23 Actual*	% Change From Prior Year
6200	Code Enforcement, Continued			<u> </u>				
502110	Health/Life Insurance	45,470	45,595	4,190	41,596	91.23%	36,936	12.62%
502111	Medical In-Lieu Pay	3,300	3,300	329	3,183	96.45%	3,591	-11.36%
502115	Unemployment Insurance	1,075	1,185	13	714	60.25%	679	5.15%
502120	Medicare/FICA	6,125	6,325	479	5,556	87.84%	5,133	8.24%
502130	Other Benefit Charges	140	215	29	342	159.07%	3,002	-88.61%
602110	Office Expense	2,000	1,354	80	353	26.07%	2,087	-83.09%
602115	Postage	500	1,500	31	1,286	85.73%	844	52.37%
602120	Books/Periodicals	-	-	-	61	0.00%	-	100.00%
602160	Code Enforcement Equipment	6,000	4,200	122	587	13.98%	-	100.00%
603105	Equipment Maintenance	1,000	1,000	-	450	45.00%	-	100.00%
607100	Membership/Dues	600	600	-	500	83.33%	600	16.67%
607115	Training	900	1,100	-	994	90.36%	637	-56.04%
608100	Contractual Services	4,000	3,400	-	1,575	46.32%	3,150	-50.00%
608105	Professional Services	6,000	6,000	259	3,083	51.38%	2,303	33.87%
612105	Vehicle Replacement Charge	12,035	12,035	1,003	11,032	91.67%	19,351	-42.99%
702100	Office Furniture	-	646	-	646	100.00%	-	100.00%
6200	Code Enforcement Total	622,955	636,050	47,408	544,898	85.67%	525,358	3.72%
101	GENERAL FUND TOTAL	\$ 15,992,370	\$ 14,301,430	\$ 615,152	\$ 12,379,534	86.56%	\$ 11,842,848	4.53%
102	General Fund (Transactions & Use Tax)							
2100	Law Enforcement							
608160	O.C.S.D. Contract	4,447,500	5,291,226	685,650	4,605,576	87.04%	3,623,698	27.10%
2100	Law Enforcement Total	4,447,500	5,291,226	685,650	4,605,576	87.04%	3,623,698	27.10%
2200	Fire Protection							
608185	O.C.F.A. Contract	1,500,000	1,500,000	-	1,134,655	75.64%	1,503,218	-24.52%
2200	Fire Protection Total	1,500,000	1,500,000	-	1,134,655	75.64%	1,503,218	-24.52%
102	TRANSACTIONS AND USE TAX TOTAL	\$ 5,947,500	\$ 6,791,226	\$ 685,650	\$ 5,740,231	84.52%	\$ 5,126,916	11.96%
	TOTAL PUBLIC SAFETY	\$ 21,939,870	\$ 21,092,656	\$ 1,300,802	\$ 18,119,765	85.91%	\$ 16,969,764	6.78%

^{* =} Actual data is reported through May.

FY 2023/24 FY 2023/24 % Change FY 2023/24 **Adopted** Amended **Activity** Year to Date FY 2022/23 **From Prior Budget Budget During May** Actual * Acct. No. Description % of Budget Actual* Year **General Fund** 101 3000 **Public Works Administration** \$ 391,825 \$ 391,825 \$ 28,734 \$ 84.43% 501110 Salaries-Regular 330,822 \$ 310,622 6.50% 18,615 76.21% Salaries-Part Time 18,615 1,180 13,543 4.76% 501120 14,187 68,640 68,640 5,970 99.56% 502100 -11.77% **Retirement Charges** 68,339 77,454 **Workers Comp Insurance** 5,920 5,920 502105 500 5,762 97.33% 5,911 -2.52% 502110 Health/Life Insurance 54,220 54,220 5,078 49,899 92.03% 41,534 20.14% 502111 Medical In-Lieu Pay 600 600 27.00% 875 -81.49% 162 502115 895 895 18 531 59.33% 885 -40.00% **Unemployment Insurance** 502120 Medicare/FICA 5,540 5,540 419 4,885 88.18% 4,608 6.01% Other Benefit Charges 502130 195 195 27 311 159.49% 2,739 -88.65% 602110 2,000 2,000 44 42.20% 45.27% Office Expense 844 581 200 200 1 602115 17.00% 148 -77.03% **Postage** 34 200 55.00% 602120 Books/Periodicals 200 110 100.00% 1,750 2.86% 607100 Membership/Dues 1,750 50 1.133 -95.59% Travel/Conference/Meetings 607110 1,800 1,800 59 559 31.06% 1,297 -56.90% 607115 1,000 1,000 907 112.70% 100.00% Training 1,127 612105 Vehicle Replacement Charge 6,020 6,020 502 5,518 91.66% 5,092 8.37% 612115 Liability Insurance Charge 47,640 55,605 52,347 94.14% 30,818 69.86% 3000 **Public Works Administration Total** 87.07% 7.69% 607,060 615,025 43,439 535,487 497,240 3100 **Engineering** Salaries-Regular 105.57% 49.43% 501110 80,040 80,040 5,313 84,501 56,549 501115 Salaries-Overtime 1,500 500 406 892 178.40% 10,832 -91.77% 98,630 501120 Salaries-Part Time 6,939 81,555 82.69% 100.00% 502100 14,515 31,590 23,026 72.89% 14,298 61.04% Retirement 1,562 502105 **Workers Comp Insurance** 2,810 205 2,773 98.68% 1,057 162.35% 1,240

^{* =} Actual data is reported through May.

FY 2023/24 FY 2023/24 % Change FY 2023/24 **Adopted** Amended **Activity** Year to Date FY 2022/23 From Prior **Budget Budget During May** Actual * Acct. No. Description % of Budget Actual* Year 3100 **Engineering, Continued** 502110 Health/Life Insurance 8,855 9,775 755 9,231 94.43% 6,901 33.76% 502111 Medical In-Lieu Pay 0.00% 88 632 159 297.48% 180 405 94.57% 219.17% 502115 Unemployment Insurance 383 120 Medicare/FICA 2,427 502120 2.575 185 94.25% 977 148.41% 1.145 Other Benefit Charges 502130 10 160 11 149 93.13% 505 -70.50% Books/Periodicals 602120 0.00% 159 -100.00% 71.58% 1112.96% 602130 Clothing 915 655 54 602140 Materials & Supplies 2,000 54 4.98% 100.00% 1,085 607100 Membership/Dues 0.00% 350 -100.00% 0.00% 0.00% 608105 **Professional Services** 120,000 **Engineering Services** 608110 206,320 6,885 39.38% -9.48% 206,320 81,246 89,755 15,000 15,000 608115 37.63% 62.21% **Inspection Services** 1,445 5.645 3,480 **Plan Checking Services** 30,000 608120 30,000 9,281 30.94% 11,901 -22.01% 0.00% 0.00% Microfilming 3,000 608135 Vehicle Replacement Charge 7,220 612105 7,220 602 6,618 91.66% 6,110 8.31% 3100 **Engineering Total** 491,025 487,025 24,396 309,068 63.46% 203,207 52.10% 3200 **Public Facilities** 501110 Salaries-Regular 61,760 56,192 5,980 65,900 117.28% 56,691 16.24% Salaries-Overtime 2,000 5,000 91 92.12% 84.83% 501115 4,606 2,492 10,665 14,018 502100 120.52% Retirement 10,317 1,130 12,434 -11.30% **Workers Comp Insurance** 119.03% 5.26% 502105 925 925 100 1,101 1,046 95.07% 502110 Health/Life Insurance 10,235 9,261 991 8,804 7,478 17.73% Medical In-Lieu Pay 468.33% 502111 420 420 196 1,967 88 2135.23% 502115 **Unemployment Insurance** 235 235 219 93.19% 102 114.71% 502120 Medicare/FICA 860 790 90 1,047 132.53% 859 21.89%

^{* =} Actual data is reported through May.

FY 2023/24 FY 2023/24 % Change FY 2023/24 **Adopted** Amended **Activity** Year to Date FY 2022/23 From Prior **Budget Budget** Actual * Acct. No. Description **During May** % of Budget Actual* Year 3200 **Public Facilities, Continued** 502130 Other Benefit Charges 15 15 5 59 393.33% 500 -88.20% 602100 0.00% 2,180 Special Dept Expense 75 -96.56% 46.06% 1864.45% 602110 Office Expense 9.000 9.000 227 4.145 211 0.00% 602125 **Small Tools** 765 -100.00% 68.93% 38.44% Clothing 602130 7,100 7,100 4,894 3,535 602135 Safety Equipment 500 500 96 264 52.80% 154 71.43% 49.05% 602140 Materials & Supplies 10,500 10,500 1,263 5,150 5,323 -3.25% 603105 25,000 62.14% 17.66% **Equipment Maintenance** 15,535 18,868 603110 **Building Maintenance** 127,240 127,240 8,705 88,004 69.16% 92,603 -4.97% 9,000 604100 Communications 9,000 66 3,424 38.04% 4,768 -28.19% 604105 Utilities 175,000 -1.56% 175,000 12,874 144,336 82.48% 146,623 0.00% 607115 -100.00% Training 91 85.10% 608100 **Contractual Services** 170,820 169,610 15,783 144,330 124,698 15.74% 14,700 14,700 611110 O.C. Sanitation District User Fee 3,906 26.57% 13,801 -71.70% 612105 Vehicle Replacement Charge 38,890 38,890 3,241 35,649 91.67% 33,096 7.71% 701105 **Equipment-General** 0.00% -100.00% 119,057 704100 **Facility Improvements** 0.00% 44,546 -100.00% 3200 **Public Facilities Total** 649,865 669,695 50,838 545,849 81.51% 693,593 -21.30% 3300 **Crossing Guard** 46,000 46,000 6,738 43,036 39,940 7.75% 608175 **Crossing Guard Services** 93.56% 3300 6,738 7.75% **Crossing Guard Total** 46,000 46,000 43,036 93.56% 39,940 3400 **Parks Maintenance** 501110 Salaries-Regular 72,420 69,330 5,468 108.69% 19.53% 75,353 63,040 Salaries-Overtime 91.000 73.05% 0.27% 501115 3,000 2,000 1,461 1,457 502100 12,655 12,460 1,030 114.08% 15,430 -7.88% 14,214 Retirement 502105 **Workers Comp Insurance** 1,100 1,100 91 1,258 114.36% 1,165 7.98%

^{* =} Actual data is reported through May.

FY 2023/24 FY 2023/24 % Change FY 2023/24 **Adopted** Amended **Activity** Year to Date FY 2022/23 From Prior Description **Budget Budget During May** Actual * Acct. No. % of Budget Actual* Year 3400 **Parks Maintenance, Continued** 502110 Health/Life Insurance 12,975 12,435 941 84.09% 9,804 6.66% 10,457 502111 510.00% 77.32% Medical In-Lieu Pay 210 210 107 1,071 604 280 280 86.07% 45.18% 502115 Unemployment Insurance 241 166 502120 Medicare/Fica 980 1.020 81 1.125 114.80% 944 19.17% 340.00% -87.79% Other Benefit Charges 5 502130 20 20 68 557 602100 Special Dept Expense 13,000 13,000 7,232 55.63% 3,806 90.02% 603105 **Equipment Maintenance** 17,000 17,000 1,295 4,313 25.37% -39.69% 7,151 604105 Utilities 185,000 185,000 160,205 86.60% 19.41% 21,402 134,159 605100 Land Lease 7,000 7,000 4,026 57.51% 51.30% 2,661 60,620 608100 **Contractual Services** 167,830 183,406 9,237 118,303 64.50% 95.16% 612105 Vehicle Replacement Charge 8.33% 9,630 9,630 803 8,828 91.67% 8,149 3400 503,140 513,851 40,551 408,155 79.43% 31.78% **Parks Maintenance Total** 309.713 3500 Street Maintenance 94,260 90,975 7,184 72.90% 7.37% 501110 61,770 Salaries-Regular 66,324 4,000 89.23% 10.80% 501115 Salaries-Overtime 5,000 70 3,569 3,221 502100 Retirement 16,400 16,195 1,354 12.480 77.06% 15,224 -18.02% 502105 Workers Comp Insurance 1,420 1,420 120 1,108 78.03% 1,145 -3.23% 13,515 12,940 8,588 8,910 502110 Health/Life Insurance 883 66.37% -3.61% 502111 Medical In-Lieu Pay 1,260 1,260 204 2,051 162.78% 1,803 13.75% 502115 **Unemployment Insurance** 350 350 212 60.57% 184 15.22% 502120 Medicare/FICA 1,330 1,290 107 1,039 80.54% 968 7.33% 502130 Other Benefit Charges 25 25 6 240.00% -89.03% 60 547 602100 0.00% -100.00% Special Dept Expense 2,288 0.00% 602125 **Small Tools** 6,000 6,000 582 -100.00% 40,214 602140 Materials & Supplies 65,000 65,000 5,428 61.87% 40,493 -0.69% **Equipment Maintenance** 0.00% 1,210 603105 -100.00%

^{* =} Actual data is reported through May.

FY 2023/24 FY 2023/24 % Change FY 2023/24 **Adopted** Amended **Activity** Year to Date FY 2022/23 From Prior **Budget** Actual * Acct. No. Description Budget **During May** % of Budget Actual* Year 3500 **Street Maintenance, Continued** 608100 **Contractual Services** 210,750 232,409 14,507 168,744 72.61% 158,928 6.18% 612105 11,735 978 91.67% 9,928 8.35% Vehicle Replacement Charge 11,735 10,757 710190 50,000 50,000 211 25.52% -62.29% **Pavement Maintenance** 12,762 33,838 3500 477,045 493,599 31,052 327,908 66.43% 341,039 -3.85% **Street Maintenance Total** 3600 **Storm Drain Maintenance** -100.00% 501115 0.00% Salaries-Overtime 179 502120 Medicare/FICA 0.00% 3 -100.00% 0.00% 603100 **Emergency Maintenance Services** 10.000 10,000 23.698 -100.00% **Contractual Services** 608100 0.00% 500 -100.00% 608155 160,800 194,365 21,126 84.05% 134,980 21.03% Storm Water Monitor Program 163,364 2.51% 3600 **Storm Drain Maintenance Total** 170,800 204,365 21,126 163,364 79.94% 159,360 6300 **Graffiti Abatement** 501110 60,690 44.95% 26,920 1.33% Salaries-Regular 61,650 2,476 27,279 6,000 -0.37% 501115 Salaries-Overtime 6,000 647 7,067 117.78% 7,093 48.40% -23.98% 502100 **Retirement Charges** 10,640 10,580 464 5,121 6,736 502105 Workers Comp Insurance 915 915 41 456 49.84% 508 -10.24% Health/Life Insurance 502110 6,450 6,282 237 1,955 31.12% 4.022 -51.39% Medical In-Lieu Pay 1,890 502111 1,890 175 1,764 93.33% 263 570.72% 502115 **Unemployment Insurance** 235 235 98 41.70% 102 -3.92% 502120 Medicare/FICA 870 858 48 523 60.96% 497 5.23% 502130 Other Benefit Charges 15 15 2 25 166.67% 243 -89.71% 602140 Materials & Supplies 25,000 25,000 69.00% 4.50% 2,680 17,249 16,506 603105 **Equipment Maintenance** 413 13.92% -53.19% 5,000 5,000 696 1,487 612105 Vehicle Replacement Charge 11,135 11,135 928 10,207 91.67% 9,419 8.37% 8,111 6300 **Graffiti Abatement Total** 129,800 128,600 72,440 56.33% 73,796 -1.84% 76.16% 3.77% \$ 3,074,735 \$ 3,158,160 \$ 226,251 \$ 2,405,307 \$ 2,317,888 **TOTAL PUBLIC WORKS**

^{* =} Actual data is reported through May.

Community Development-Landavazo May 2024 General Fund Expenditures (92% of year)

FY 2023/24 FY 2023/24 FY 2023/24 % Change **Adopted Amended Activity** Year to Date % of FY 2022/23 From **Budget** Actual* Acct. No. Description **Budget During May** Actual * **Budget Prior Year** 101 **General Fund** 4000 **Community Development Administration** Salaries-Regular \$ 236.115 \$ 501110 242,125 \$ 17,324 \$ 147.658 62.54% 127,054 16.22% 501115 Salaries-Overtime 200 149 149 74.50% 1141.67% 12 502100 41.685 3.664 31.161 74.75% 31.901 -2.32% **Retirement Charges** 42.145 5.47% 502105 Workers Comp Insurance 3,460 3,460 289 2,466 71.27% 2,338 Health/Life Insurance 20,225 19,820 502110 994 9,107 45.95% 7,406 22.97% 502111 Medical In-Lieu Pay 944 40.78% 1556.14% 4,200 2,315 407 57 **Unemployment Insurance** 502115 425 425 98 232 54.59% 148 56.76% 18.62% 502120 Medicare/FICA 3.290 3.225 256 2.153 66.76% 1.815 Other Benefit Charges 85.81% -88.10% 502130 30 155 16 133 1,118 2,500 602110 Office Expense 3,850 681 3,099 80.49% 760 -307.76% 602120 **Books/Periodicals** 99.53% 14 -2921.43% 1,200 425 423 Membership/Dues -32.43% 607100 1,600 1,600 125 7.81% 185 607115 1,200 0.00% -100.00% **Training** 1,200 10 Vehicle Replacement Charge 612105 1,045 1,045 87 958 91.67% 885 8.25% 50.98% 612115 Liability Insurance Charge 66,445 77,555 73,012 94.14% 48,358 -100.00% 702100 Office Furniture 0.00% 217 4000 **Community Development Administration Total** 271,620 22.20% 389,890 393,075 23,965 69.10% 222,278 4100 **Planning** 330,230 11,261 14.30% 501110 Salaries-Regular 358,595 186,684 56.53% 163,328 501115 Salaries-Overtime 1,200 2,400 768 1.514 63.08% 652 132.21% 501125 9,000 9,000 692 2.67% Salaries-Appointed 7,961 88.46% 7,754 -13.29% 502100 65,970 57,370 2,133 34,685 60.46% 40,003 Retirement 55.33% 3.69% 502105 Workers Comp Insurance 5,635 5,635 188 3,118 3,007 24,356 502110 Health/Life Insurance 51,160 2,618 56.17% 21,392 13.86% 43,360

^{* =} Actual data is reported through May.

Community Development-Landavazo May 2024 General Fund Expenditures (92% of year)

FY 2023/24 FY 2023/24 FY 2023/24 % Change **Adopted Activity** Year to Date **Amended** % of FY 2022/23 From Description **Budget** Actual* Acct. No. **Budget During May** Actual * **Budget Prior Year** 4100 Planning, Continued 502115 **Unemployment Insurance** 38.13% 17.57% 1,120 1,120 87 427 518 Medicare/FICA 3,680 502120 5,280 187 2,851 77.47% 2,480 14.96% 502111 Medical In-Lieu Pay 2,000 850 42.50% 450 88.89% 249 502130 Other Benefit Charges 805 305 10 168 55.08% -88.32% 1.438 -100.00% 602110 Office Expense 0.00% 270 500 602115 Postage 500 76 647 129.40% 30 100.00% 602140 Materials & Supplies 0.00% -100.00% 115 Membership/Dues 607100 1,200 1,200 120 10.00% 100.00% 607110 Travel/Conference/Meetings 8,200 8,200 3.66% 55.22% 300 670 100.00% 47.14% 607115 **Training** 1,050 1,050 495 215,970 608105 **Professional Services** 48,036 48,036 22.24% 16,265 -195.33% 0.00% 0.00% 608135 Microfilming 4,000 Vehicle Replacement Charge 8.28% 612105 2,025 2,025 169 1,856 91.65% 1,714 4100 **Planning Total** 684,470 22.39% 515,740 66,474 314,068 45.88% 256,604 4200 **Building Regulation** 501110 Salaries-Regular 138,300 54,520 4,289 49,017 89.91% 26,576 84.44% 501115 Salaries-Overtime 100 42 42.00% 100.00% 502100 18,825 49.32% 45.67% Retirement 25,975 812 9,285 6,374 Workers Comp Insurance 2,160 67.48% 502105 2,160 72 819 37.92% 489 -50.27% 502110 1,255 Health/Life Insurance 22,625 105 1,099 87.57% 2,210 Medical In-Lieu Pay 4,200 4,200 502111 350 3.675 87.50% 229.30% 1.116 502115 **Unemployment Insurance** 450 126 28.00% 100.00% 450 Medicare/FICA 502120 2,030 835 67 765 91.62% 402 90.30% Other Benefit Charges 88.00% -81.20% 502130 30 50 4 44 234 602110 Office Expense 0.00% 95 -100.00%

^{* =} Actual data is reported through May.

Community Development-Landavazo May 2024 General Fund Expenditures (92% of year)

FY 2023/24 FY 2023/24 FY 2023/24 % Change **Adopted Activity** % of **Amended** Year to Date FY 2022/23 From **Budget** Acct. No. Description **Budget During May** Actual * **Budget** Actual* **Prior Year** 4200 **Building Regulation, Continued** 602115 200 200 88.00% 10.00% **Postage** 12 176 160 0.00% 0.00% 602120 **Books/Periodicals** 1,000 607100 Membership/Dues 0.00% 0.00% 1,200 1,200 607110 Travel/Conference/Meetings 500 500 0.00% 0.00% 607115 1,000 3.50% 100.00% **Training** 1,000 35 **Inspection Services** 393,725 608115 280,250 22,473 160,346 40.73% 14,700 990.79% 608120 Plan Checking Services 635.66% 110,000 110,000 18,582 93,473 84.98% 12,706 608130 Temporary Help 110,528 0.00% -100.00% Microfilming 608135 0.00% 0.00% 4,000 61.02% 88.86% 611116 Payment to Other Agencies 2,250 2,250 144 1,373 727 Vehicle Replacement Charge 6,020 6,020 91.66% -45.82% 612105 502 5,518 10,184 4200 **Building Regulation Total** 597,290 75.83% 602,190 47,412 325,793 54.55% 185,293 4400 **Economic Development** 607100 Membership/Dues 2,000 1,865 319 17.10% 570 -44.04% 0.00% 607115 **Training** 2,500 0.00% **Contractual Services** 100.57% 608100 3,000 3,000 3,017 100.00% 5,000 0.00% 0.00% 609100 **Special Events** 5,000 **Economic Development Total** 4400 12,500 772.98% 12,500 2,836 6,172 49.38% 707 TOTAL COMMUNITY DEVELOPMENT \$ 1,520,320 \$ 1,687,335 140,687 917,653 38.02% 54.38% 664,882

^{* =} Actual data is reported through May.

Community Service - Bobadilla May 2024 General Fund Expenditures (92% of year)

FY 2023/24 FY 2023/24 FY 2023/24 % Change **Adopted** From Prior **Amended Activity** Year to Date FY 2022/23 Acct. No. Description **Budget Budget During May** Actual * % of Budget Actual* Year 101 **General Fund** 5000 **Public Information Office** \$ 87.480 \$ 87,480 \$ 2.397 \$ 82.94% \$ 5.37% 501110 Salaries-Regular 72.557 68,859 15,800 454 86.42% 17,022 -19.79% 502100 **Retirement Charges** 15,800 13,654 502105 Workers Comp Insurance 1,340 1,340 40 1,212 90.45% 1,267 -4.34% 502110 Health/Life Insurance 3,455 262 3,053 88.36% 2,835 7.69% 3,455 502111 Medical In-Lieu Pay 4,200 4,200 3,325 79.17% 3,675 -9.52% 502115 **Unemployment Insurance** 280 280 157 56.07% 289 -45.67% 502120 Medicare/FICA 1,100 83.65% 4.56% 1,315 1,315 35 1,052 502130 Other Benefit Charges 20 20 2 (108)-540.00% 606 -117.82% 80.88% -29.62% 602113 Social Media 2,500 2,500 409 2,022 2,873 607100 Membership/Dues 250 250 275 110.00% 100.00% 608105 **Professional Services** 71.63% 100.00% 80,200 57.450 _ 5000 **Public Information Office** 116,640 196,840 3,599 154,697 78.59% 98,478 57.09% 5100 **Community Services Administration** 82.63% 501110 Salaries-Regular 352,685 352,685 26,229 291,421 261,110 11.61% 501120 Salaries-Part Time 23,185 23,185 455 17,347 74.82% 2.478 600.04% 502100 68,035 68,035 5,932 96.50% -8.17% Retirement 65,657 71,502 502105 Workers Comp Insurance 5,405 5,405 446 5,156 95.39% 4,882 5.61% Health/Life Insurance 31,020 31,020 3,075 93.51% 16.85% 502110 29,007 24,824 502111 Medical In-Lieu Pay 6,600 6,600 500 5,665 85.83% 5,063 11.89% 56.07% 13.77% 502115 **Unemployment Insurance** 840 840 471 414 86.80% 18.92% 502120 Medicare/FICA 393 5,135 5,135 4,457 3,748 502130 Other Benefit Charges 190 325 24 278 85.54% 2,300 -87.91% 602100 62.56% 22.32% Special Dept Expense 15,600 20,400 4,017 12.763 10,434 602110 Office Expense 3.185 3.485 1.261 3,508 100.66% 2.650 32.38% 602115 Postage 600 600 14 257 42.83% 489 -47.44% 607100 Membership/Dues 550 870 870 100.00% 605 43.80%

^{* =} Actual data is reported May.

Community Service - Bobadilla May 2024 General Fund Expenditures (92% of year)

FY 2023/24 FY 2023/24 FY 2023/24 % Change **Adopted** From Prior **Amended Activity** Year to Date FY 2022/23 Acct. No. Description **Budget Budget During May** Actual * % of Budget Actual* Year 5100 **Community Services Administration, Continued** 607115 280 78.01% 53.34% 6.135 3.888 3,033 6.500 **Training** 603110 **Building Maintenance** 11,450 9,530 450 6,525 68.47% 7,300 -10.62% 609100 **Special Events** 71,600 85,850 11,042 60,783 70.80% 19,253 215.71% Vehicle Replacement Charge 91.66% 8.34% 612105 14,025 14,025 12,856 11,866 1,169 612115 Liability Insurance Charge 44,160 51,545 48,525 94.14% 67,432 -28.04% 5100 **Community Services Administration Total** 56,090 83.31% 13.23% 660,400 683,423 569,382 502,850 5200 **Community Center Operations** 39,300 69,610 4,974 66.83% 85.00% 501110 Salaries-Regular 46,522 25,147 252 168.00% 501115 Salaries-Overtime 150 117 100.00% 501120 Salaries-Part Time 61,140 37,350 240 49.20% 35,978 -48.92% 18,378 502100 972 10,085 67.41% 10.44% Retirement 15,240 14,960 9,132 502105 Workers Comp Insurance 1,555 1,725 87 1,084 62.84% 1,125 -3.64% 84.54% 141.05% 502110 Health/Life Insurance 6,010 11,225 981 9,490 3,937 502111 Medical In-Lieu Pay 930 1,155 92 1,016 87.97% 2,204 -53.90% 502115 **Unemployment Insurance** 460 450 311 69.11% 268 16.04% 502120 59.87% 3.05% Medicare/FICA 1,430 1,580 76 946 918 502130 Other Benefit Charges 140 90 5 64.44% -75.73% 58 239 107 58.04% 9.63% 602100 Special Dept Expense 4,000 5,000 2,902 2,647 602110 Office Expense 1,000 1,000 100 739 73.90% 695 6.33% 65.04% -30.75% 603110 **Building Maintenance** 3,400 2,400 150 1,561 2,254 **Professional Services** 100.00% 608105 155,830 3,473 37,698 24.19% Vehicle Replacement Charge 0.00% -100.00% 612105 362

302,525

81,625

2,500

225,650

11,374

4,783

15,567

43.32%

93.23%

85.40%

81.03%

131,042

76,101

182,855

2,135

84,906

68,963

112,776

1,223

54.34%

10.35%

74.57%

62.14%

134,605

81,625

225,650

Community Center Operations

Park Operations

Salaries-Regular

Salaries-Overtime

Salaries-Part Time

5200

5300

501110

501115

501120

^{* =} Actual data is reported May.

Community Service - Bobadilla May 2024 General Fund Expenditures (92% of year)

FY 2023/24 FY 2023/24 FY 2023/24 % Change **Adopted** From Prior **Amended Activity** Year to Date FY 2022/23 Acct. No. Description **Budget** Budget **During May** Actual * % of Budget Actual* Year 5300 Park Operations, Continued 502100 Retirement 14,300 906 92.96% -21.07% 14,300 13,293 16,841 502105 Workers Comp Insurance 4.685 4,685 340 4,325 92.32% 3.344 29.34% 502110 Health/Life Insurance 13,010 13,010 969 8,945 68.75% 8,981 -0.40% Medical In-Lieu Pay 83.25% 76.62% 502111 5,300 5,300 369 4,412 2,498 502115 **Unemployment Insurance** 2,685 2,685 104 1,413 52.63% 1,110 27.30% 502120 86.61% 43.23% Medicare/FICA 4,445 4,445 300 3,850 2,688 502130 Other Benefit Charges 1,665 975 18 233 23.90% 663 -64.86% 602100 Special Dept Expense 4,000 4,000 1,336 3,543 88.58% -34.03% 5,371 602110 3,000 37.27% 46.91% Office Expense 3,000 455 1,118 761 5300 **Park Operations** 360,365 362,175 25,147 302,223 83.45% 225,219 34.19% 5400 Senior Citizens Programs 501110 Salaries-Regular 19,650 0.00% 15,418 -100.00% 97.76% 8.77% Salaries-Part Time 41,753 501120 46,455 46,455 3,808 45,415 502100 Retirement 3,575 2,130 0.00% 3,811 -100.00% 985 64 76.95% 502105 Workers Comp Insurance 985 758 1.052 -27.95% 0.00% 502110 Health/Life Insurance 3,130 3,130 2,347 -100.00% 502111 Medical In-Lieu Pay 960 960 110.63% -16.71% 92 1.062 1.275 58.55% -41.02% 502115 **Unemployment Insurance** 415 415 243 412 502120 Medicare/FICA 920 920 57 674 73.26% 847 -20.43% 16.73% -73.89% 3 502130 Other Benefit Charges 245 245 41 157 7.76% -85.84% 609200 Senior Citizen Program 1,200 1,700 (92)132 932 -28.94% 5400 77,535 48,325 84.87% 68,004 Senior Citizens Programs 56,940 3,932 5500 **Recreation Programs** 10.93% 100.00% 602110 Office Expense 1,200 2,700 295 602115 Postage 10,030 11.745 11.745 100.00% 10.334 13.65% 602150 **Recreation Brochure Mailing** 30,600 31,132 7,364 31,132 100.00% 29,578 5.25% 608150 **Contractual Recreation Program** 63,400 64,250 4,552 52,326 81.44% 26.655 96.31% 5500 **Recreation Programs** 105,230 109,827 11,916 95,498 86.95% 66,567 43.46% \$ 1,454,775 1,711,730 112,058 1,301,167 76.01% 1,046,024 24.39% TOTAL COMMUNITY SERVICES

^{* =} Actual data is reported May.

Transfers to Other Funds-Bannigan May 2024 General Fund Expenditures (92% of year)

					 FY 20	U Z 3	/24			
Acct. No	Description	Α	2023/24 dopted Budget	Y 2023/24 Amended Budget	Activity uring May	Υ	ear to Date Actual *	% of Budget	2022/23 Actual*	% Change From Prior Year
101	General Fund									
1600	Non-Departmental									
800250	Transfer to FACT Grant	\$	46,865	\$ 75,020	\$ 397	\$	21,918	29.22%	\$ 35,620	-38.47%
800251	Transfer to Senior Transportation Fund		9,420	1,420	-		69	4.86%	6,456	-98.93%
800280	Transfer to SCP Maintenance Fund		64,775	64,775	5,398		59,377	91.67%	54,267	9.42%
800305	Transfer to Capital Projects Fund		660,000	1,484,916	52,920		228,081	15.36%	-	100.00%
	TOTAL TRANSFERS OUT	\$	781,060	\$ 1,626,131	\$ 58,715	\$	309,445	19.03%	\$ 96,343	221.19%

^{* =} Actual data is reported through May.

ATTACHMENT: C

Click here to return to the agenda.

City of Stanton GENERAL FUND DISCRETIONARY FUND BALANCE

		Fiscal Year 2023/24		Projected Ending
	Balance	Increase		Balance
	7/1/2023 (A)	(Decrease)	Adjustments	6/30/2024
GENERAL FUNDS				
General Fund (#101)				
Unassigned	\$ 12,890,227	\$ 3,557,932	\$ -	\$ 16,448,159
Reserve - Continuing Appropriations (Carryovers)	1,328,850	(1,328,850)	-	-
Reserve - Prepaid Items	150,708	(150,708)	-	-
Reserve - Economic Uncertainty (1)	6,100,000	-	-	6,100,000
Reserve - Emergency Disaster Continuity (1)	3,000,000	-	-	3,000,000
Reserve - Capital Improvement (1)	5,000,000	-	-	5,000,000
Reserve -Equipment and Maintenance (1)	150,000	-	-	150,000
Reserve -Technology Equipment (1)	150,000	-	-	150,000
Committed by Developer Agreements for Public Benefit/Public Facilities (2)	1,507,796	330,650	(1,838,446)	-
Committed by Developer Agreements for Beautification Projects (2)	190,000	50,000	(240,000)	-
Committed by Developer Agreements for Neighborhood Preservation (2)	108,000	6,000	(114,000)	-
Assigned for Special Projects (3)	4,975,672	(2,213,580)	-	2,762,092
Total General Fund	35,551,253	251,444	(2,192,446)	
Transaction & Use Tax Fund (#102)				
Unassigned	868,256	(868,256)		-
Total Transaction & Use Tax Fund	868,256	(868,256)	-	-
TOTAL	\$ 36,419,509	\$ (616,812)	\$ (2,192,446)	\$ 33,610,251

Notes:

- (A) Per City's audited financial statements as of June 30, 2023.
- (1) Per City Council Reserve Policy adopted annually.
- (2) Pursuant to approved developer agreements, this amount represents public benefit fees the City received that should be used for the following projects relating to: public facilities, neighborhood preservation, and city beautification/enhancement. The City Council authorized the transfer of these funds to 3 new separate funds on June 11, 2024.
- (3) Assigned by City Council on June 13, 2023.

ATTACHMENT D Page 1 of 2

Click here to return to the agenda.

HOUSING AUTHORITY FUND (#285) May 2024 Revenues and Expenditures (92% of year)

				FY 20	023/24			
		FY 2023/24	FY 2023/24					% Change
Account		Adopted	Amended	Activity	Year to Date		FY 2022/23	From Prior
No.	Description	Budget	Budget	During May	Actual *	% of Budget	Actual *	Year
REVENUE								
	Interest	\$ 25,000	\$ 275,000		\$ 292,202	106.26%	\$ 171,595	70.29%
435110	•	-	-	10,890	147,748	0.00%	72,069	105.01%
436140	Tina Way/Pacific Ave. Property Rent	620,000	650,000	47,703	574,223	88.34%	614,045	-6.49%
	Other Revenue	-	-	-	-	0.00%	213	-100.00%
TOTAL RE	VENUES	\$ 645,000	\$ 925,000	\$ 58,593	\$ 1,014,173	109.64%	\$ 857,922	18.21%
EXPENDIT	TURES AND OTHER USES							
Salaries a	nd Benefits							
501110	Salaries-Regular	142,795	143,680	9,168	113,751	79.17%	114,787	-0.90%
501115	Salaries-Overtime	-	-	-	-	0.00%	40	-100.00%
501120	Salaries-Part-Time	2,435	2,435	123	1,988	81.64%	1,907	4.25%
502100	Retirement	25,990	25,990	1,948	23,914	92.01%	30,566	-21.76%
502105	Workers' Compensation	2,160	2,160	155	1,933	89.49%	2,147	-9.97%
502110	Health/Life Insurance	14,425	14,210	1,279	13,549	95.35%	11,827	14.56%
502111	Medical in Lieu	470	645	33	269	41.71%	347	-22.48%
502115	Unemployment Insurance	250	250	-	151	60.40%	248	-39.11%
502120	Medicare/FICA	1,965	1,980	122	1,543	77.93%	1,554	-0.71%
502125	Leave Disbursals	-	-	-	-	0.00%	(1,638)	0.00%
502130	Other Benefits	30	70	8	104	148.57%	1,011	-89.71%
Total-Sala	aries and Benefits	190,520	191,420	12,836	157,202	82.12%	162,796	-3.44%
Maintena	nce and Operations							
602100	Special Dept Expense	500	500	100	431	86.20%	274	57.30%
602115	Postage	500	100	-	28	28.00%	51	-45.10%
602130	Clothing	2,500	2,500	304.000	1,249	49.96%	2,937	-57.47%
602140	Materials and Supplies	2,500	2,500	(344)	1,832	73.28%	1,502	21.97%
604105	Utilities	60,000	60,000	3,851	47,325	78.88%	45,121	4.88%
607100	Membership Dues	4,800	4,800	-	-	0.00%	-	0.00%
607110	Travel/Conference/Meetings	1,000	1,000	-	-	0.00%	-	0.00%
607115	Training	2,500	2,500	-	-	0.00%	-	0.00%
608100	_	23,000	16,260	2,338	16,260	100.00%	17,510	-7.14%

HOUSING AUTHORITY FUND (#285) May 2024 Revenues and Expenditures (92% of year)

FY 2023/24 FY 2023/24 FY 2023/24 % Change Adopted **Amended Activity** Year to Date FY 2022/23 From Prior **Account** No. Description **Budget** Budget **During May** Actual * % of Budget Actual * Year Maintenance and Operations, Continued 608105 Professional Services 97.80% 328,875 477,565 14,587 325,413 68.14% 164,520 206,475 610130 Tina Pacific Operating Expense (QMG) 243,825 5,197 149,581 72.45% 212,993 -29.77% 610131 Bad Debt Expense (QMG) 40,000 75,505 7,670 72,395 95.88% 33,908 113.50% 40,000 4,283,000 17,942 354,031 610135 Relocation Assistance 8.27% 19,386 1726.22% 95,000 56,338 610230 Navigation Center (North SPA) 95,000 59.30% 100.00% 611110 O.C. Sanitation User Fee 24,295 24,292 24.68% 24,000 99.99% 19,484 **Total-Maintenance and Operations** 102.67% 869,000 5,252,000 51,645 1,049,175 19.98% 517,686 **Allocated Charges** 612105 Vehicle Replacement Charge 12,305 12,305 1,025 11,280 91.67% 5,321 111.99% 612115 Liability Insurance Charge 8,690 10,145 9,551 94.14% 6,540 46.04% 612140 Information Technology Charge 5.49% 19,215 19,215 1,601 17,614 91.67% 16,697 614205 Admin Overhead 20,980 -4.90% 20,980 1,596 20,761 98.96% 21,830 **Total-Allocated Charges** 61,190 62,645 4,222 59,206 94.51% 50,388 17.50% **Capital Outlay** 702100 Office Furniture 0.00% 218 -100.00% 760100 Demolition/Condemnation 0.00% -100.00% 100,000 93,800 790100 Land Acquisition 0.00% -100.00% 2,500,000 **Total-Capital Outlay** 100,000 0.00% 2,594,018 -100.00% TOTAL EXPENDITURES 5,506,065 *68,703* \$ \$ 1,220,710 \$ 1,265,583 3,324,888 \$ 22.99% -61.94% REVENUES OVER (UNDER) EXPENDITURES (575,710) \$ (4,581,065) \$ (10,110) \$ (251,410)(2,466,966)

^{* =} Actual data is reported through May.

ATTACHMENT E

Click here to return to the agenda.

Housing Authority Fund (Fund 285) - Fund Balance Status

Available Fund Balance as of June 30, 2023 \$ 9,838,500

Estimated increase (decrease) of fund balance during Fiscal Year 2023-24

(4,541,065)

Projected Available Fund Balance as of June 30, 2024

\$ 5,297,435

ATTACHMENT F Page 1 of 2 Click here to return to the agenda.

CITY OF STANTON FY 2023/24 STATUS OF CAPITAL IMPROVEMENT PROJECTS (CIP) JULY 1, 2023 THROUGH MAY 31, 2024

			Adopted	F	Y 2022/23						YTD			% Spent		
			Budget		Budget		Other Budget		Amended		Actual			(Includes	F	Remaining
Task Code			2023/24		Carryover		Adjustments	Bu	dget 2023/24		2023/24	En	cumbrances	Encumbrances)		Budget
Street Proj		_								_			45.000	10.00/		
	Citywide Street Sign Replacement	\$	-	\$	149,490	\$	=	\$	149,490	Ş	-	\$	15,300	10.2%	\$	134,190
2023-101	Citywide Street Rehabilitation (FY 2022/23)		-		2,013,050		-		2,013,050		147,763		1,194,603	66.7%		670,684
2022 402	Catch Basin Connector Pipe Screen Installations				60.035		7.000		76.025		42.045		24.460	07.60/		1.000
	(FY 2022/23)		-		69,935		7,000		76,935		43,915		31,160	97.6%		1,860
	Citywide Street Rehabilitation (FY 2023/24)		1,690,000		-		-		1,690,000		67,555		77,416	8.6%		1,545,029
	Cerritos Avenue Resurfacing		930,000	_	-	_	30,000	_	960,000	_	864,892		89,265	99.4%	_	5,843
Total Stree	t Projects	\$	2,620,000	\$	2,232,475	Ş	37,000	\$	4,889,475	\$	1,124,125	Ş	1,407,744	51.8%	\$	2,357,606
Parks Proje	ects															
-	Park Master Plan	\$	-	\$	8,306	\$	-	\$	8,306	\$	(1,954)	\$	-	0.0%	\$	10,260
2022-201	Family Resource Center Improvements (Phase 1)	•	-	·	196,639	·	3,005	·	199,644	·	127,362	•	-	63.8%	·	72,282
2022-204	Norm Ross Sports Park		2,000,000		7,566,660		-		9,566,660		211,640		375,200	6.1%		8,979,820
	Replace Shade Structure at Stanton Central Park		-		58,360		-		58,360		735		47,245	82.2%		10,380
2022-206	Premier Park Renovation		840,000		764,875		-		1,604,875		13,665		1,376,749	86.6%		214,461
	Stanton Park Adult Fitness Equipment		90,000		84,090		-		174,090		80,282		7,950	50.7%		85,858
2022-833	Stanton Park Refresh		-		410,000		-		410,000		-		290,840	70.9%		119,160
2023-201	Family Resource Center Improvements (Phase 2)		150,000		203,055		10,004		363,059		108,890		6,002	31.6%		248,168
2024-601	Stanton Central Park Lighting Project		76,000		-		-		76,000		-		-	0.0%		76,000
Total Parks	s Projects	\$	3,156,000	\$	9,291,985	\$	13,009	\$	12,460,994	\$	540,620	\$	2,103,986	21.2%	\$	9,816,389
Carren																
Sewer	Sewer Master Plan Update	\$		\$	488,200	۲		\$	400 200	۲	175,785	۲	200 041	99.3%	\$	2 474
	Annual Sewer Rehabilitation (FY 2023/24)	Ş	- 550,000	Ş	488,200	Ş	-	Ş	488,200 550,000	Ş	1/5,/85	Ş	308,941		Ş	3,474
Total Sewe		Ś	550,000	ć	488,200	ċ	-	Ś	1,038,200	Ś	175,785	ċ	308,941	0.0% 46.7%	Ś	550,000 553,474
TOTAL SEWE	:1	Ą	330,000	Ą	400,200	Ą	-	Ą	1,030,200	Ą	1/3,/63	Ģ	300,341	40.7%	Ą	333,474
Facilities																
2022-834	City Fire Alarm Upgrade Project	\$	-	\$	173,015	\$	-	\$	173,015	\$	69,957	\$	102,932	99.9%	\$	126
2022-839	ADA Transition Plan		-		33,595		-		33,595		21,930		10,965	97.9%		700
2023-603	Stanton Community Center Improvements		-		500,000		-		500,000		136,506		140,478	55.4%		223,016
Total Facili	ties	\$	-	\$	706,610	\$	-	\$	706,610	\$	228,393	\$	254,375	68.3%	\$	223,842
C1 D																
Storm Drai		,	600.000	<u>,</u>		,		<u>,</u>	500.000	,	00.040	,	502.022	00.00/	,	6 4 4 2
	Storm Drain Master Plan	\$	600,000	\$	-	\$	-	\$	600,000	\$	89,919	\$	503,938	99.0%	\$	6,143
	Stanford Avenue Storm Drain Repair	<u>,</u>	60,000	,	-	_	-	,	60,000	_	48,229	_	-	0.0%		11,771
Total Storn	n Drain	\$	660,000	Ş	-	\$	-	\$	660,000	\$	138,148	\$	503,938	97.3%	\$	17,914
GRAND TO	TAL	\$	6,986,000	\$	12,719,270	\$	50,009	\$	19,755,279	\$	2,207,071	\$	4,578,984	34.4%	\$	12,969,225

ATTACHMENT F Page 2 of 2

CITY OF STANTON FY 2023/24 STATUS OF CAPITAL IMPROVEMENT PROJECTS (CIP) JULY 1, 2023 THROUGH MAY 31, 2024

		Adopted	FY 2022/23			YTD		% Spent	
		Budget	Budget	Other Budget	Amended	Actual		(Includes	Remaining
Task Code	Description	2023/24	Carryover	Adjustments	Budget 2023/24	2023/24	Encumbrances	Encumbrances)	Budget
Funding So	<u>urce</u>								
101	General Fund Assigned Fund Balance	\$ 660,000	\$ 824,916	\$ -	\$ 1,484,916	\$ 228,081	\$ 908,675	76.6%	\$ 348,160
211	Gas Tax Fund	638,710	286,240	207,000	1,131,950	9,643	183,537	17.1%	938,770
215	RMRA Fund	956,695	983,465	15,000	1,955,160	162,763	965,596	57.7%	826,801
220	Measure M Turnback Fund	824,595	906,770	15,000	1,746,365	917,447	234,741	66.0%	594,177
221	CDBG-CV Grant Fund	-	500,000	=	500,000	136,506	140,478	55.4%	223,016
227	Other Grants Fund	276,000	8,027,691	(189,996)	8,113,695	354,282	607,048	11.8%	7,152,366
305	Capital Projects Fund (Reserves)	-	89,360	3,005	92,365	31,735	47,245	85.5%	13,385
310	Park In-Lieu Fund	3,080,000	612,628	-	3,692,628	190,829	1,182,723	37.2%	2,319,076
501	Sewer Maintenance Fund	440,155	488,200	109,845	1,038,200	175,785	308,941	46.7%	553,474
502	Sewer Capital Improvement Fund	109,845	-	(109,845)	-	-	-	0.0%	-
GRAND TO	TAL	\$ 6,986,000	\$ 12,719,270	\$ 50,009	\$ 19,755,279	\$ 2,207,071	\$ 4,578,984	34.4%	\$ 12,969,225

ATTACHMENT: G

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CA License #668417 DIR #1000001749

2200 S. Yale St. Santa Ana, CA 92704 (714) 540-1700 Office (714) 540-1709 Fax

To:		City Of Stanton	Contact:	Manuel Armenta	
Address:	:	7800 Katella Avenue	Phone:	(714) 890-4204	
		City Of Stanton, CA 90680	Fax:		
Project I	Name:	City Of Stanton Sinkhole Repair	Bid Number:	2024.085	,
Project L	Location:	12462 Santa Rosalia St, Stanton, CA	Bid Date:	6/11/2024	
Line #	Item #	Item Description	Estimated Quant	ity Unit	Total Price
	1.01	Traffic Control From 6/6/24 - 6/14/24 24 Hour Closure	9	.00 EACH	\$22,500.00
÷	1.02	6/6/24 Sawcut Asphalt, Remove Existing Asphalt And Dirt To Find Solid Bottom Approximately 9' In Depth, Slurry Backfill	500	.00 SF	\$9,925.30
	1.03	6/14/24 Base Pave 25'x20' 9" In Depth, Remove Traffic Control An Open Lane Back Up To Traffic	d 500	.00 SF	\$10,383.90
	1.04	6/21/24 Grind And Cap With Rubberized Asphalt Including Traffic Control For Single Lane Closure	500	.00 SF	\$12,992.20

Total Bid Price: \$55,801.40

Payment Terms:

Payment terms are 30 days from invoice. Interest charges may apply if payment is not received within 30 days.

ACCEPTED: The above prices, specifications and conditions are satisfactory and hereby accepted.	CONFIRMED: Ben's Asphalt, Inc
Buyer:	
Signature:	Authorized Signature:
Date of Acceptance:	Estimator: Daniel Applegarth

Item: 9G

Click here to return to the agenda.

CITY OF STANTON

REPORT TO CITY COUNCIL

TO: Honorable Mayor and Members of the City Council

DATE: July 9, 2024

SUBJECT: ACCEPTANCE OF THE STANTON CENTRAL PARK SHADE

STRUCTURE INSTALLATION PROJECT

REPORT IN BRIEF:

The Stanton Central Park Shade Structure Installation Project consisting of installing a single-post shade structure and all appurtenant work at Stanton Central Park is now complete. The final construction cost for the project was \$42,950, the contract award amount. The City Engineer, in his judgment, certifies that the work was satisfactorily completed as of June 26, 2024, and recommends that the City Council accept the completed work performed on this project.

RECOMMENDED ACTION:

- 1. City Council declare this project categorically exempt under the California Environmental Quality Act, Class 1, and 15301 as a minor exterior alteration of an existing public facility and Class 3, Section 15303 as construction of an accessory structure; and
- 2. Accept the completion of improvements for the Stanton Central Park Shade Structure Installation Project, as certified by the City Engineer, and affix the date of June 26, 2024 as the date of completion of all work on this project; and
- 3. Approve the final construction contract amount of \$42,950 with R.E. Schultz, Inc.; and
- Direct the City Clerk within ten (10) days from the date of acceptance to file the Notice of Completion (Attachment) with the County Clerk-Recorder of the County of Orange; and
- 5. Direct City staff, after thirty-five (35) days has elapsed from the filing of the "Notice of Completion" with the County Clerk-Recorder, to make the retention payment to R.E. Schultz, Inc. in the amount of \$2,147.50.

BACKGROUND:

The picnic tables north of the Community Center at Stanton Central Park had no shade covering. During the summer months when the splash pads are open, staff has observed visitors standing and crowding around the Community Center and restroom buildings to seek shelter and shade while supervising their children. As such, staff has been looking to install a new shade structure in the picnic table area to provide visitors shade and comfort when visiting the park. As part of the Fiscal Year 2021-22 Mid-Year Budget Update, Council approved the addition of this project to the Capital Improvement Program.

On September 26, 2023, the City Council authorized staff to advertise this project for construction and approved the draft plans and specifications.

On November 28, 2023, R.E. Schultz Construction, Inc. was awarded the contract for the project as the lowest responsible bidder in the amount of \$42,950.

ANALYSIS/JUSTIFICATION:

The total construction cost for this project was \$42,950, which is the awarded contract amount. No change orders were issued for this project.

The Stanton Central Park Shade Structure Installation Project has been completed in conformance with the project plans and specifications and has been accepted by the City Engineer.

FISCAL IMPACT:

The total project amount to be paid to R.E. Schultz Construction, Inc. for construction is \$42,950. This project was originally included in the FY 2022/2023 Capital Improvement Program Budget (Task Code No. 2022-205) for \$60,000, funded from available fund balance in the City's General Capital Projects Fund (#305). Total project costs, including staff time, was \$49,620.

ENVIRONMENTAL IMPACT:

This project is exempt under the California Environmental Quality Act ("CEQA"), Class 1, Section 15301 as a minor exterior alteration of an existing public facility and Class 3, Section 15303 as construction of an accessory structure.

LEGAL REVIEW:

None.

STRATEGIC PLAN OBJECTIVE ADDRESSED:

Obj. No. 3: Provide a quality infrastructure.

PUBLIC NOTIFICATION:

Notifications were performed through the normal agenda process.

Prepared by: Han Sol Yoo, Associate Engineer

Reviewed by: Cesar Rangel P.E., Director of Public Works/City Engineer

Fiscal Impact Reviewed by: Michelle Bannigan, Finance Director

Approved by: Hannah Shin-Heydorn, City Manager

ATTACHMENT:

A. Notice of Completion

Attachment: A Recording requested by and Click here to return to the agenda. when recorded mail to: CITY OF STANTON 7800 KATELLA AVE. STANTON, CA 90680 (Space above this line for Recorder's use) EXEMPT FROM RECORDING FEES PER **GOVERNMENT CODE SECTION 27383** NOTICE OF COMPLETION Notice pursuant to Civil Code Section 3093, must be filed within 10 days after completion. Notice is hereby given that: The undersigned is owner or corporate officer of the owner of the interest or estate stated below in the 1. property hereinafter described: 2. The full name of the owner is the City of Stanton. 3. The full address of owner is 7800 Katella Avenue, Stanton, CA 90680. The nature of the interest or estate of the owner is: Public Facility. 4. A work of improvement on the property hereinafter described was completed on June 26, 2024. The 5. work was the Stanton Central Park Shade Structure Installation Project. The name of the contractor for such work of improvement was: R.E. Schultz Construction, Inc. 6. The property on which said work of improvement was completed is in the City of: Stanton, County of 7. Orange, and State of California. , City of Stanton Dated: Cesar Rangel, City Engineer Verification for Individual Owner VERIFICATION I, the undersigned, say: I am the City Engineer of the City of Stanton, the declarant of the foregoing Notice of Completion; I have read said Notice of Completion and know the contents thereof; the same is true of my own

knowledge. I declare under penalty of perjury that the foregoing is true and correct.

Executed on	, 2024, at Stanton, California.	
		City of Stanton
	Cesar Rangel, City Engineer	_, City of Stanton

Item: 9H

Click here to return to the agenda.

CITY OF STANTON

REPORT TO CITY COUNCIL

TO: Honorable Mayor and Members of the City Council

DATE: July 9, 2024

SUBJECT: APPROVAL OF FIRST AMENDMENT TO PROFESSIONAL SERVICES

AGREEMENT WITH PACIFIC ADVANCED CIVIL ENGINEERING, INC.

REPORT IN BRIEF:

At the City Council meeting of December 12, 2023, a contract valued at \$539,870 was awarded to Pacific Advanced Civil Engineering, Inc. (PACE) to update the Storm Drain Master Plan. Due to PACE's familiarity with storm drain and sewer systems, they were chosen to review the plans for the Orco Block project by Stanton Land, LLC (Task Code No. 2024-709). The proposed First Amendment presented for the Council's consideration increases the not-to-exceed contract amount to \$574,670, the \$34,800 increase is a pass-through cost covered by Stanton Land, LLC for plan review services.

RECOMMENDED ACTION:

- 1. City Council find that the recommended actions are exempt from CEQA per Section15378(b)(5) [Project does not include]: organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment; and
- 2. Approve the First Amendment to the Professional Services Agreement with Pacific Advanced Civil Engineering, Inc. and allow the City Attorney to make minor edits as necessary prior to the execution of the Amendment; and
- 3. Authorize the City Manager to execute the First Amendment to the Professional Agreement with Pacific Advanced Civil Engineering, Inc.

BACKGROUND:

Orco Block, located on the southeast corner of Katella Avenue and Beach Boulevard, has submitted plans to relocate its manufacturing activities and develop the site with commercial and residential uses. The project proposes mixed-use development consisting of 159 three-story townhomes, commercial buildings, and the existing Orco Block administrative office building. The project site is located at 8042 Katella Avenue (11100 Beach Boulevard).

ANALYSIS/JUSTIFICATION:

PACE has been working diligently on updating the City's Storm Drain Master Plan. Due to PACE's familiarity with storm drain and sewer systems, they were chosen to review the preliminary and final plans for the Orco Block project. The plan review services include plan checking the storm drain and sewer plans, evaluating the preliminary pipe sizing for both systems, and reviewing the hydrology and sewer capacity study. As these services were not included in the original agreement, staff is requesting an increase to PACE's Professional Services Agreement in the amount of \$34,800, for a new not-to-exceed contract amount of \$574,670 to complete the plan review services for this project.

FISCAL IMPACT:

None. The Community & Economic Development Department will collect a deposit for the full cost of the contract amendment from the developer.

ENVIRONMENTAL IMPACT:

Council find that the recommended actions are exempt from CEQA per Section15378(b)(5) [Project does not include]: organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment.

LEGAL REVIEW:

The City Attorney has reviewed the First Amendment to the Agreement as to form.

STRATEGIC PLAN OBJECTIVES ADDRESSED:

Obj. No. 3: Provide a quality infrastructure.

Obj. No. 4: Maintain and promote a responsive, high quality and transparent government.

PUBLIC NOTIFICATION:

Through the normal agenda process.

Prepared by: Cesar Rangel P.E., Director of Public Works/City Engineer

Fiscal Impact Reviewed by: Michelle Bannigan, Finance Director

Approved by: Hannah Shin-Heydorn, City Manager

ATTACHMENTS:

A. First Amendment

B. Original Agreement

CITY OF STANTON

FIRST AMENDMENT TO PROFESSIONAL SERVICES AGREEMENT FOR STORM DRAIN MASTER PLAN UPDATE

1. PARTIES AND DATE.

This First Amendment to the Professional Services Agreement for Storm Drain Master Plan Update project ("First Amendment") is entered into on the ____ day of _____, 2024, by and between the City of Stanton ("City") and Pacific Advanced Civil Engineering, Inc. (PACE), a Corporation. ("Consultant"). City and Consultant are sometimes collectively referred to herein as the "Parties."

2. RECITALS.

- 2.1 <u>Agreement</u>. The Parties entered into that certain Professional Services Agreement for Storm Drain Master Plan Update project dated December 12, 2023 ("Agreement").
- 2.2 <u>First Amendment</u>. The Parties now desire to amend the Agreement in order to expand the Scope of Services, increase the total compensation and modify the schedule of compensation under the Agreement.

3. TERMS.

- 3.1 <u>General Scope of Services.</u> Exhibit "A" of the Agreement is hereby amended to include the additional services set forth in Attachment "1" to this First Amendment, attached hereto and incorporated herein by reference.
- 3.2 <u>Compensation</u>. Section 3.3.1 of the Agreement is hereby amended in its entirety to read as follows:

"Consultant shall receive compensation, including authorized reimbursements for all Services rendered under this Agreement at the rates set forth in Exhibit "C" attached hereto and incorporated herein by reference. The total compensation shall not exceed **FIVE HUNDRED SEVENTY-FOUR THOUSAND, SIX HUNDRED SEVENTY DOLLARS (\$574,670)** ("Total Compensation") without written approval of the City Council or City Manager, as applicable. Extra work may be authorized, as described below, and if authorized will be compensated at the rates and manner set forth in this Agreement."

- 3.3 <u>Schedule of Compensation</u>. Exhibit "C" of the Agreement is hereby amended in its entirety and replaced in the form of Attachment "2" to this First Amendment, attached hereto and incorporated herein by reference.
- 3.4 <u>Remaining Provisions of Agreement</u>. Except as otherwise specifically set forth in this First Amendment, the remaining provisions of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the pa on this day of, 2024.	rties have executed this First Amendment to Agreement
CITY OF STANTON	PACIFIC ADVANCED CIVIL ENGINEERING, INC. (PACE)
By: Hannah Shin-Heydorn City Manager	By: Name: Title:
ATTEST:	By
By: Patricia Vazquez City Clerk APPROVED AS TO FORM:	By:
Ву:	
Best Best & Krieger LLP City Attorney	

ATTACHMENT "1" TO FIRST AMENDMENT

EXHIBIT A

SCOPE OF SERVICES

Hydrology and Storm Drain Review

Consultant stormwater staff will review the applicants storm drain concept plans and evaluate their preliminary pipe sizing and proposed connection to the Beach Boulevard Storm Drain. No more than 2 reviews are anticipated. Consultant will also update the Master Plan to reflect the proposed change in connection to the Katella Storm Drain Line. This will include updating the hydrology and storm drain routing. Consultant will also advise the city on potential changes to their tentative map application process and help draft conditions for storm drainage for the City's use in the drafting of the overall conditions of approval for the tentative map.

Sewer Review

Consultant utility staff will review the applicant sewer concept plans and evaluate their pipe sizing based on the draft Sewer Master Plan. No more than 2 reviews are anticipated. Consultant will advise the city on draft conditions for storm drainage for the city's use in the drafting of the overall conditions of approval for the tentative map.

Meetings and Coordination

Consultant staff will attend up to 6 meetings with the applicant and the city. The meetings can be either in person or virtual. Coordination will include phone calls and general project management.

Sewer PS&E Design Review

Consultant utility staff will review the applicant's sewer plans and corresponding design reports and model.

This task will be invoiced on a Time and Expense, as-needed, basis. We expect that no more than 3 reviews are required.

Storm Drain PS&E Design Review

Consultant stormwater staff will review the applicant's sewer plans and corresponding design reports and models including both hydrology and hydraulics analysis. This task will be invoiced on a Time and Expense, as-needed basis. We expect that no more than 3 reviews will be required.

ATTACHMENT "2" TO FIRST AMENDMENT

EXHIBIT C

SCHEDULE OF COMPENSATION



AUTHORIZATION FOR CHANGE ORDER

TO:	City of Stanton	ATTN:	Cesar Rangel
	7800 Katella Ave.	DATE:	June 25, 2024
	Stanton, CA 90680	PROJECT:	SD Master Plan Update #C214
		C.O. AUTHORIZATION #:	01

The following was not included in the original contract. We are requesting authorization for additional budget to provide plan review services to the City of Stanton for the Tentative Map and sewer PS&E submittals for the ORCO development site on Katella Avenue east of Beach Boulevard.

Description of Services:

Task 10 - Hydrology and Storm Drain Review (T&E)

\$7,800

Consultant stormwater staff will review the applicants storm drain concept plans and evaluate their preliminary pipe sizing and proposed connection to the Beach Boulevard Storm Drain. No more than 2 reviews are anticipated. Consultant will also update the Master Plan to reflect the proposed change in connection to the Katella Storm Drain Line. This will include updating the hydrology and storm drain routing. Consultant will also advise the city on potential changes to their tentative map application process and help draft conditions for storm drainage for the City's use in the drafting of the overall conditions of approval for the tentative map.

Task 11 - Sewer Review (T&E)

\$4,800

Consultant utility staff will review the applicant sewer concept plans and evaluate their pipe sizing based on the draft Sewer Master Plan. No more than 2 reviews are anticipated. Consultant will advise the city on draft conditions for storm drainage for the city's use in the drafting of the overall conditions of approval for the tentative map.

Task 12 - Meetings and Coordination (T&E)

\$4,200

Consultant staff will attend up to 6 meetings with the applicant and the city. The meetings can be either in person or virtual. Coordination will include phone calls and general project management.

Task 13 - Sewer PS&E Design Review (T&E)

\$8,000

Consultant utility staff will review the applicant's sewer plans and corresponding design reports and models. This task will be invoiced on a Time and Expense, as-needed, basis. We expect that no more than 3 reviews will be required.

Task 14 - Storm Drain PS&E Design Review (T&E)

\$10,000

Consultant stormwater staff will review the applicant's sewer plans and corresponding design reports and models including both hydrology and hydraulics analysis. This task will be invoiced on a Time and Expense, as-needed basis. We expect that no more than 3 reviews will be required.

This Request - Change Order #01: \$ 34.800

Estimated By: Rebecca Kinney, PE, CFM Date	
AGREED TO AND ACCEPTED BY:	
By City of Stanton Date	





ENGINEERING FEE ESTIMATE PROJECT WORKSHEET

Project Name: ORCO TTM Review (Stanton MPD CO 1)
Client: City of Stanton
PACE Job Number: C214
Estimate Date: June 25, 2024

2024 PACE Hourly Rate Schedule					
Description	Hourly Rate				
Principal	\$300				
Sr. Proj. Mgr./Sr. Consulting Engr.	\$260				
Sr. Electrical Engineer / Sr. GIS Analyst	\$250				
Project Manager /Consulting Engr./Sr. I&C Specialist	\$245				
Sr. Proj. Engr./Sr. Design Engr.	\$220				
Instrumentation & Controls Specialist	\$190				
Proj. Engr/Design Engineer II	\$185				
Sr. CAD Designer	\$175				
Design Engineer	\$150				
CAD Designer/GIS Analyst	\$145				
Graphic Designer	\$125				
Project Coordinator	\$105				
Administrative Support	\$100				
Assistant Designer	\$85				
G.P.S. Survey Unit (w/Operator)	\$290				
Expert Witness/Legal Consultation	\$400 + Exp.				

Total Fee Amount: \$ 34,800

		Estimated Manhours														
				Sr. Electrical Engineer/Sr.	Project Mgr./ Consulting Engr./ Sr. I&C	Sr. Project Engineer/Sr.	Project Engineer /Design	Design	Sr. CAD	CAD Designer /GIS	Graphic	Project	GPS Survey Unit	Man-Power	Tatal Task	Contract
Item No.	Work Item Description	Principal	Consulting Engr.			Design Engr.	Enar. II	Engineer	Designer							
	Hydrology and Storm Drain Review (T&E)	- mioipui	Gonouning Engin	0.07	Openanor	Doorgii Erigii	2.19.11	2119111001	Doolg.io.	711101701	Doorgino	o o o i a i i a i o i	(III) Operatory	- Captota.	\$7,780	\$ 7,800
	Investigation into available data in the area		3					2						\$1,025		
10.2	Review #1 and Comment		3					8						\$1,895		
	Update Master Plan to reflect change in location of connections		2					16						\$2,810		
	Review #2		2					4						\$1,070		
	Suggest changes to TM required studies list		2											\$490		
	Recommend conditions for tentative map.		2											\$490		
	Sewer Review (T&E)														\$4,815	\$ 4,800
	Draft Sewer Master Plan Review		2					6						\$1,360		
	Review #1 and Comment		3					8						\$1,895		
	Review #2		2					4						\$1,070		
	Recommend conditions for tentative map.		2											\$490		
	Meetings and Coordination														\$4,210	\$ 4,200
	Meetings		12					4						\$3,520		
	Coordination		2									2		\$690		
	Sewer PS&E Review (T&E)														\$7,840	\$ 8,000
	1st review		16											\$3,920		
	2nd review		10											\$2,450		
	3rd Review		6											\$1,470		
	Storm Drain PS&E Review (T&E)														\$9,880	\$ 10,000
	1st review		24					6						\$6,750		
	2nd review		8					2						\$2,250		
13.3	3rd Review		3					1						\$880		
	TOTALS	0	104	0	0	0	0	61	0	0	0	2	0	\$34,525	\$34,525	\$ 34,800

CITY OF STANTON PROFESSIONAL SERVICES AGREEMENT FOR STORM DRAIN MASTER PLAN UPDATE

1. PARTIES AND DATE.

This Agreement is made and entered into this <u>L2**</u> day of <u>December</u>, <u>2023</u>, by and between the City of Stanton, a municipal organization organized under the laws of the State of California with its principal place of business at 7800 Katella Avenue, Stanton, California 90680 ("City") and **Pacific Advanced Civil Engineering, Inc.** (PACE), a Corporation, with its principal place of business at 17520 Newhope Street, Suite 200, Fountain Valley, CA92708 ("Consultant"). City and Consultant are sometimes individually referred to herein as "Party" and collectively as "Parties."

2. RECITALS.

2.1 Consultant.

Consultant desires to perform and assume responsibility for the provision of professional engineering consultant services required by the City on the terms and conditions set forth in this Agreement. Consultant represents that it is experienced in providing professional engineering consultant services to public clients, is licensed in the State of California, and is familiar with the plans of City.

2.2 Project.

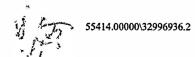
City desires to engage Consultant to render such services for the **Storm Drain Master Plan Update** project ("Project") as set forth in this Agreement.

3. TERMS.

3.1 Scope of Services and Term.

- 3.1.1 General Scope of Services. Consultant promises and agrees to furnish to the City all labor, materials, tools, equipment, services, and incidental and customary work necessary to fully and adequately supply the professional **engineering** consultant services necessary for the Project ("Services"). The Services are more particularly described in Exhibit "A" attached hereto and incorporated herein by reference. All Services shall be subject to, and performed in accordance with, this Agreement, the exhibits attached hereto and incorporated herein by reference, and all applicable local, state and federal laws, rules and regulations.
- 3.1.2 <u>Term.</u> The term of this Agreement shall be from **December 13, 2023** to **June 30, 2025**, unless earlier terminated as provided herein.

3.2 Responsibilities of Consultant.





- 3.2.1 Independent Contractors, Control and Payment of Subordinates; <u>Independent Contractor</u>. The Services shall be performed by Consultant or under its supervision. Consultant will determine the means, methods and details of performing the Services subject to the requirements of this Agreement. City retains Consultant on an independent contractor basis and not as an employee. Consultant shall complete, execute, and submit to City a Request for Taxpayer Identification Number and Certification (IRS FormW-9) prior to commencement of any Services under this Agreement. Consultant retains the right to perform similar or different services for others during the term of this Agreement. Any additional personnel performing the Services under this Agreement on behalf of Consultant shall also not be employees of City and shall at all times be under Consultant's exclusive direction and control. Neither City, nor any of its officials, officers, directors, employees or agents shall have control over the conduct of Consultant or any of Consultant's officers, employees, or agents, except as set forth in this Agreement. Consultant shall pay all wages, salaries, and other amounts due such personnel in connection with their performance of Services under this Agreement and as required by law. Consultant shall be responsible for all reports and obligations respecting such additional personnel, including, but not limited to: social security taxes, income tax withholding, unemployment insurance, disability insurance, and workers' compensation insurance.
- 3.2.2 Schedule of Services. Consultant shall perform the Services expeditiously, within the term of this Agreement, and in accordance with the Schedule of Services set forth in Exhibit "B" attached hereto and incorporated herein by reference. Consultant represents that it has the professional and technical personnel required to perform the Services in conformance with such conditions. In order to facilitate Consultant's conformance with the Schedule, City shall respond to Consultant's submittals in a timely manner. Upon request of City, Consultant shall provide a more detailed schedule of anticipated performance to meet the Schedule of Services.
- 3.2.3 <u>Conformance to Applicable Requirements.</u> All work prepared by Consultant shall be subject to the approval of City.
- 3.2.4 <u>Substitution of Key Personnel</u>. Consultant has represented to City that certain key personnel will perform and coordinate the Services under this Agreement. Should one or more of such personnel become unavailable, Consultant may substitute other personnel of at least equal competence upon written approval of City. In the event that City and Consultant cannot agree as to the substitution of key personnel, City shall be entitled to terminate this Agreement for cause. As discussed below, any personnel who fail or refuse to perform the Services in a manner acceptable to the City, or who are determined by the City to be uncooperative, incompetent, a threat to the adequate or timely completion of the Project or a threat to the safety of persons or property, shall be promptly removed from the Project by the Consultant at the request of the City. The key personnel for performance of this Agreement are as follows: Rebecca Kinney.
- 3.2.5 <u>City's Representative</u>. The City hereby designates the City Manager, or his or her designee, to act as its representative for the performance of this Agreement ("City's Representative"). City's Representative shall have the power to act on behalf of the City for all purposes under this Contract. The City Manager hereby designates **the Public Works Director**, or his or her designee, as the City's contact for the implementation of the Services hereunder.





Consultant shall not accept direction or orders from any person other than the City's Representative or his or her designee.

- 3.2.6 <u>Consultant's Representative</u>. Consultant hereby designates **Rebecca Kinney**, or his or her designee, to act as its representative for the performance of this Agreement ("Consultant's Representative"). Consultant's Representative shall have full authority to represent and act on behalf of the Consultant for all purposes under this Agreement. The Consultant's Representative shall supervise and direct the Services, using his best skill and attention, and shall be responsible for all means, methods, techniques, sequences and procedures and for the satisfactory coordination of all portions of the Services under this Agreement.
- 3.2.7 <u>Coordination of Services</u>. Consultant agrees to work closely with City staff in the performance of Services and shall be available to City's staff, consultants and other staff at all reasonable times.
- 3.2.8 Standard of Care; Performance of Employees. Consultant shall perform all Services under this Agreement in a skillful and competent manner, consistent with the standards generally recognized as being employed by professionals in the same discipline in the State of California. Consultant represents and maintains that it is skilled in the professional Consultant warrants that all employees and calling necessary to perform the Services. subconsultants shall have sufficient skill and experience to perform the Services assigned to them. Finally, Consultant represents that it, its employees and subconsultants have all licenses. permits, qualifications and approvals of whatever nature that are legally required to perform the Services and that such licenses and approvals shall be maintained throughout the term of this Agreement. As provided for in the indemnification provisions of this Agreement, Consultant shall perform, at its own cost and expense and without reimbursement from the City, any services necessary to correct errors or omissions which are caused by the Consultant's failure to comply with the standard of care provided for herein. Any employee of the Consultant or its sub-consultants who is determined by the City to be uncooperative, incompetent, a threat to the adequate or timely completion of the Project, a threat to the safety of persons or property, or any employee who fails or refuses to perform the Services in a manner acceptable to the City, shall be promptly removed from the Project by the Consultant and shall not be re-employed to perform any of the Services or to work on the Project.
- 3.2.9 <u>Laws and Regulations</u>. Consultant shall keep itself fully informed of and in compliance with all local, state and federal laws, rules and regulations in any manner affecting the performance of the Project or the Services, including all Cal/OSHA requirements, and shall give all notices required by law. Consultant shall be liable for all violations of such laws and regulations in connection with Services. If the Consultant performs any work knowing it to be contrary to such laws, rules and regulations, Consultant shall be solely responsible for all costs arising therefrom. Consultant shall defend, indemnify and hold City, its officials, directors, officers, employees, agents and volunteers free and harmless, pursuant to the indemnification provisions of this Agreement, from any claim or liability arising out of any failure or alleged failure to comply with such laws, rules or regulations.

3.2.10 Insurance.



3.2.10.1 <u>Time for Compliance</u>. Consultant shall not commence Work under this Agreement until it has provided evidence satisfactory to the City that it has secured all insurance required under this section. In addition, Consultant shall not allow any subconsultant to commence work on any subcontract until it has provided evidence satisfactory to the City that the subconsultant has secured all insurance required under this section.

3.2.10.2 Types of Insurance Required. As a condition precedent to the effectiveness of this Agreement for work to be performed hereunder and without limiting the indemnity provisions of the Agreement, the Consultant in partial performance of its obligations under such Agreement, shall procure and maintain in full force and effect during the term of the Agreement, the following policies of insurance. If the existing policies do not meet the Insurance Requirements set forth herein, Consultant agrees to amend, supplement or endorse the policies to do so.

(a) Commercial General Liability: Commercial General Liability Insurance which affords coverage at least as broad as Insurance Services Office "occurrence" form CG 0001, with minimum limits of at least \$1,000,000 per occurrence, and if written with an aggregate, the aggregate shall be double the per occurrence limit. Defense costs shall be paid in addition to the limits.

The policy shall contain no endorsements or provisions limiting coverage for (1) contractual liability; (2) cross liability exclusion for claims or suits by one insured against another; or (3) contain any other exclusion contrary to the Agreement.

- (b) Automobile Liability Insurance: Automobile Liability Insurance with coverage at least as broad as Insurance Services Office Form CA 0001 covering "Any Auto" (Symbol 1) with minimum limits of \$1,000,000 each accident.
- (c) Professional Liability: Professional Liability insurance with minimum limits of \$1,000,000. Covered professional services shall specifically include all work to be performed under the Agreement and delete any exclusions that may potentially affect the work to be performed (for example, any exclusions relating to lead, asbestos, pollution, testing, underground storage tanks, laboratory analysis, soil work, etc.).

If coverage is written on a claims-made basis, the retroactive date shall precede the effective date of the initial Agreement and continuous coverage will be maintained or an extended reporting period will be exercised for a period of at least three (3) years from termination or expiration of this Agreement.

(d) Workers' Compensation: Workers' Compensation Insurance, as required by the State of California and Employer's Liability





Insurance with a limit of not less than \$1,000,000 per accident for bodily injury and disease.

3.2.10.3 <u>Endorsements</u>. Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the City for approval.

- (a) The policy or policies of insurance required by Section 3.2.10.2 (a) Commercial General Liability shall be endorsed to provide the following:
 - (1) Additional Insured: The City, its officials, officers, employees, agents, and volunteers shall be additional insureds with regard to liability and defense of suits or claims arising out of the performance of the Agreement.

Additional Insured Endorsements shall not (1) be restricted to "ongoing operations"; (2) exclude "contractual liability"; (3) restrict coverage to "sole" liability of Consultant; or (4) contain any other exclusions contrary to the Agreement.

- (2) Cancellation: Required insurance policies shall not be canceled or the coverage reduced until a thirty (30) day written notice of cancellation has been served upon the City except ten (10) days shall be allowed for non-payment of premium.
- (b) The policy or policies of insurance required by Section 3.2.10.2 (b) Automobile Liability and (d) Professional Liability shall be endorsed to provide the following:
 - (1) Cancellation: Required insurance policies shall not be canceled or the coverage reduced until a thirty (30) day written notice of cancellation has been served upon the City except ten (10) days shall be allowed for non-payment of premium.
- (c) The policy or policies of insurance required by Section 3.2.10.2 (e) Workers' Compensation shall be endorsed to provide the following:
 - (1) Waiver of Subrogation: A waiver of subrogation stating that the insurer waives all rights of subrogation against the indemnified parties.
 - (2) Cancellation: Required insurance policies shall not be canceled or the coverage reduced until a thirty (30) day written notice of cancellation has been served upon the City



except ten (10) days shall be allowed for non-payment of premium.

- 3.2.10.4 <u>Primary and Non-Contributing Insurance</u>. All insurance coverages shall be primary and any other insurance, deductible, or self-insurance maintained by the indemnified parties shall not contribute with this primary insurance. Policies shall contain or be endorsed to contain such provisions.
- 3.2.10.5 <u>Waiver of Subrogation</u>. Required insurance coverages shall not prohibit Consultant from waiving the right of subrogation prior to a loss. Consultant shall waive all subrogation rights against the indemnified parties. Policies shall contain or be endorsed to contain such provisions.
- 3.2.10.6 <u>Deductible</u>. Any deductible or self-insured retention must be approved in writing by the City and shall protect the indemnified parties in the same manner and to the same extent as they would have been protected had the policy or policies not contained a deductible or self-insured retention.
- 3.2.10.7 Evidence of Insurance. The Consultant, concurrently with the execution of the Agreement, and as a condition precedent to the effectiveness thereof, shall deliver either certified copies of the required policies, or original certificates and endorsements on forms approved by the City. The certificates and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf. At least fifteen (15 days) prior to the expiration of any such policy, evidence of insurance showing that such insurance coverage has been renewed or extended shall be filed with the City. If such coverage is cancelled or reduced, Consultant shall, within ten (10) days after receipt of written notice of such cancellation or reduction of coverage, file with the City evidence of insurance showing that the required insurance has been reinstated or has been provided through another insurance company or companies.
- 3.2.10.8 <u>Failure to Maintain Coverage</u>. Consultant agrees to suspend and cease all operations hereunder during such period of time as the required insurance coverage is not in effect and evidence of insurance has not been furnished to the City. The City shall have the right to withhold any payment due Consultant until Consultant has fully complied with the insurance provisions of this Agreement.

In the event that the Consultant's operations are suspended for failure to maintain required insurance coverage, the Consultant shall not be entitled to an extension of time for completion of the Services because of production lost during suspension.

- 3.2.10.9 <u>Acceptability of Insurers</u>. Each such policy shall be from a company or companies with a current A.M. Best's rating of no less than A:VII and authorized to do business in the State of California, or otherwise allowed to place insurance through surplus line brokers under applicable provisions of the California Insurance Code or any federal law.
- 3.2.10.10 <u>Insurance for Subconsultants</u>. All Subconsultants shall be included as additional insureds under the Consultant's policies, or the Consultant shall be responsible for causing Subconsultants to purchase the appropriate insurance in compliance with





the terms of these Insurance Requirements, including adding the City as an Additional Insured to the Subconsultant's policies.

3.2.11 Safety. Consultant shall execute and maintain its work so as to avoid injury or damage to any person or property. In carrying out its Services, the Consultant shall at all times be in compliance with all applicable local, state and federal laws, rules and regulations, and shall exercise all necessary precautions for the safety of employees appropriate to the nature of the work and the conditions under which the work is to be performed. Safety precautions as applicable shall include, but shall not be limited to: (A) adequate life protection and life saving equipment and procedures; (B) instructions in accident prevention for all employees and subconsultants, such as safe walkways, scaffolds, fall protection ladders, bridges, gang planks, confined space procedures, trenching and shoring, equipment and other safety devices, equipment and wearing apparel as are necessary or lawfully required to prevent accidents or injuries; and (C) adequate facilities for the proper inspection and maintenance of all safety measures.

3.3 Fees and Payments.

- 3.3.1 Compensation. Consultant shall receive compensation, including authorized reimbursements, for all Services rendered under this Agreement at the rates set forth in Exhibit "C" attached hereto and incorporated herein by reference. The total compensation shall not exceed FIVE HUNDRED THIRTY-NINE THOUSAND, EIGHT HUNDRED SEVENTY DOLLARS (\$539,870) ("Total Compensation") without written approval of City's Public Works Director. Extra Work may be authorized, as described below, and if authorized, will be compensated at the rates and manner set forth in this Agreement.
- 3.3.2 <u>Payment of Compensation</u>. Consultant shall submit to City a monthly itemized statement which indicates work completed and hours of Services rendered by Consultant. The statement shall describe the amount of Services and supplies provided since the initial commencement date, or since the start of the subsequent billing periods, as appropriate, through the date of the statement. City shall, within 45 days of receiving such statement, review the statement and pay all approved charges thereon.
- 3.3.3 <u>Reimbursement for Expenses</u>. Consultant shall not be reimbursed for any expenses unless authorized in writing by City.
- 3.3.4 Extra Work. At any time during the term of this Agreement, City may request that Consultant perform Extra Work. As used herein, "Extra Work" means any work which is determined by City to be necessary for the proper completion of the Project, but which the Parties did not reasonably anticipate would be necessary at the execution of this Agreement. Consultant shall not perform, nor be compensated for, Extra Work without written authorization from the City.
- 3.3.5 <u>Prevailing Wages</u>. Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and





"maintenance" projects. If the Services are being performed as part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is \$1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. City shall provide Consultant with a copy of the prevailing rates of per diem wages in effect at the commencement of this Agreement. Consultant shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the Services available to interested parties upon request, and shall post copies at the Consultant's principal place of business and at the project site. It is the intent of the parties to effectuate the requirements of sections 1771, 1774, 1775, 1776, 1777.5, 1813, and 1815 of the Labor Code within this Agreement, and Consultant shall therefore comply with such Labor Code sections to the fullest extent required by law. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees, agents and volunteers free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

3.4 Accounting Records.

3.4.1 <u>Maintenance and Inspection</u>. Consultant shall maintain complete and accurate records with respect to all costs and expenses incurred under this Agreement. All such records shall be clearly identifiable. Consultant shall allow a representative of City during normal business hours to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to the Agreement for a period of three (3) years from the date of final payment under this Agreement.

3.5 General Provisions.

3.5.1 Termination of Agreement.

- 3.5.1.1 Grounds for Termination. City may, by written notice to Consultant, terminate the whole or any part of this Agreement at any time and without cause by giving written notice to Consultant of such termination, and specifying the effective date thereof, at least seven (7) days before the effective date of such termination. Upon termination, Consultant shall be compensated only for those services which have been adequately rendered to City, and Consultant shall be entitled to no further compensation. Consultant may not terminate this Agreement except for cause.
- 3.5.1.2 <u>Effect of Termination</u>. If this Agreement is terminated as provided herein, City may require Consultant to provide all finished or unfinished Documents and Data and other information of any kind prepared by Consultant in connection with the performance of Services under this Agreement. Consultant shall be required to provide such document and other information within fifteen (15) days of the request.
- 3.5.1.3 <u>Additional Services</u>. In the event this Agreement is terminated in whole or in part as provided herein, City may procure, upon such terms and in such manner as it may determine appropriate, services similar to those terminated.





3.5.2 <u>Delivery of Notices</u>. All notices permitted or required under this Agreement shall be given to the respective parties at the following address, or at such other address as the respective parties may provide in writing for this purpose:

Consultant:

Pacific Advanced Civil Engineering, Inc. (PACE) 17520 Newhope Street, Suite 200 Fountain Valley, CA 92708 Attn: Rebecca Kinney

City:

City of Stanton 7800 Katella Avenue Stanton, CA 90680 Attn: Cesar Rangel, Director of Public Works

Such notice shall be deemed made when personally delivered or when mailed, forty-eight (48) hours after deposit in the U.S. Mail, first class postage prepaid and addressed to the party at its applicable address. Actual notice shall be deemed adequate notice on the date actual notice occurred, regardless of the method of service.

3.5.3 Ownership of Materials and Confidentiality.

Documents & Data; Licensing of Intellectual Property. This 3.5.3.1 Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subconsultants to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subconsultant prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were prepared by design professionals other than Consultant or provided to Consultant by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

3.5.3.2 <u>Confidentiality</u>. All ideas, memoranda, specifications, plans, procedures, drawings, descriptions, computer program data, input record data, written information, and other Documents and Data either created by or provided to Consultant in connection with the performance of this Agreement shall be held confidential by Consultant. Such materials shall not, without the prior written consent of City, be used by Consultant for any purposes other than the performance of the Services. Nor shall such materials be disclosed to any person or entity not connected with the performance of the Services or the Project. Nothing





furnished to Consultant which is otherwise known to Consultant or is generally known, or has become known, to the related industry shall be deemed confidential. Consultant shall not use City's name or insignia, photographs of the Project, or any publicity pertaining to the Services or the Project in any magazine, trade paper, newspaper, television or radio production or other similar medium without the prior written consent of City.

- Consultant's proprietary information ("Proprietary Information") unless the City's legal counsel determines that the release of the Proprietary Information is required by the California Public Records Act or other applicable state or federal law, or order of a court of competent jurisdiction, in which case the City shall notify Consultant of its intention to release Proprietary Information. Consultant shall have five (5) working days after receipt of the Release Notice to give City written notice of Consultant's objection to the City's release of Proprietary Information. Consultant shall indemnify, defend and hold harmless the City, and its officers, directors, employees, and agents from and against all liability, loss, cost or expense (including attorney's fees) arising out of a legal action brought to compel the release of Proprietary Information. City shall not release the Proprietary Information after receipt of the Objection Notice unless either: (1) Consultant fails to fully indemnify, defend (with City's choice of legal counsel), and hold City harmless from any legal action brought to compel such release; and/or (2) a final and non-appealable order by a court of competent jurisdiction requires that City release such information.
- 3.5.4 <u>Cooperation: Further Acts.</u> The Parties shall fully cooperate with one another, and shall take any additional acts or sign any additional documents as may be necessary, appropriate or convenient to attain the purposes of this Agreement.
- 3.5.5 Attorney's Fees. If either party commences an action against the other party, either legal, administrative or otherwise, arising out of or in connection with this Agreement, the prevailing party in such litigation shall be entitled to have and recover from the losing party reasonable attorney's fees and all other costs of such action.

3.5.6 Indemnification.

To the fullest extent permitted by law, Consultant shall defend (with counsel of City's choosing), indemnify and hold the City, its officials, officers, employees, volunteers and agents free and harmless from any and all claims, demands, causes of action, costs, expenses, liability, loss, damage or injury of any kind, in law or equity, to property or persons, including wrongful death, in any manner arising out of, pertaining to, or incident to any alleged acts, errors or omissions, or willful misconduct of Consultant, its officials, officers, employees, subcontractors, consultants or agents in connection with the performance of the Consultant's Services, the Project or this Agreement, including without limitation the payment of all damages, expert witness fees and attorneys fees and other related costs and expenses. Consultant's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by the Consultant or the City, its officials, officers, employees, agents or volunteers.

If Consultant's obligation to defend, indemnify, and/or hold harmless arises out of Consultant's performance as a "design professional" (as that term is defined under Civil Code section 2782.8), then, and only to the extent required by Civil Code section 2782.8,



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which is fully incorporated herein, Consultant's indemnification obligation shall be limited to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant, and, upon Consultant obtaining a final adjudication by a court of competent jurisdiction, Consultant's liability for such claim, including the cost to defend, shall not exceed the Consultant's proportionate percentage of fault.

The obligation to indemnify, as provided herein, shall survive the termination or expiration of this Agreement.

- 3.5.7 Entire Agreement. This Agreement contains the entire Agreement of the parties with respect to the subject matter hereof, and supersedes all prior negotiations, understandings or agreements. This Agreement may only be modified by a writing signed by both parties.
- 3.5.8 Governing Law. This Agreement shall be governed by the laws of the State of California. Venue shall be in Orange County.
- 3.5.9 <u>Time of Essence</u>. Time is of the essence for each and every provision of this Agreement.
- 3.6 <u>City's Right to Employ Other Consultants</u>. City reserves right to employ other consultants in connection with this Project.
- 3.7 <u>Successors and Assigns</u>. This Agreement shall be binding on the successors and assigns of the parties.
- 3.8 Assignment or Transfer. Consultant shall not assign, hypothecate, or transfer, either directly or by operation of law, this Agreement or any interest herein without the prior written consent of the City. Any attempt to do so shall be null and void, and any assignees, hypothecates or transferees shall acquire no right or interest by reason of such attempted assignment, hypothecation or transfer.
- 3.9 Construction: References: Captions. Since the Parties or their agents have participated fully in the preparation of this Agreement, the language of this Agreement shall be construed simply, according to its fair meaning, and not strictly for or against any Party. Any term referencing time, days or period for performance shall be deemed calendar days and not work days. All references to Consultant include all personnel, employees, agents, and subconsultants of Consultant, except as otherwise specified in this Agreement. All references to City include its elected officials, officers, employees, agents, and volunteers except as otherwise specified in this Agreement. The captions of the various articles and paragraphs are for convenience and ease of reference only, and do not define, limit, augment, or describe the scope, content, or intent of this Agreement.
- 3.10 <u>Amendment; Modification</u>. No supplement, modification, or amendment of this Agreement shall be binding unless executed in writing and signed by both Parties.
- 3.11 <u>Waiver</u>. No waiver of any default shall constitute a waiver of any other default or breach, whether of the same or other covenant or condition. No waiver, benefit, privilege, or



service voluntarily given or performed by a Party shall give the other Party any contractual rights by custom, estoppel, or otherwise.

- 3.12 <u>No Third Party Beneficiaries</u>. There are no intended third party beneficiaries of any right or obligation assumed by the Parties.
- 3.13 <u>Invalidity: Severability</u>. If any portion of this Agreement is declared invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions shall continue in full force and effect.
- 3.14 Prohibited Interests. Consultant maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Consultant, to solicit or secure this Agreement. Further, Consultant warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, City shall have the right to rescind this Agreement without liability. For the term of this Agreement, no member, officer or employee of City, during the term of his or her service with City, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising therefrom.
- 3.15 <u>Equal Opportunity Employment</u>. Consultant represents that it is an equal opportunity employer and it shall not discriminate against any subconsultant, employee or applicant for employment because of race, religion, color, national origin, handicap, ancestry, sex or age. Such non-discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination. Consultant shall also comply with all relevant provisions of City's Minority Business Enterprise program, Affirmative Action Plan or other related programs or guidelines currently in effect or hereinafter enacted.
- 3.16 <u>Labor Certification</u>. By its signature hereunder, Consultant certifies that it is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that Code, and agrees to comply with such provisions before commencing the performance of the Services.
- 3.17 <u>Authority to Enter Agreement.</u> Consultant has all requisite power and authority to conduct its business and to execute, deliver, and perform the Agreement. Each Party warrants that the individuals who have signed this Agreement have the legal power, right, and authority to make this Agreement and bind each respective Party.
- 3.18 <u>Counterparts</u>. This Agreement may be signed in counterparts, each of which shall constitute an original.
- 3.19 <u>Declaration of Political Contributions</u>. Consultant shall, throughout the term of this Agreement, submit to City an annual statement in writing declaring any political contributions of money, in-kind services, or loan made to any member of the City Council within the previous twelve-month period by the Consultant and all of Consultant's employees, including



any employee(s) that Consultant intends to assign to perform the Services described in this Agreement.

3.20 Subcontracting.

3.20.1 <u>Prior Approval Required</u>. Consultant shall not subcontract any portion of the work required by this Agreement, except as expressly stated herein, without prior written approval of City. Subcontracts, if any, shall contain a provision making them subject to all provisions stipulated in this Agreement.

[Signatures on following page.]

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IN WITNESS WHEREOF, the parties have executed this Professional Services Agreement on this 10th day of January, 2024.

CITY OF STANTON

Pacific Advanced Civil Engineering, Inc. (PACE)

City Manager

By:

Name:

Title:_

APTEST:

Patricia Vazqu City Clerk

YOFS

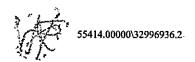
APPROVED AS TO FORM:

By:

Best Best & Krieger LLP

City Attorney







Item: 91

Click here to return to the agenda.

CITY OF STANTON

REPORT TO CITY COUNCIL

TO: Honorable Mayor and Members of the City Council

DATE: July 9, 2024

SUBJECT: AWARD A PROFESSIONAL SERVICES AGREEMENT TO PBS

ENGINEERS, INC. FOR ENGINEERING AND DESIGN SERVICES FOR HEATING, VENTILATION, AND AIR CONDITIONING (HVAC) REPLACEMENT OF THE COMMUNITY CENTER IMPROVEMENTS

PROJECT

REPORT IN BRIEF:

The Community Center/City Hall building HVAC system has exceeded its useful life and requires frequent repairs and temporary fixes due to the age of the system. City staff issued a Request for Proposals (RFP) soliciting engineering and design services to replace the existing HVAC units in the Community Center/City Hall. After completing the RFP process, staff recommends awarding a contract to PBS Engineers, Inc. in the amount of \$128,000.

RECOMMENDED ACTIONS:

- 1. City Council declare this project to be categorically exempt under the California Environmental Quality Act, Class 1, Section 15301(b) as operation, repair, and maintenance of existing publicly owned utilities; and
- 2. Award a professional services agreement to PBS Engineers, Inc. for Engineering and Design Services for HVAC Replacement of the Community Center Improvements Project in the amount of \$128,000; and
- 3. Authorize the City Manager to bind the City of Stanton and PBS Engineers, Inc. in a contract to provide the services; and
- 4. Authorize the City Manager to approve a contract contingency, not to exceed ten percent of the contract amount, of \$12,800.

BACKGROUND:

The new HVAC units will bolster the City's ability to deliver essential services to the public during emergencies, including pandemics such as COVID-19. Public facilities, such as the Stanton Community Center, play critical roles in providing shelter, electricity, internet

access and other services to the public during emergencies. Due to its age, the HVAC system for the Stanton Community Center/City Hall has been experiencing more frequent and costly repairs and maintenance.

On January 10, 2023, the City Council approved the City's participation in the Community Development Block Grant – Cares Program and appropriated \$500,000 for the Stanton Community Center Improvement Project.

At the May 23, 2023, Council meeting, the City Council authorized a purchase for eight (8) HVAC units in the amount of \$133,116, which have been received and are stored at the City Yard. This next phase will be to attain project plans, specifications, and cost estimations (PS&E) to fully upgrade the HVAC units and central system to a fully functional state.

ANALYSIS/JUSTIFICATION:

A Request for Proposals (RFP) was issued on March 19, 2024, with a proposal due date of April 18, 2024, and four firms provided proposals.

An internal City review committee consisting of the Public Works Director, Assistant City Engineer, and Associate Engineer evaluated the proposals. Based on experience, qualifications, and project understanding, only two firms were selected for in-person interviews. The interviews provided City staff with an opportunity to clarify elements of the consultants' proposals and to negotiate the consultants' fee proposals.

During the interviews, PBS Engineers was the only firm that identified value-added elements of the project that were not identified in the City's RFP. Those elements include a thorough investigation and testing of the existing HVAC duct network and additional structural engineering services to reinforce the buildings' structural integrity for the new units. These two elements will provide the City a clear path to upgrade the existing and future HVAC system.

PBS Engineers' original fee proposal was received for \$74,000, excluding the value-added elements. Upon request, an updated fee proposal was received to include the optional value-added elements for an additional fee of \$54,000, resulting in a total fee of \$128,000.

Based on a total possible score of 100 points, the review committee established their scoring and ranking on criteria that included staffing capabilities, past performance record, approach to work, and cost control. The consultants were ranked as follows:

Rank	Consultant	Fee Proposal
1	PBS Engineers, Inc.	\$ 128,000 *
2	P2S, Inc.	\$ 130,624
3	LEAF Engineers	\$ 105,287
4	MEP Fusion, Inc.	\$ 49,000

^{*}The original fee (\$74,000) proposal amount was negotiated to include optional value-added elements.

Per the City's Purchasing and Contracting Guidelines, proposals must be evaluated using the Qualification-Based Selection process in accordance with Public Law 92-582, which requires that the selection of professional services be based on demonstrated competence and the professional qualifications necessary for the satisfactory performance of the services at fair and reasonable price.

Based on the results of the RFP process, PBS Engineers, Inc. demonstrates competence through their proposal and is qualified to provide Engineering and Design Services for HVAC Replacement of the Community Center Improvements Project. Additionally, PBS Engineers, Inc. has successfully prepared similar HVAC design projects for City buildings for the City of Cerritos and the City of Poway.

FISCAL IMPACT:

The Fiscal Year 2023-24 Amended Operating Budget includes \$500,000 for the Stanton Community Center Improvements (Task Code 2023-603). The project budget is allocated between two projects: \$300,000 for the HVAC project and \$200,000 for the purchase of an emergency generator. The cost to purchase the HVAC units was \$133,116, leaving a balance of \$166,844 for design. Once the design has been completed, additional funding will be required for the installation of the HVAC units. The following table presents an estimated breakdown of this portion of the project's cost:

Description	Amount				
Consultant Contract	\$	128,000			
Contingency (10%)	\$	12,800			
Total	\$	140,800			

ENVIRONMENTAL IMPACT:

The action requested in this report is categorically exempt under the California Environmental Quality Act, Class 1, Section 15301(b), as operation, repair, and maintenance of existing publicly owned utilities

LEGAL REVIEW:

None.

PUBLIC NOTIFICATION:

Notifications and advertisement were performed as prescribed by law.

STRATEGIC PLAN OBJECTIVES:

Obj. No. 3: Provide a quality infrastructure. Obj. No. 5: Provide a high quality of life.

Obj. No. 6: Maintain and promote a responsive, high-quality, and transparent government.

Prepared by: Elias Garcia, P.E., Assistant City Engineer

Reviewed by: Cesar Rangel P.E., Director of Public Works/City Engineer

Fiscal Impact Reviewed by: Michelle Bannigan, Finance Director

Approved by: Hannah Shin-Heydorn, City Manager

ATTACHMENT:

A. Professional Services Agreement

Attachment: A

Click here to return to the agenda.

CITY OF STANTON PROFESSIONAL SERVICES AGREEMENT FOR

ENGINEERING AND DESIGN SERVICES FOR HVAC REPLACEMENT OF THE COMMUNITY CENTER IMPROVEMENTS PROJECT

1. PARTIES AND DATE.

This Agreement is made and entered into this _____ day of ______, 20____, by and between the City of Stanton, a municipal organization organized under the laws of the State of California with its principal place of business at 7800 Katella Avenue, Stanton, California 90680 ("City") and **PBS Engineers, Inc.**, a **Corporation**, with its principal place of business at **3187 Airway Avenue, Building "C", Costa Mesa, CA 92626** ("Consultant"). City and Consultant are sometimes individually referred to herein as "Party" and collectively as "Parties."

2. RECITALS.

2.1 Consultant.

Consultant desires to perform and assume responsibility for the provision of professional **engineering** consultant services required by the City on the terms and conditions set forth in this Agreement. Consultant represents that it is experienced in providing professional **engineering** consultant services to public clients, is licensed in the State of California, and is familiar with the plans of City.

2.2 Project.

City desires to engage Consultant to render such services for **Engineering and Design Services for HVAC Replacement of the Community Center Improvements** project ("Project") as set forth in this Agreement.

3. TERMS.

3.1 Scope of Services and Term.

- 3.1.1 <u>General Scope of Services</u>. Consultant promises and agrees to furnish to the City all labor, materials, tools, equipment, services, and incidental and customary work necessary to fully and adequately supply the professional **engineering** consultant services necessary for the Project ("Services"). The Services are more particularly described in Exhibit "A" attached hereto and incorporated herein by reference. All Services shall be subject to, and performed in accordance with, this Agreement, the exhibits attached hereto and incorporated herein by reference, and all applicable local, state and federal laws, rules and regulations.
- 3.1.2 <u>Term</u>. The term of this Agreement shall be from **July 10, 2024** to **January 31, 2025**, unless earlier terminated as provided herein.

3.2 Responsibilities of Consultant.

- 3.2.1 Independent Contractors, Control and Payment of Subordinates; <u>Independent Contractor</u>. The Services shall be performed by Consultant or under its supervision. Consultant will determine the means, methods and details of performing the Services subject to the requirements of this Agreement. City retains Consultant on an independent contractor basis and not as an employee. Consultant shall complete, execute, and submit to City a Request for Taxpayer Identification Number and Certification (IRS FormW-9) prior to commencement of any Services under this Agreement. Consultant retains the right to perform similar or different services for others during the term of this Agreement. Any additional personnel performing the Services under this Agreement on behalf of Consultant shall also not be employees of City and shall at all times be under Consultant's exclusive direction and control. Neither City, nor any of its officials, officers, directors, employees or agents shall have control over the conduct of Consultant or any of Consultant's officers, employees, or agents, except as set forth in this Agreement. Consultant shall pay all wages, salaries, and other amounts due such personnel in connection with their performance of Services under this Agreement and as required by law. Consultant shall be responsible for all reports and obligations respecting such additional personnel, including, but not limited to: social security taxes, income tax withholding, unemployment insurance, disability insurance, and workers' compensation insurance.
- 3.2.2 <u>Schedule of Services</u>. Consultant shall perform the Services expeditiously, within the term of this Agreement, and in accordance with the Schedule of Services set forth in Exhibit "B" attached hereto and incorporated herein by reference. Consultant represents that it has the professional and technical personnel required to perform the Services in conformance with such conditions. In order to facilitate Consultant's conformance with the Schedule, City shall respond to Consultant's submittals in a timely manner. Upon request of City, Consultant shall provide a more detailed schedule of anticipated performance to meet the Schedule of Services.
- 3.2.3 <u>Conformance to Applicable Requirements</u>. All work prepared by Consultant shall be subject to the approval of City.
- 3.2.4 <u>Substitution of Key Personnel</u>. Consultant has represented to City that certain key personnel will perform and coordinate the Services under this Agreement. Should one or more of such personnel become unavailable, Consultant may substitute other personnel of at least equal competence upon written approval of City. In the event that City and Consultant cannot agree as to the substitution of key personnel, City shall be entitled to terminate this Agreement for cause. As discussed below, any personnel who fail or refuse to perform the Services in a manner acceptable to the City, or who are determined by the City to be uncooperative, incompetent, a threat to the adequate or timely completion of the Project or a threat to the safety of persons or property, shall be promptly removed from the Project by the Consultant at the request of the City. The key personnel for performance of this Agreement are as follows: **Norman Patel.**
- 3.2.5 <u>City's Representative</u>. The City hereby designates the City Manager, or his or her designee, to act as its representative for the performance of this Agreement ("City's Representative"). City's Representative shall have the power to act on behalf of the City for all purposes under this Contract. The City Manager hereby designates **the Public Works Director**, or his or her designee, as the City's contact for the implementation of the Services hereunder. Consultant shall not accept direction or orders from any person other than the City's Representative or his or her designee.

- 3.2.6 <u>Consultant's Representative</u>. Consultant hereby designates **Norman Patel**, or his or her designee, to act as its representative for the performance of this Agreement ("Consultant's Representative"). Consultant's Representative shall have full authority to represent and act on behalf of the Consultant for all purposes under this Agreement. The Consultant's Representative shall supervise and direct the Services, using his best skill and attention, and shall be responsible for all means, methods, techniques, sequences and procedures and for the satisfactory coordination of all portions of the Services under this Agreement.
- 3.2.7 <u>Coordination of Services</u>. Consultant agrees to work closely with City staff in the performance of Services and shall be available to City's staff, consultants and other staff at all reasonable times.
- 3.2.8 Standard of Care; Performance of Employees. Consultant shall perform all Services under this Agreement in a skillful and competent manner, consistent with the standards generally recognized as being employed by professionals in the same discipline in the State of California. Consultant represents and maintains that it is skilled in the professional calling necessary to perform the Services. Consultant warrants that all employees and subconsultants shall have sufficient skill and experience to perform the Services assigned to them. Finally, Consultant represents that it, its employees and subconsultants have all licenses, permits, qualifications and approvals of whatever nature that are legally required to perform the Services and that such licenses and approvals shall be maintained throughout the term of this Agreement. As provided for in the indemnification provisions of this Agreement, Consultant shall perform, at its own cost and expense and without reimbursement from the City, any services necessary to correct errors or omissions which are caused by the Consultant's failure to comply with the standard of care provided for herein. Any employee of the Consultant or its sub-consultants who is determined by the City to be uncooperative, incompetent, a threat to the adequate or timely completion of the Project, a threat to the safety of persons or property, or any employee who fails or refuses to perform the Services in a manner acceptable to the City, shall be promptly removed from the Project by the Consultant and shall not be re-employed to perform any of the Services or to work on the Project.
- 3.2.9 <u>Laws and Regulations</u>. Consultant shall keep itself fully informed of and in compliance with all local, state and federal laws, rules and regulations in any manner affecting the performance of the Project or the Services, including all Cal/OSHA requirements, and shall give all notices required by law. Consultant shall be liable for all violations of such laws and regulations in connection with Services. If the Consultant performs any work knowing it to be contrary to such laws, rules and regulations, Consultant shall be solely responsible for all costs arising therefrom. Consultant shall defend, indemnify and hold City, its officials, directors, officers, employees, agents and volunteers free and harmless, pursuant to the indemnification provisions of this Agreement, from any claim or liability arising out of any failure or alleged failure to comply with such laws, rules or regulations.

3.2.10 Insurance.

3.2.10.1 <u>Time for Compliance</u>. Consultant shall not commence Work under this Agreement until it has provided evidence satisfactory to the City that it has secured all insurance required under this section. In addition, Consultant shall not allow any subconsultant to

commence work on any subcontract until it has provided evidence satisfactory to the City that the subconsultant has secured all insurance required under this section.

3.2.10.2 <u>Types of Insurance Required</u>. As a condition precedent to the effectiveness of this Agreement for work to be performed hereunder and without limiting the indemnity provisions of the Agreement, the Consultant in partial performance of its obligations under such Agreement, shall procure and maintain in full force and effect during the term of the Agreement, the following policies of insurance. If the existing policies do not meet the Insurance Requirements set forth herein, Consultant agrees to amend, supplement or endorse the policies to do so.

(a) Commercial General Liability: Commercial General Liability Insurance which affords coverage at least as broad as Insurance Services Office "occurrence" form CG 0001, with minimum limits of at least \$1,000,000 per occurrence, and if written with an aggregate, the aggregate shall be double the per occurrence limit. Defense costs shall be paid in addition to the limits.

The policy shall contain no endorsements or provisions limiting coverage for (1) contractual liability; (2) cross liability exclusion for claims or suits by one insured against another; or (3) contain any other exclusion contrary to the Agreement.

- (b) Automobile Liability Insurance: Automobile Liability Insurance with coverage at least as broad as Insurance Services Office Form CA 0001 covering "Any Auto" (Symbol 1) with minimum limits of \$1,000,000 each accident.
- (c) Professional Liability: Professional Liability insurance with minimum limits of \$1,000,000. Covered professional services shall specifically include all work to be performed under the Agreement and delete any exclusions that may potentially affect the work to be performed (for example, any exclusions relating to lead, asbestos, pollution, testing, underground storage tanks, laboratory analysis, soil work, etc.).

If coverage is written on a claims-made basis, the retroactive date shall precede the effective date of the initial Agreement and continuous coverage will be maintained or an extended reporting period will be exercised for a period of at least three (3) years from termination or expiration of this Agreement.

(d) Workers' Compensation: Workers' Compensation Insurance, as required by the State of California and Employer's Liability Insurance with a limit of not less than \$1,000,000 per accident for bodily injury and disease.

- 3.2.10.3 <u>Endorsements</u>. Required insurance policies shall not be in compliance if they include any limiting provision or endorsement that has not been submitted to the City for approval.
 - (a) The policy or policies of insurance required by Section 3.2.10.2 (a) Commercial General Liability shall be endorsed to provide the following:
 - (1) Additional Insured: The City, its officials, officers, employees, agents, and volunteers shall be additional insureds with regard to liability and defense of suits or claims arising out of the performance of the Agreement.
 - Additional Insured Endorsements shall not (1) be restricted to "ongoing operations"; (2) exclude "contractual liability"; (3) restrict coverage to "sole" liability of Consultant; or (4) contain any other exclusions contrary to the Agreement.
 - (2) Cancellation: Required insurance policies shall not be canceled or the coverage reduced until a thirty (30) day written notice of cancellation has been served upon the City except ten (10) days shall be allowed for non-payment of premium.
 - (b) The policy or policies of insurance required by Section 3.2.10.2 (b) Automobile Liability and (d) Professional Liability shall be endorsed to provide the following:
 - (1) Cancellation: Required insurance policies shall not be canceled or the coverage reduced until a thirty (30) day written notice of cancellation has been served upon the City except ten (10) days shall be allowed for non-payment of premium.
 - (c) The policy or policies of insurance required by Section 3.2.10.2 (e) Workers' Compensation shall be endorsed to provide the following:
 - (1) Waiver of Subrogation: A waiver of subrogation stating that the insurer waives all rights of subrogation against the indemnified parties.
 - (2) Cancellation: Required insurance policies shall not be canceled or the coverage reduced until a thirty (30) day written notice of cancellation has been served upon the City except ten (10) days shall be allowed for non-payment of premium.

- 3.2.10.4 <u>Primary and Non-Contributing Insurance</u>. All insurance coverages shall be primary and any other insurance, deductible, or self-insurance maintained by the indemnified parties shall not contribute with this primary insurance. Policies shall contain or be endorsed to contain such provisions.
- 3.2.10.5 <u>Waiver of Subrogation</u>. Required insurance coverages shall not prohibit Consultant from waiving the right of subrogation prior to a loss. Consultant shall waive all subrogation rights against the indemnified parties. Policies shall contain or be endorsed to contain such provisions.
- 3.2.10.6 <u>Deductible</u>. Any deductible or self-insured retention must be approved in writing by the City and shall protect the indemnified parties in the same manner and to the same extent as they would have been protected had the policy or policies not contained a deductible or self-insured retention.
- 3.2.10.7 Evidence of Insurance. The Consultant, concurrently with the execution of the Agreement, and as a condition precedent to the effectiveness thereof, shall deliver either certified copies of the required policies, or original certificates and endorsements on forms approved by the City. The certificates and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf. At least fifteen (15 days) prior to the expiration of any such policy, evidence of insurance showing that such insurance coverage has been renewed or extended shall be filed with the City. If such coverage is cancelled or reduced, Consultant shall, within ten (10) days after receipt of written notice of such cancellation or reduction of coverage, file with the City evidence of insurance showing that the required insurance has been reinstated or has been provided through another insurance company or companies.
- 3.2.10.8 <u>Failure to Maintain Coverage</u>. Consultant agrees to suspend and cease all operations hereunder during such period of time as the required insurance coverage is not in effect and evidence of insurance has not been furnished to the City. The City shall have the right to withhold any payment due Consultant until Consultant has fully complied with the insurance provisions of this Agreement.

In the event that the Consultant's operations are suspended for failure to maintain required insurance coverage, the Consultant shall not be entitled to an extension of time for completion of the Services because of production lost during suspension.

- 3.2.10.9 <u>Acceptability of Insurers</u>. Each such policy shall be from a company or companies with a current A.M. Best's rating of no less than A:VII and authorized to do business in the State of California, or otherwise allowed to place insurance through surplus line brokers under applicable provisions of the California Insurance Code or any federal law.
- 3.2.10.10 <u>Insurance for Subconsultants</u>. All Subconsultants shall be included as additional insureds under the Consultant's policies, or the Consultant shall be responsible for causing Subconsultants to purchase the appropriate insurance in compliance with the terms of these Insurance Requirements, including adding the City as an Additional Insured to the Subconsultant's policies.

3.2.11 <u>Safety</u>. Consultant shall execute and maintain its work so as to avoid injury or damage to any person or property. In carrying out its Services, the Consultant shall at all times be in compliance with all applicable local, state and federal laws, rules and regulations, and shall exercise all necessary precautions for the safety of employees appropriate to the nature of the work and the conditions under which the work is to be performed. Safety precautions as applicable shall include, but shall not be limited to: (A) adequate life protection and life saving equipment and procedures; (B) instructions in accident prevention for all employees and subconsultants, such as safe walkways, scaffolds, fall protection ladders, bridges, gang planks, confined space procedures, trenching and shoring, equipment and other safety devices, equipment and wearing apparel as are necessary or lawfully required to prevent accidents or injuries; and (C) adequate facilities for the proper inspection and maintenance of all safety measures.

3.3 Fees and Payments.

- 3.3.1 <u>Compensation</u>. Consultant shall receive compensation, including authorized reimbursements, for all Services rendered under this Agreement at the rates set forth in Exhibit "B" attached hereto and incorporated herein by reference. The total compensation shall not exceed **ONE HUNDRED TWENTY-EIGHT THOUSAND DOLLARS** (\$128,000) ("Total Compensation") without written approval of City's **Public Works Director**. Extra Work may be authorized, as described below, and if authorized, will be compensated at the rates and manner set forth in this Agreement.
- 3.3.2 <u>Payment of Compensation</u>. Consultant shall submit to City a monthly itemized statement which indicates work completed and hours of Services rendered by Consultant. The statement shall describe the amount of Services and supplies provided since the initial commencement date, or since the start of the subsequent billing periods, as appropriate, through the date of the statement. City shall, within 45 days of receiving such statement, review the statement and pay all approved charges thereon.
- 3.3.3 <u>Reimbursement for Expenses</u>. Consultant shall not be reimbursed for any expenses unless authorized in writing by City.
- 3.3.4 Extra Work. At any time during the term of this Agreement, City may request that Consultant perform Extra Work. As used herein, "Extra Work" means any work which is determined by City to be necessary for the proper completion of the Project, but which the Parties did not reasonably anticipate would be necessary at the execution of this Agreement. Consultant shall not perform, nor be compensated for, Extra Work without written authorization from the City.
- 3.3.5 <u>Prevailing Wages</u>. Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the Services are being performed as part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is \$1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. City shall provide Consultant with a copy of the prevailing rates of per diem wages in effect at the

commencement of this Agreement. Consultant shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the Services available to interested parties upon request, and shall post copies at the Consultant's principal place of business and at the project site. It is the intent of the parties to effectuate the requirements of sections 1771, 1774, 1775, 1776, 1777.5, 1813, and 1815 of the Labor Code within this Agreement, and Consultant shall therefore comply with such Labor Code sections to the fullest extent required by law. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees, agents and volunteers free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

3.4 Accounting Records.

3.4.1 <u>Maintenance and Inspection</u>. Consultant shall maintain complete and accurate records with respect to all costs and expenses incurred under this Agreement. All such records shall be clearly identifiable. Consultant shall allow a representative of City during normal business hours to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to the Agreement for a period of three (3) years from the date of final payment under this Agreement.

3.5 General Provisions.

3.5.1 Termination of Agreement.

- 3.5.1.1 <u>Grounds for Termination</u>. City may, by written notice to Consultant, terminate the whole or any part of this Agreement at any time and without cause by giving written notice to Consultant of such termination, and specifying the effective date thereof, at least seven (7) days before the effective date of such termination. Upon termination, Consultant shall be compensated only for those services which have been adequately rendered to City, and Consultant shall be entitled to no further compensation. Consultant may not terminate this Agreement except for cause.
- 3.5.1.2 <u>Effect of Termination</u>. If this Agreement is terminated as provided herein, City may require Consultant to provide all finished or unfinished Documents and Data and other information of any kind prepared by Consultant in connection with the performance of Services under this Agreement. Consultant shall be required to provide such document and other information within fifteen (15) days of the request.
- 3.5.1.3 <u>Additional Services</u>. In the event this Agreement is terminated in whole or in part as provided herein, City may procure, upon such terms and in such manner as it may determine appropriate, services similar to those terminated.
- 3.5.2 <u>Delivery of Notices</u>. All notices permitted or required under this Agreement shall be given to the respective parties at the following address, or at such other address as the respective parties may provide in writing for this purpose:

Consultant:

PBS Engineers, Inc. 3187 Airway Avenue, Building "C" Costa Mesa, CA 92626

Attn: Norman Patel

City:

City of Stanton 7800 Katella Avenue Stanton, CA 90680

Attn: Cesar Rangel, Director of Public Works

Such notice shall be deemed made when personally delivered or when mailed, forty-eight (48) hours after deposit in the U.S. Mail, first class postage prepaid and addressed to the party at its applicable address. Actual notice shall be deemed adequate notice on the date actual notice occurred, regardless of the method of service.

3.5.3 Ownership of Materials and Confidentiality.

3.5.3.1 <u>Documents & Data; Licensing of Intellectual Property.</u> This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subconsultants to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subconsultant prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were prepared by design professionals other than Consultant or provided to Consultant by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

3.5.3.2 <u>Confidentiality</u>. All ideas, memoranda, specifications, plans, procedures, drawings, descriptions, computer program data, input record data, written information, and other Documents and Data either created by or provided to Consultant in connection with the performance of this Agreement shall be held confidential by Consultant. Such materials shall not, without the prior written consent of City, be used by Consultant for any purposes other than the performance of the Services. Nor shall such materials be disclosed to any person or entity not connected with the performance of the Services or the Project. Nothing furnished to Consultant which is otherwise known to Consultant or is generally known, or has become known, to the related industry shall be deemed confidential. Consultant shall not use City's name or insignia, photographs of the Project, or any publicity pertaining to the Services or the Project in any magazine, trade paper, newspaper, television or radio production or other similar medium without the prior written consent of City.

- Consultant's proprietary information ("Proprietary Information") unless the City's legal counsel determines that the release of the Proprietary Information is required by the California Public Records Act or other applicable state or federal law, or order of a court of competent jurisdiction, in which case the City shall notify Consultant of its intention to release Proprietary Information. Consultant shall have five (5) working days after receipt of the Release Notice to give City written notice of Consultant's objection to the City's release of Proprietary Information. Consultant shall indemnify, defend and hold harmless the City, and its officers, directors, employees, and agents from and against all liability, loss, cost or expense (including attorney's fees) arising out of a legal action brought to compel the release of Proprietary Information. City shall not release the Proprietary Information after receipt of the Objection Notice unless either: (1) Consultant fails to fully indemnify, defend (with City's choice of legal counsel), and hold City harmless from any legal action brought to compel such release; and/or (2) a final and non-appealable order by a court of competent jurisdiction requires that City release such information.
- 3.5.4 <u>Cooperation; Further Acts.</u> The Parties shall fully cooperate with one another, and shall take any additional acts or sign any additional documents as may be necessary, appropriate or convenient to attain the purposes of this Agreement.
- 3.5.5 <u>Attorney's Fees</u>. If either party commences an action against the other party, either legal, administrative or otherwise, arising out of or in connection with this Agreement, the prevailing party in such litigation shall be entitled to have and recover from the losing party reasonable attorney's fees and all other costs of such action.

3.5.6 Indemnification.

To the fullest extent permitted by law, Consultant shall defend (with counsel of City's choosing), indemnify and hold the City, its officials, officers, employees, volunteers and agents free and harmless from any and all claims, demands, causes of action, costs, expenses, liability, loss, damage or injury of any kind, in law or equity, to property or persons, including wrongful death, in any manner arising out of, pertaining to, or incident to any alleged acts, errors or omissions, or willful misconduct of Consultant, its officials, officers, employees, subcontractors, consultants or agents in connection with the performance of the Consultant's Services, the Project or this Agreement, including without limitation the payment of all damages, expert witness fees and attorneys fees and other related costs and expenses. Consultant's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by the Consultant or the City, its officials, officers, employees, agents or volunteers.

If Consultant's obligation to defend, indemnify, and/or hold harmless arises out of Consultant's performance as a "design professional" (as that term is defined under Civil Code section 2782.8), then, and only to the extent required by Civil Code section 2782.8, which is fully incorporated herein, Consultant's indemnification obligation shall be limited to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant, and, upon Consultant obtaining a final adjudication by a court of competent jurisdiction, Consultant's liability for such claim, including the cost to defend, shall not exceed the Consultant's proportionate percentage of fault.

The obligation to indemnify, as provided herein, shall survive the termination or expiration of this Agreement.

- 3.5.7 <u>Entire Agreement</u>. This Agreement contains the entire Agreement of the parties with respect to the subject matter hereof, and supersedes all prior negotiations, understandings or agreements. This Agreement may only be modified by a writing signed by both parties.
- 3.5.8 <u>Governing Law</u>. This Agreement shall be governed by the laws of the State of California. Venue shall be in Orange County.
- 3.5.9 <u>Time of Essence</u>. Time is of the essence for each and every provision of this Agreement.
- 3.6 <u>City's Right to Employ Other Consultants</u>. City reserves right to employ other consultants in connection with this Project.
- **3.7** <u>Successors and Assigns</u>. This Agreement shall be binding on the successors and assigns of the parties.
- **3.8** Assignment or Transfer. Consultant shall not assign, hypothecate, or transfer, either directly or by operation of law, this Agreement or any interest herein without the prior written consent of the City. Any attempt to do so shall be null and void, and any assignees, hypothecates or transferees shall acquire no right or interest by reason of such attempted assignment, hypothecation or transfer.
- 3.9 <u>Construction; References; Captions</u>. Since the Parties or their agents have participated fully in the preparation of this Agreement, the language of this Agreement shall be construed simply, according to its fair meaning, and not strictly for or against any Party. Any term referencing time, days or period for performance shall be deemed calendar days and not work days. All references to Consultant include all personnel, employees, agents, and subconsultants of Consultant, except as otherwise specified in this Agreement. All references to City include its elected officials, officers, employees, agents, and volunteers except as otherwise specified in this Agreement. The captions of the various articles and paragraphs are for convenience and ease of reference only, and do not define, limit, augment, or describe the scope, content, or intent of this Agreement.
- **3.10** <u>Amendment; Modification</u>. No supplement, modification, or amendment of this Agreement shall be binding unless executed in writing and signed by both Parties.
- **3.11** <u>Waiver.</u> No waiver of any default shall constitute a waiver of any other default or breach, whether of the same or other covenant or condition. No waiver, benefit, privilege, or service voluntarily given or performed by a Party shall give the other Party any contractual rights by custom, estoppel, or otherwise.
- **3.12 No Third Party Beneficiaries.** There are no intended third party beneficiaries of any right or obligation assumed by the Parties.

- **3.13** <u>Invalidity</u>: <u>Severability</u>. If any portion of this Agreement is declared invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions shall continue in full force and effect.
- 3.14 Prohibited Interests. Consultant maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Consultant, to solicit or secure this Agreement. Further, Consultant warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, City shall have the right to rescind this Agreement without liability. For the term of this Agreement, no member, officer or employee of City, during the term of his or her service with City, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising therefrom.
- 3.15 <u>Equal Opportunity Employment</u>. Consultant represents that it is an equal opportunity employer and it shall not discriminate against any subconsultant, employee or applicant for employment because of race, religion, color, national origin, handicap, ancestry, sex or age. Such non-discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination. Consultant shall also comply with all relevant provisions of City's Minority Business Enterprise program, Affirmative Action Plan or other related programs or guidelines currently in effect or hereinafter enacted.
- **3.16** <u>Labor Certification</u>. By its signature hereunder, Consultant certifies that it is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that Code, and agrees to comply with such provisions before commencing the performance of the Services.
- **3.17** <u>Authority to Enter Agreement.</u> Consultant has all requisite power and authority to conduct its business and to execute, deliver, and perform the Agreement. Each Party warrants that the individuals who have signed this Agreement have the legal power, right, and authority to make this Agreement and bind each respective Party.
- **3.18** <u>Counterparts</u>. This Agreement may be signed in counterparts, each of which shall constitute an original.
- **3.19** <u>Declaration of Political Contributions</u>. Consultant shall, throughout the term of this Agreement, submit to City an annual statement in writing declaring any political contributions of money, in-kind services, or loan made to any member of the City Council within the previous twelve-month period by the Consultant and all of Consultant's employees, including any employee(s) that Consultant intends to assign to perform the Services described in this Agreement.
- **3.20** <u>Funding Requirements.</u> Consultant shall comply, and shall ensure all subcontractors and/or subconsultants comply with, all applicable terms of the funding agreement between the County of Orange and the City (Contract # 012-23010767-CV) (the "Funding

Agreement"), funded by the CARES act through the U.S. Department of Housing & Urban Development, attached hereto as Exhibit "C" and incorporated herein by reference, including, without limitation the Federal Procurement Regulations set forth in 2 C.F.R. 200.316 through 2 C.F.R. 200.328.

3.21 Subcontracting.

3.21.1 <u>Prior Approval Required</u>. Consultant shall not subcontract any portion of the work required by this Agreement, except as expressly stated herein, without prior written approval of City. Subcontracts, if any, shall contain a provision making them subject to all provisions stipulated in this Agreement.

[Signatures on following page.]

IN WITNESS WHEREOF, the part on this day of, 2024.	ies have executed this Professional Services Agreement
CITY OF STANTON	PBS Engineers, Inc.
By: Hannah Shin-Heydorn City Manager	By: Name: Title:
ATTEST:	
By: Patricia Vazquez City Clerk	By:
APPROVED AS TO FORM:	
By:	
Best Best & Krieger LLP City Attorney	

EXHIBIT "A" SCOPE OF SERVICES

REQUEST FOR PROPOSALS (RFP)

FOR

ENGINEERING AND DESIGN SERVICES FOR HVAC REPLACEMENT OF THE COMMUNITY CENTER IMPROVEMENTS PROJECT

Community Development Block Grant (CDBG) No. 012-23010767-CV



City of Stanton

Public Works & Engineering Department 7800 Katella Avenue Stanton, CA 90680 (714) 379-9222 | StantonCA.gov

Approved for Advertising:

Cesar Rangel, P.E.

Public Works Director/City Engineer

CRangel@StantonCA.gov

(714) 890-4203

KEY RFP DATES (Subject to Change):

Issue Date: Tuesday, March 19, 2024 Deadline for Questions: Tuesday, April 9, 2024

Proposal Due Date: Thursday, April 18, 2024, at 4:00 p.m.

Presentation/Interviews: TBD (as necessary)



TABLE OF CONTENTS

SECTION I. GENERAL DESCRIPTION AND INTRODUCTION	3
SECTION II. PROJECT BACKGROUND	3
SECTION III. SCOPE OF SERVICES	4
SECTION IV. SUBMISSION REQUIREMENTS	8
SECTION V. SELECTION CRITERIA	10
SECTION VI. SELECTION PROCESS	11
SECTION VII. SUBMISSION DEADLINE	12
SECTION VIII. REQUESTS FOR ADDITIONAL INFORMATION	13
SECTION IX. TAXES AND LICENSES	13
SECTION X. PAYMENT TO CONSULTANT	13
SECTION XI. INSURANCE	14
SECTION XII. TERMINATION FOR CONVENIENCE OF THE CITY	15
SECTION XIII. INDEPENDENT CONTRACTOR	16
SECTION XIV. CONTRACT	16
SECTION XV. GENERAL CONDITIONS	16
SECTION XVI. PREVAILING WAGE	17

EXHIBIT A: VICINITY MAP

EXHIBIT B: AS-BUILT PLANS

EXHIBIT C: HVAC UNITS SPECIFICATIONS

EXHIBIT D: PROPOSAL ACKNOWLEDGEMENT FORM

EXHIBIT E: SAMPLE PROFESSIONAL SERVICES AGREEMENT



I. GENERAL DESCRIPTION AND INTRODUCTION

The City of Stanton ("City") is requesting proposals from qualified consultants to provide Engineering and Design Services for the replacement of HVAC system for the Community Center Improvements Project (Project) located at 7800 Katella Avenue, Stanton, CA 90680. The design will be funded by U.S. Housing and Urban Development (HUD) received from the County of Orange.

Proposals must conform to the requirements of this Request for Proposal (RFP) and proposals must be submitted in a sealed envelope to the Department of Public Works and Engineering no later than 4:00 p.m. on Thursday, April 18, 2024. The consultant contract is anticipated to be awarded at a May City Council meeting. The City reserves the right to waive any irregularity in any proposal, or to reject any proposal that does not comply with this RFP. The city alone, using the criteria determined by the city, will select the qualified candidate.

The successful Consultant will be required to enter into an agreement with the city, which will include the requirements of this RFP, as well as other requirements to be specified at a later date. By submitting a proposal, the Consultant agrees to all of the terms of this RFP.

Please direct any questions by the deadline for questions listed on the cover page of this RFP to Elias Garcia, Assistant City Engineer via email at EGarcia@StantonCA.gov.

II. PROJECT BACKGROUND

New HVAC units will bolster the City's ability to deliver essential services to the public during emergencies, including pandemics such as COVID-19. Public facilities, such as the Stanton Community Center, play critical roles in providing shelter, electricity, internet access and other services to the public during emergencies.

On May 23, 2023, the City Council authorize a purchase order for eight (8) HVAC units from Russell Sigler, Inc. in the amount of \$133,116 for the Project. The HVAC units are anticipated to arrive late March 2024.



The design of the Project will require extensive coordination with city staff from various departments, but mainly the Public Works Department and Building Division.

HVAC System Replacement – Conduct a site inspection/analysis of the work site and existing equipment, develop design plans, including but not limited to replacement of existing HVAC units with new City furnished HVAC units, upsize necessary air ducts, upsizing of existing gas connection lines, installation of curb adaptors, roofing/framing improvements, obtain all required permits from applicable agencies and permits for construction and operation, confirmation of Cal Green compliance requirements.

The City desires to have Plans, Specifications, and Estimate ("PS&E"), a complete bid package and procurement of necessary permits for the project. The City will furnish the boiler plate specifications. Plans shall include but not limited to, plan and profile views, plans for structural, MEP and civil improvements. Final plans shall be scaled and in reproducible sheets. The selected consultant shall conduct all engineering and administrative tasks necessary to complete the project.

III. SCOPE OF SERVICES

Project tasks shall include, but are not necessarily limited to, those items noted below. If the consultant feels that additional tasks are warranted, they must be clearly identified in the consultant's proposal.

The development of the design for the Project requires the following objectives:

- Project kick-off meeting.
 - In-person meeting with City staff to discuss all aspects of the project including project timeframe, design alternatives, budget, construction alternatives, deliverables, and expectations. Conduct site visits to review existing site conditions.
- Permitting
 - Consultant shall coordinate and assist the City to obtain a building permit from the City of Stanton. The Consultant shall verify that work complies with permitting agency requirements for design and construction unhindered.



The Consultant's design shall include all disciplines needed for a complete design of the three priorities and shall include but not limited to mechanical, electrical, structural. In addition an air balance report and structural calculations. Develop construction drawings, submit and obtain approval from the City's Planning & Building Division. This task also includes responding to comments by the City's Planning & Building Division to obtain final approval.

Survey

 Consultant shall perform the required surveying scope for this project.

Existing HVAC System Assessment

- o The Consultant shall conduct a thorough assessment of the existing HVAC system for the purpose of identifying system deficiencies and recommending solutions. The assessment should determine whether or not the existing HVAC system provides adequate cooling, heating, air movement and temperature control, and thermal comfort in accordance with California state building ventilation requirements, Title 24, ASHRAE, ADA and all other applicable codes and regulations. Troubleshooting the system for deficiencies will be arranged with Public Works Department staff to minimize disruption to City Hall staff. The identification of HVAC system deficiencies shall be comprehensive in nature and should consider, at a minimum: current system performance, maintenance requirements (including a review of records of past attempts to improve the system), operations efficiency (including costs of operation), remaining system operational life, inadequate design, and any other deficiencies observed. The Assessment findings will be written in a draft report and submitted to the Public Works Director at a monthly progress meeting for discussion and comment. Two (2) copies will be provided to the director and it will also be made available in electronic form (Microsoft Word). Comments will be incorporated and the final Assessment findings will be presented to the City, as two (2) final copies and in Word electronic format as well. Upon acceptance by the Public Works Director, approval will be given to begin the following task.
- Proposed HVAC System Improvements Recommendations
 - The Consultant shall prepare a report outlining recommendations for HVAC system improvements, including modifying the existing equipment as an option. List the proposed



system and cost estimates (design, installation and Operation and Maintenance costs). The proposed solutions shall be based on the consultant's professional expertise and experience and shall take into consideration numerous factors including existing HVAC performance, installation cost, operational and maintenance costs, efficiency, system operational life, and input from City staff. The Recommendations Report findings will be written in a draft report and submitted to the Public Works Director at a monthly progress meeting for discussion and comment. Two (2) copies will be provided to the director and it will also be made available in electronic form (Microsoft Word). Comments will be incorporated and the final Recommendation Report will be presented to the City, as two (2) final copies and in Word electronic format as well. The final report will be wet stamped and signed by a professional Mechanical Engineer licensed in the State of California.

Final Plans, Specifications and Estimates (PS&E)

Upon review of the recommendations report as described in the previous task, the Public Works Director shall provide approval to proceed with this task. This task shall include comprehensive engineering/HVAC design services for the development all necessary bidding documents including plans, specifications and estimates (PS&E) to be used for the construction of the improvements and should therefore be complete in detail and contain all necessary information. Drawings shall conform to standard professional practice and applicable rules, codes and regulations (local, state and federal).

The City intends to bid this part of the scope out for construction, therefore the proposal must include services related to the bidding phase (i.e. response to RFIs). After final approval by the Building Division, three (3) complete sets of bidding documents shall be provided and one final approved set in an electronic format.

- o Plans
 - The Consultant shall submit PDF plans, specifications and cost estimate to the City for each status check, including all pertinent electronic files, as requested by City staff. Plans shall be submitted at 30%, 60%, 90% for City review and concurrence.
- o Specifications
 - Consultant shall prepare the project specifications, bid form, general and special provisions, and technical



specifications for project. This information shall be organized in a format that can accommodate items being added or deleted. These documents are to be submitted with the 60% and 90% Plan submittal. Minor corrections may need to be included when the final 100% Bid Set of Plans are promulgated.

Cost Estimate

The engineer's estimate for construction costs shall be based on local unit costs. Estimates shall be organized in a line-item format so that non-essential items can be added or deleted depending on available funding. Engineering estimates are to be submitted with the 30% and 90% plan submittals.

QA/QC shall be performed for each deliverable. The consultant shall refrain from submitting incomplete work and from submitting irrelevant information on the plans, specifications, and cost estimates. Submittals are deemed complete only after review and acceptance is provided by the City. The 100% PS&E submittal is the 90% submittal documents with all compliance comments resolved, all others dispositioned as necessary, and documents approved and issued for acceptance by the City.

• Construction Support

o The Consultant shall provide support with project equipment submittals, clarifications with design, review submittals for change orders, prepare record drawings, and approval of work assignments during construction of the project. The Consultant shall provide responses within two (2) working days of receiving a notices to avoid delaying construction efforts. The Consultant will be expected to attend the pre-construction meeting, construction field progress meetings (three (3) meetings minimum) and the post-construction meeting. A separate optional fee should be included with the proposal for this task.

Deliverable Expected Completion from Kick-off Meeting

Existing HVAC System Assessment Week 4

Proposed HVAC System Improvements Week 8

Permitting Weeks 8-16

PS&E Weeks 8-20



Advertise for Construction

Week 24

Construction Support

TBD

Consultant is encouraged to identify any additional work that is not specified in this Scope of Work that would be, in its opinion, necessary to complete the project as defined herein. Consultant may propose additional services that in its opinion will improve the efficiency and quality of the project. If identified, the additional work or services must be included in the proposal but separated out as an additional task in the Consultant's Fee Schedule.

IV. <u>SUBMISSION REQUIREMENTS</u>

Proposals and all other information and documents submitted in response to this RFP are subject to the California Public Records Act, which generally mandates the disclosure of documents in the possession of the City upon the request of any person, unless the content of the document falls within a specific exemption category.

Three (3) copies of the Proposal and one (1) copy of the Fee Proposal must be submitted containing the following elements:

- Proposers must submit three (3) bound copies of their proposal to the City for review.
- 8-1/2" x 11" sheet sizes should be used for the text, with 11" x 17" sheet sizes for any fold-out drawings.
- The proposal shall be limited to thirty-five (35) pages, double-sided. Resumes for proposed personnel will <u>not</u> be counted towards the page limit. Otherwise all other sheets apply.
- Proposals should be as concise as possible and specific to this project.

LETTER OF TRANSMITTAL

A Letter of Transmittal shall be addressed to Cesar Rangel, Director of Public Works/City Engineer, and, at a minimum, must contain the following information:

 Identification of the proposing Consultant who will have contractual responsibility with the City. Identification shall include the legal name of the company, corporate address, telephone number, and email address of the contact person identified during the period of proposal evaluation.



- A statement representing that the Consultant has thoroughly examined and become familiar with the work required in this RFP and is capable of performing quality work to achieve the objectives of the City.
- Acknowledgement of receipt of all addenda, if any.
- A statement to the effect that the proposal shall remain valid for a period of not less than ninety (90) days from the date of submittal.
- Signature of the official authorized to bind Consultant to the terms of the proposal.
- Signed statement attesting that all information submitted with the proposal is true and correct.

WRITTEN PROPOSAL

The Proposal shall consist of the following sections:

- 1. Letter of Transmittal. Contents of the Letter of Transmittal listed above.
- 2. **Firm Structure and History**. Including the firm's experience managing projects similar in magnitude and scope, structure (organization chart), credentials, background, and ownership of the firm. Include the firm's previous experience with Federal Funded Grant projects.
- 3. **Key personnel.** List qualifications of personnel with resumes and a breakdown of responsibilities. The Firm's project manager, who will be responsible for planning, coordinating, and conducting the majority of the work, must be identified and committed to the project. The City must approve changes to key personnel committed to work on the project subsequent to award of contract. Resumes must be submitted for key personnel who will be assigned to this project.
- 4. A narrative briefly describing the proposed approach using general descriptions for the activities.
- 5. A list of proposed sub-consultants, sub-contractors, suppliers, and manufacturers, including their qualifications pertinent to this project.
- 6. A client reference list from previous City / Government Agency projects of similar scope and magnitude. List should include key personnel-contacts and their position with the agency.
- 7. A schedule indicating proposed time and duration for completion of project.
- 8. Evidence of compliance with City insurance requirements.
- 9. **Exceptions and Deviations.** Contractor shall state any exceptions or deviations from the requirements of this RFP, segregating "technical" exceptions from "contractual" exceptions. Where the Consultant wishes to



propose alternative approaches to meeting the City's technical or contractual requirements, these shall be thoroughly explained. If no contractual exceptions are noted, Consultant will be deemed to have no objection to the contract requirements as set forth in **EXHIBIT E**, "Sample Professional Services Agreement."

10. **Proposal Acknowledgement Form.** Contractor shall complete and submit **EXHIBIT D**, "Proposal Acknowledgement Form." Failure to submit this signed form will result in the disqualification of the Consultant's proposal.

SEPARATE FEE PROPOSAL

Consultant fee schedule included with the submittal but in a **separate sealed envelope**. The proposal shall include:

- a. Total Project Cost Proposal and hourly rate schedule.
- b. A table indicating the anticipated staff-hours dedicated to perform each of the tasks to complete the project.

Additional information can be found under Section X, "Payment to Consultant," below.

V. SELECTION CRITERIA

Submitted proposals will be evaluated based on the following factors, but may not be limited to just these factors:

Criteria	Approximate Weight
Staffing Capabilities / Technical Competence. Candidates shall have knowledge of the principles and practices of engineering as related to design, construction and maintenance of public facilities, as well as an understanding of the practices, applicable laws and state permits; codes and standards applicable to public works construction.	15%
Approach to Work. Methodology to be implemented to address and coordinate the various elements within the program.	35%
Past Performance Record. Experience in completion of projects of similar complexity and scale for other municipal agencies within Southern California is desirable. Efficiency and timeliness in completion of project.	35%



Cost. Reasonableness of the firm's fixed price and or hourly rates, and competitiveness of quoted firm-fixed prices with other proposals received.	10%
Exceptions and deviations from the City's standard Professional Services Agreement.	5%

VI. SELECTION PROCESS

Per California law, the procurement of Professional Services must be selected on the basis of qualifications, or Qualifications Based Selection (QBS) in accordance with Public Law 92-582. The procurement of Professional Services can be one-time or multi-year. Professional services contracts have provisions for specific terms, compensation amounts, and scopes of services.

The City reserves the right to require in-person interviews with Consultants, if deemed necessary, after the evaluation of the written proposals. In this case, the Consultants of the three (3) highest-scoring written proposals will be invited to interviews prior to final selection of the Consultant.

Each RFP will be reviewed to determine if it meets the submittal requirements contained within this RFP. Failure to meet the requirements for the RFP will be cause for rejection of the proposal. The city may reject any proposal if it is conditional, incomplete, or contains irregularities. The City may waive an immaterial deviation in a proposal, but this shall in no way modify the proposal document or excuse the Consultant from compliance with the contract requirements if the Consultant is awarded the contract.

The successful Consultant to whom work is awarded shall, within ten (10) days after being notified, enter into a contract with the City for the work in accordance with the specifications and shall furnish all required documents necessary to enter into said contract. Failure of the successful bidder to execute the contract within the ten (10)-day window shall be just cause for the City to contract with the next responsible Consultant.



VII. SUBMISSION DEADLINE

In order to be considered, the Consultant must submit three (3) copies of the Service Proposal, and one (1) copy of the Fee Proposal in a separate, sealed envelope to the following office:

City of Stanton – City Hall Public Works & Engineering Department (Public Counter) 7800 Katella Avenue Stanton, CA 90680-3162 Attention: Elias Garcia, P.E., T.E.

The proposal outer envelope shall be labeled:

PROPOSAL FOR ENGINEERING AND DESIGN OF THE

HVAC REPLACEMENT OF THE COMMUNITY CENTER IMPROVEMENTS PROJECT

The proposal must be received at the department listed above no later than the date and time listed on the cover. The City is not responsible for proposals submitted to the incorrect department.

There is no expressed or implied obligation for the City to reimburse firms for any expenses incurred in preparing proposals in response to this request. Materials submitted by respondents are subject to public inspection under the California Public Records Act (Government Code Sec. 6250 *et seq.*). Any language purporting to render the entire proposal confidential or proprietary will be ineffective and disregarded.

The City reserves the right to retain all proposals submitted, and to use any idea in a proposal, regardless of whether the proposal was selected. Submission of a proposal indicates acceptance by the firm of the conditions contained in the RFP, unless clearly and specifically noted in the proposal submitted and confirmed in the contract between the City and the selected firm.

All property rights, including publication rights of all reports produced by the selected firm in connection with services performed under this agreement, shall be vested in the City.



VIII. REQUESTS FOR ADDITIONAL INFORMATION

All questions and/or inquiries regarding this RFP shall be directed to:

Elias Garcia, P.E., T.E.
Assistant City Engineer
City of Stanton
7800 Katella Avenue
Stanton, CA 90680-3162
Email: EGarcia@StantonCA.gov

All questions and/or inquiries shall be submitted by Tuesday, April 9, 2024. If the City chooses to respond to such inquiries, written responses will be made available through the City's bidding support platform, <u>bidnet direct</u> (https://www.stantonca.gov/departments/public_works_engineering/request_for_proposals_and_bids/) by Monday, April 15, 2024.

Consultants are responsible to verify receipt of any addenda issued. We are aware some of our e-mails go to "junk". If you do not receive any addenda by **Monday, April 15, 2024**, please verify any addenda was issued by contacting Elias Garcia by e-mail. Confirmation of receipt of all addenda is part of the Proposal Acknowledgement Form (EXHIBIT D).

IX. TAXES AND LICENSES

All taxes and licenses, including, but not limited to, a Stanton City Business License and appropriate Contractor's license, required for this work shall be obtained at the sole expense of the Contractor.

X. PAYMENT TO CONSULTANT

This work is to be performed for a "Not-to-Exceed Fixed Fee."

The Consultant shall provide a "Payment Schedule" indicating the fee for individual tasks with a "Not-to-Exceed Fixed Fee" which shall be the sum of all tasks.

Tasks shall include, but not be limited to, all Professional Consultant Services necessary to complete the work covered by this Proposal.



The City will pay the Consultant for work completed as identified in the Payment Schedule.

Progress payments shall be based on tasks performed as identified in the Payment Schedule. Monthly invoices will specifically identify job title, personhours, and costs incurred by each task.

Sub-categorization of task is permitted to better define the task for payment.

Reimbursement costs such as mileage, printing, telephone, photographs, postage and delivery, are to be included in the "Not-to-Exceed Fixed Fee."

All tasks including labor and reimbursable costs such as mileage, printing, telephone, photographs, postage, and delivery shall be supporting documentation presented at the time payment is requested.

The City will pay the Consultant for all acceptable services rendered in accordance with the "Agreement for Professional Consultant Services."

When the Consultant is performing, or is requested to perform, work beyond the scope of service in the "Agreement for Professional Consultant Services," an amendment to the agreement will be executed between the City and Consultant.

Payment will be based on hourly rate for work completed associated with each applicable task as identified in the consultant's proposal.

XI. <u>INSURANCE</u>

- A. The Consultant shall have Commercial General Liability insurance which affords coverage at least as broad as Insurance Services Office "occurrence" form CG 0001, with minimum limits of at least \$1,000,000 per occurrence, and if written with an aggregate, the aggregate shall be double the per occurrence limit. Defense costs shall be paid in addition to the limits.
- B. The Contractor shall have Automobile Insurance for owned and non-owned automotive equipment in the amount of not less than \$1,000,000.



- C. The selected firm shall furnish the City a certificate evidencing Workmen's Compensation Insurance with limits of no less than \$1,000,000 per accident and Comprehensive Professional Liability with limits no less than \$2.000,000 per occurrence. The City shall be named as the Additional Insured. Certificates of Insurance must be accompanied by the applicable endorsements for the specific insurance policy.
- D. A Certificate of Insurance or an appropriate binder shall bear an endorsement containing the following provisions:

"Solely as respect to services done by or on behalf of the named insured for the City of Stanton, it is agreed that the City of Stanton, the Successor Agency of the City of Stanton, its officers, employees, and agents are all included as additional insured under this general liability policy, and the coverage(s) provided shall be primary insurance and not contributing with any other insurance available to the City of Stanton, its officers and employees, and its agents, under any third-party liability policy."

E. It is the Consultant's responsibility to ensure that all sub-consultants comply with the following:

Each sub-consultant that encroaches within the City's right-of-way and affects (i.e., damages or impacts) City infrastructure must comply with the liability insurance requirements of the City. Examples of such sub-consultant work include soil sample borings, utility potholing, etc.

XII. TERMINATION FOR CONVENIENCE OF THE CITY

The City reserves the right to terminate the "Professional Services Agreement" for the "convenience of the City" at any time by giving ten (10) days written notice to the Consultant of such termination and specifying the effective date thereof. All finished or unfinished drawings, maps, documents, field notes, and other materials produced and procured by the Consultant under the said aforementioned Agreement is, at the option of the City, City property and shall be delivered to the City by the Consultant within ten (10) working days from the date of such termination. The City will reimburse the Consultant for all acceptable work performed as set forth in the executed Agreement.



XIII. INDEPENDENT CONTRACTOR

The Contractor's relationship to the City in the performance of the Contractor's services for this project is that of an independent contractor. The personnel performing said services shall at all times be under the Contractor's exclusive direction and control and shall be employees of the Contractor, not employees of the City. The Contractor shall pay all wages, salaries, and other amounts due its employees in connection with the performance of said work, and shall be responsible for all employee reports and obligations, including, but not limited to, Social Security, income tax withholding, unemployment compensation, and Workers' Compensation.

XIV. CONTRACT

The Contract includes the Professional Services Agreement, the City's RFP, the Contractor's Proposal, and Exhibits.

The Political Reform Act and the City's Conflict of Interest Code require that consultants be considered as potential filers of Statements of Economic Interest. Consultants, as defined by Section 18701, may be required to file an Economic Interest Statement (Form 700) within thirty (30) days of signing a Consultant Agreement with the City, on an annual basis thereafter while the contract remains in effect, and within thirty (30) days of completion of the contract.

XV. GENERAL CONDITIONS

Pre-contractual expenses are defined as expenses incurred by the Consultant in: (1) preparing the proposal; (2) submitting the proposal to the City; (3) presenting during the selection interview; (4) negotiating with the City on any matter related to the proposal; (5) any other expenses incurred by the Consultant prior to an executed Agreement, and (6) attendance of City Council for Award of Contract.

The City shall not, in any event, be liable for any pre-contractual expenses incurred by the Contractor. Services shall not commence until the Agreement for Professional Contractor Services has been executed by the City.

The Contractor is responsible for notifying Underground Service Alert and providing proper traffic control, at no additional expense to the City.



The City reserves the right to withdraw this RFP at any time without prior notice. Further, the City makes no representations that any Agreement will be awarded to any Consultant responding to this RFP. The City expressly reserves the right to postpone reviewing the proposals for its own convenience and to reject any and all proposals responding to this RFP without indicating any reasons for such rejection(s). Any contract awarded for these Contractor engagements will be made to the Contractor who, in the opinion of the City, is best qualified.

XVI. PREVAILING WAGES

Certain labor categories under this project are subject to prevailing wages as identified in the State of California Labor Code commencing in Section 1770 et. seq. These labor categories when employed for any work on or in the execution of a "Public Works" project require payment of prevailing wages including but not limited to, testing, potholing and non-design work.





STATEMENT OF QUALIFICATIONS FOR PROFESSIONAL SERVICES

ENGINEERING AND DESIGN SERVICES FOR HVAC REPLACEMENT OF THE COMMUNITY CENTER IMPROVEMENTS PROJECT

SUBMITTED BY:



Due Date: April 30, 2024 2024-599PBS



April 30, 2024

1. Letter of transmittal

Cesar Rangel
City of Stanton – City Hall
Public Works & Engineering Department (Public Counter)
7800 Katella Avenue
Stanton, CA 90680-3162

Project: Engineering and Design Services for HVAC Replacement of the Community Center Improvements Project

Dear Mr. Rangel,

PBS Engineers, Inc. (PBS), is pleased to submit our Statement of Qualifications for your consideration in response to your RFP-0222. PBS is pleased to provide professional services and enter a contract with the City of Inglewood under the terms and conditions described in the Sample Agreement of RFP-0222. PBS fully understands and complies to all elements of RFP-0222.

Contact Person: Norman Patel, Senior Mechanical Project Engineer | Senior Associate

<u>Contact</u>: (626) 650-0350 | nopatel@pbsengineers.com Corporate Address: 2100 E Route 66, Glendora, CA 91740

PBS is a full-service mechanical, electrical, plumbing and technology (MEP+T) consulting firm with an international staff of over one hundred (100), all committed to providing innovative solutions and personalized engineering services for your project, certified SBE/MBE/DBE.

PBS offers a variety of engineering services ranging from the design of mechanical, electrical, plumbing, fire protection and telecommunication systems to the study and implementation of cogeneration, thermal energy storage, and photovoltaic, air conditioning and daylighting systems. As the result of a rich and diverse history, the firm's capabilities include engineering for municipal, aviation, education, healthcare, commercial, residential and industrial facilities.

As a full-service engineering firm, we offer an experienced and cohesive team of engineers, designers, draftspersons, and CADD technicians. Our commitment is to provide quality engineering, and to ensure that projects are submitted on time and within the budget. Working in close coordination with the local and state agencies, PBS provides quality work and a well-organized and executed project that meets all codes and regulations.

We believe that the following PBS capabilities would be extremely beneficial to this project: We have extensive experience with government agencies, such as: City of Inglewood, City of Cerritos, City of Poway, City of Long Beach, City of Commerce, City of San Dimas, City of Simi Valley, City of Santa Ana, City of Torrance, City of Monterey Park, County of Los Angeles, Metropolitan Water District, Los Angeles Department of Building and Safety (LADBS), Department of Veteran's Affairs Department State Architect (DSA), Los Angeles World Airports (LAWA), Los Angeles County Metropolitan Transportation Authority, San Diego County Regional Airport Authority and Office of Statewide Health Planning and Development (OSHPD). Our dedication to "Providing Best Service" (PBS) at minimum cost.

Thank you for the opportunity to provide our Statement of Qualifications. We hope that the enclosed information answers all of your questions. Should you require any additional information, please call us at (626) 650-0350.

All information submitted within this proposal is true and correct.

This proposal shall remain valid for a period of no less than ninety (90) days from the date of submittal. PBS Engineers, Inc. acknowledges addendum #1, dated April 11, 2024.

Sincerely,

PBS Engineers, Inc.

Kunal Shah, PE, RCDD, LEED AP, President | CEO kshah@pbsengineers.com

2. Firm Structure and History

PBS Engineers, Inc. was incorporated in 2003 and is a full-service mechanical, electrical and plumbing (MEP) consulting firm with a staff of over one hundred (100) professionals, all committed to providing innovative solutions and personalized engineering services. We are headquartered in Glendora, with offices in Los Angeles, Orange County, San Diego, Santa Clara, and Houston, Texas. Work for the City of Stanton will be prepared in our headquarters in Glendora office.

The PBS Engineers mission is to "Provide WOW Through Service." PBS offers a wide range of engineering services that includes the design of mechanical, electrical, plumbing, fire protection and technology integration. The PBS Team brings a unique level of experience to every project with its industry ranging portfolio of work. PBS proven itself to be a leader in engineering field by being recognized as a Top Engineering Firm by ENR California, Consulting Specifying Engineer and Building Design and Construction. PBS differentiates itself through a commitment to quality design, constant communication and responsiveness to client needs. PBS Engineers is a certified Small Business Enterprise (SBE), Minority Business Enterprise (DBE) corporation.

When PBS was formed in 2003, the founding principals had already worked together for many years, and it was through their ongoing friendship and professional association that a shared vision emerged to provide excellence in MEP design. We are headquartered in Glendora, with offices in Los Angeles, San Diego and in Houston, Texas. Work for City of Stanton will be prepared out of our headquarters in Glendora.

PBS principals are involved in every project and every team includes an organization of Professional Engineers, LEED Accredited Professionals, and/or Registered Communication Distribution Designers, depending on the requirements of the project. PBS is known for the production of technically outstanding documents and for document coordination between all disciplines, with a strong Total Quality Management program and an Independent Quality Review Team.

PBS offers a variety of engineering services ranging from the design of mechanical, electrical, plumbing, fire protection and telecommunication systems to the study and implementation of cogeneration, thermal energy storage, and photovoltaic, air conditioning and daylighting systems. As the result of a rich and diverse history, the firm's capabilities include engineering for municipal, aviation, education, healthcare, commercial, residential and industrial facilities.

These relationships are in place to continue providing services with the utmost efficiency, therefore assuring budget constraints are met. Utilizing our team of highly qualified engineers that are supported by a Computer Aided Design and Drafting (CADD) system that utilizes BIM technology, along with our broad experience in field observation, our client is assured of a project that will be completed in a prompt and cost-effective manner. It is the experience acquired through a vast array of projects, together with an uncompromising dedication to serving clients through superior engineering, which sets us apart.

We have a magnitude of MEP engineering experience with various government agencies, such as, City of Poway, City of Simi Valley, Los Angeles Department of Building and Safety (LADBS), Los Angeles Bureau of Street Lighting (LABSL), Department State Architect (DSA), Los Angeles World Airports (LAWA), City of Long Beach, City of San Dimas, City of Torrance, City of Monterey Park, San Diego County Regional Airport Authority, John Wayne Airport, Los Angeles County Metropolitan Transportation Authority, and Office of Statewide Health Planning and Development (OSHPD).

The design process starts with coordination or interaction with the City of Stanton, knowing exactly their needs and what they have. Field investigation or field work will be scheduled with the City of Stanton to gather all pertaining information needed for the asneeded work.

Our goal is "Providing Best Services" (PBS) at maximum quality and minimal cost.



City of Cerritos, Cerritos, California Civic Center HVAC Replacement (2021-2023)

PBS Engineers provided mechanical, electrical and plumbing design and engineering services in the planning, design, and construction drawings for the replacement of Heating, Ventilation, and Air Conditioning (HVAC) at the City Hall and the Council Chamber. The City Hall has two levels with a basement and is an approximately 45,000-square-foot facility. The Council Chamber is approximately 8,000 square feet. The Scope of Work involved the design of a new HVAC system at the City Hall and Council Chamber to replace the current HVAC system in operation. The existing HVAC system was almost 50 years old and in need of replacement. The overall goal of the project was to install an HVAC system that is responsive to the year-round temperature fluctuations in the City buildings.



City of Poway, Poway, California
City Hall - Heating, Ventilation and Air Conditioning Equipment Assessment and System
Function Analysis (2019-2020)

PBS Engineers has prepared an extensive report to include Heating Ventilation and Air Conditioning (HVAC) Assessment and Functional analysis for City Hall Building (CHB) and the City Council Building (CCB), located at 13325 Civic Center Dr, Poway, California. Report comprises of detailed analysis of the existing HVAC Systems, Building Automation System, the Central Plant Equipment such as 250 Ton air cooled chiller, chilled water pumps, 2 million Btu boiler, heating hot water pumps, Air Handling Units, VAV terminal units, Fan Coil Units, Condensers, and Exhaust Fans. This report was prepared and based on the extensive survey, visual filed observations, Test and Air Balance report review, available As-built drawings study, maintenance interviews and input from users and concluded the report with fully executed summary comprising all findings and recommendation for all HVAC equipment.



Metropolitan Water District Headquarters Building – Los Angeles, California Comprehensive Assessment and Report for Chiller Water Plant Efficiency and Recommendations for Improvements (2017-2018)

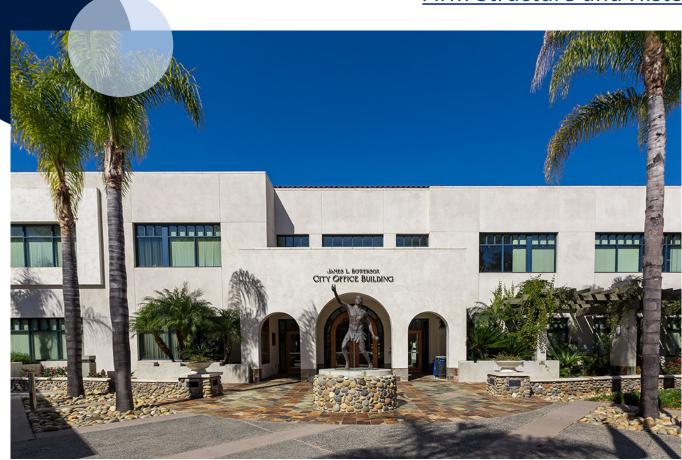
The Scope of Work for this project involved performing assessment of the Three (3) existing Chillers associated Pumps and Cooling Towers performance serving the Metropolitan Water District Headquarters Building. Prepare report to provide recommendations for improvement to the overall efficiency of the existing Chilled Water Central Plant and provide alternate options identifying their advantages and disadvantages.



Northrop Grumman, Manhattan Beach, CA Building O3 Interior Upgrade (2020-2022)

PBS provided MEP/FA/FP engineering services for replacement of existing HVAC originally installed in 1981 with new energy efficient HVAC system without major structural upgrade for two story building approximately 50,000 sq. ft area. Project includes replacement of large existing custom air handling units, Pneumatic to digital controls upgrade, restroom upgrade, large presentation room 230+ occupant capacity with STC 50 sound rating, brake rooms, huddle rooms, server room, computer labs. The challenge was to design the entire project from inception to completion withing 3 months including Northrop Grumman engineering facility review. PBS was able to deliver the project on time and able to get approval from AHJ with minor plan check correction. The highlight of the project is Secured HVAC system with white noise masking, Power filters for security requirements, SCIF (Sensitive Compartmented Information Facility) wall construction, stringent noise attenuation criteria for conference room and individual offices.





City of Poway, Poway, California Poway City Hall, Heating, Ventilation and Air Conditioning Controls Replacement Project (2021-2022)

PBS oversaw the City Hall Poway Building Management System (BMS) controls upgrade from inception to the completion. City Hall of Poway replaced existing LONWORKS controls to BACnet compatible control. PBS reviewed controls drawings provided by selected controls contractor, organize bi weekly construction meetings, overseen BMS installation and integration with city web control server, ensured proper training has been delivered to the city maintenance crew and ensure the smooth implementation of the brand new BACnet compatible controls for all HVAC equipment such as Chiller, Boiler, Pumps, Air handling units, fan coil units and exhaust fans.

Firm Structure and History



United States Postal Service, Industry Processing and Distribution Facility Center, City of Industry, CA Mechanical Controls System Comprehensive Assessment and Report (2018-2019)

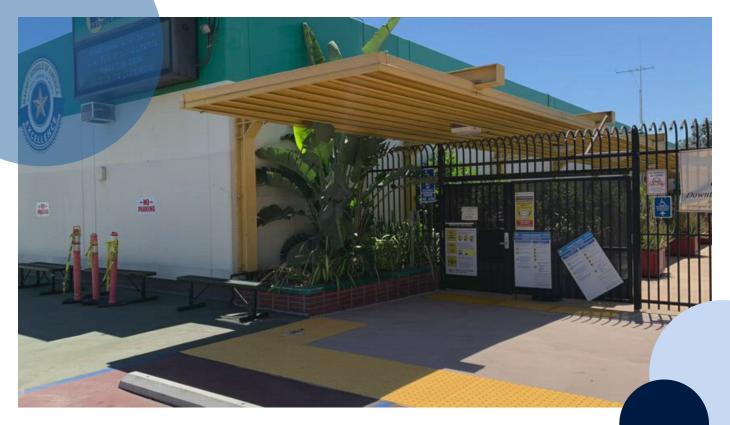
PBS provided Mechanical Engineering Services assessment and report for the United States Postal Service, Industry Processing and Distribution Facility Center located at City of Industry, California, for the existing Building Automation System (BMS) Upgrade House Control Review Heating, Ventilation and Air Conditioning, Energy Management and Building Management Systems House Controls that are currently not functioning in conformance to owner standards.

Firm Structure and History



Los Angeles Unified School District, Phineas Banning Senior High School, Wilmington, CA Remove and Replace Deteriorated Heating, Ventilation, and Air Conditioning Equipment for Multipurpose Building "C" (007DOT); Shop Building No. 1 (006COG); Shop Building No. 3 (010COT), Replace Cooling Tower and Chiller at Shop Building No. 3 (010COT) (2016-2020)

PBS Engineers surveyed the existing building and site and assessed the facility's existing Mechanical, Electrical, and Plumbing systems. Assessment was included to 700-ton Central Plant Chiller, Cooling Tower, pumps etc. A written report was provided on the adequacy/inadequacy of each system and provided recommendation for replacement/refurbishment of the Central Plant components. The report also included recommendations on what would be needed to bring the current building's current systems into compliance with current code standards, as well as, what would be required to accommodate the District's needs. A conceptual cost estimate for the Mechanical, Electrical and Plumbing systems, including the site work was also provided.



Los Angeles Unified School District, Downtown Business Magnet High School, Los Angeles, California Replace HVAC System (2012-2019)

PBS Engineers provided an HVAC replacement for the Los Angeles Unified School District, Downtown Business Magnet High School. The project is a two-story classroom and administration building, built in 1960. The total project size was approximately 108,000 square feet. A/E Services included: assessment report of mechanical equipment and systems, basis of design and recommendation, selected equipment to comply with Title-24, high energy efficient, indoor air quality requirement, economizer as required per code, energy rebate for efficient units and demand controls from local utility company to benefit to the District. Prepared construction documents, specification for Division of State Architect (DSA) submittal and approval process included DSA-1, DSA-3 and DSA-108 required applicable forms. Bidding process phasing and construction administration as required to complete successful project. Scope of work includes to replace 140 Ton chiller, boiler, pumps and air handling units.

Firm Structure and History



Los Angeles Unified School District, Apperson Elementary School, Sunland, California Replace Heating, Ventilation, and Air Conditioning Systems for (18) Classroom Buildings; (1) Administration Building; and (1) Multipurpose Building (2015 to 2019)

PBS provided Mechanical, Electrical, Plumbing, Structural and Architectural/Engineering Services to replace the deteriorated air-conditioning equipment serving the Classroom Buildings and provided a make-up air system and fire suppression system (Ansul 102) for the existing Type I Kitchen Hood, complete maintenance service for roof top air conditioning units for Building 1 (Administration), Building 10 (Multipurpose) and Building AA-2445 (Classroom Building). Scope of work includes package units, fan coil units for IT server rooms and Bard units.

Organization Chart of Personnel and Percentage of Commitment



Tariq Hassan, P.E.
Senior Mechanical Engineer
Percent Available: 60%

Norman Patel
Senior Mechanical Project Engineer
Percent Available: 70%

Mechanical:

Khushboo Patel, P.E., PMP, CBCP, LEED AP | Senior Mechanical Engineer | Percent Available: 65%

Himanshu Patel, EIT, LEED AP | Senior Mechanical Design Engineer | Percent Available: 65%

Plumbing:

Ramon Camacho | Senior Plumbing & Fire Protection

Design Engineer | Percent Available: 65%

Electrical:

Kunal Shah | President, CEO | Percent Available: 60%

Louis Perez | Senior Electrical Project Engineer | Percent Available: 65%

Costa and Associates
Structural Engineer
Percent Available: 70%

R. Alberto Arango
Architect
Percent Available: 70%

Steve Hseih
Cost Estimator
Percent Available: 70%

Company Personnel



Tarig's personal business motto is,

"I will strive to exceed our Client's expectations as well as the goals of the project."

Tariq Hassan, PE Associate Principal

operation.

Principal in Charge | Project Mechanical Engineer Contact Number: 626-650-0350

Tarig has designed mechanical systems for numerous new and existing facilities such as commercial, educational, healthcare, industrial and military facilities, including entertainment centers, amusement parks, computer and data rooms, civil centers, institutional facilities and cogeneration plants. Tariq has worked as a designer, HVAC engineer, project engineer and project manager during his engineering experience, allowing him to fully understand the mechanical design process. His primary duties include the design of HVAC, preparation of specifications and cost estimates, performance of mechanical peer review, attendance at project meetings and project coordination. Tariq is well-versed in the application of energy conservation measures to help design ultra-efficient facilities. He is on the cutting edge of implementing mechanical design strategies to promote Net-Zero

25 Years of Experience

Joined PBS Engineers, Inc. in 2007

Background

- B.S., Mechanical Engineering, California State Polytechnic University Pomona, California
- Registered Mechanical Engineer in California #33827

Selected Project Experience

- City of Santa Ana, Santa Ana, California New Bike Station
- City of Cerritos, Cerritos, California
 Civic Center HVAC Replacement
- City of Commerce, Commerce, California
 New Transit and Public Works Operations and Maintenance Facility
- City of Poway, City Hall Heating, Ventilation and Air Conditioning Equipment Assessment and System Function Analysis
- City of Poway, Poway, California
 Poway City Hall, Heating, Ventilation and Air Conditioning Replacement
 Project
- City of Simi Valley, California, City Hall HVAC Replacement
- USPS, Industry Processing & Distribution Facility Center, City of Industry,
 CA Mechanical Controls System Comprehensive Assessment and Report
- Northrop Grumman, Manhattan Beach, CA Building O3 Interior HVAC Upgrade





Norman Patel
Associate Principal

Senior Mechanical Project Engineer | Senior Associate

Contact Number: 626-650-0350

With over forty years of experience, Norman Patel has engineered and implemented over 10 million square feet of innovative mechanical systems design, including: heat transfer and transport, cooling/heating load calculations, complex psychrometric studies, energy savings analysis, systems selection and comparative solutions design. In addition, Norman is dedicated to incorporating sustainable and renewable energy concepts in all of his projects. To accomplish the results, Norman is skilled in all facets of mechanical engineering design, feasibility studies, construction documentation, equipment specification construction administration. and review. and focuses on solutions to achieve client satisfaction through elegantly simple, easily maintainable energy efficient systems, while not losing focus on budgetary realities and interdisciplinary coordination. Norman's personal business motto is,

"Providing the best service to my client."

40+ Years of Experience

Joined PBS Engineers, Inc. in 2018

Background

B.S., Mechanical Engineering, California State Polytechnic University

Selected Project Experience

- City of Cerritos, Cerritos, California
 Civic Center HVAC Replacement
- United States Postal Service, Los Angeles Processing and Distribution Facility Center, Los Angeles, CA Heating Ventilation and Air Conditioning (HVAC) Assessment and Report
- LAUSD, Downtown Business Magnet High School, Los Angeles, California Replace HVAC Systems
- LAUSD, Apperson Elementary School, Sunland, California Replace Heating, Ventilation, and Air Conditioning Systems
- Los Angeles Unified School District, Phineas Banning Senior High School, Wilmington, CA
 Remove and Replace Deteriorated Heating, Ventilation, and Air Conditioning Equipment
- Fontana Unified School District, Live Oak Elementary School, Fontana,
 CA HVAC Assessment Report and Replacement
- San Dimas Unified School District, San Dimas, California
 Bonita High School and San Dimas High School Gymnasium HVAC
 Upgrades



Company Personnel

Kunal's personal business motto is,

"I make your life easier by providing you what you need when you need it."

Kunal Shah, PE, RCDD, LEED AP President | CEO

Project Electrical Engineer

Contact Number: 626-650-0350

As a Principal Electrical Engineer, Kunal has built a portfolio of award-winning work across multiple industries. Kunal can controlall phases of project management from design strategy through implementation including design, budgeting, design development, construction documentation coordination and construction administration. His attention to detail and follow through has won him a loyal client following. As the Principal Electrical Engineer, Kunal is intimately involved in all design and project management responsibilities. He is fueled by his desire to "WOW" his clients through his commitment to service. In addition, Kunal's role is to cultivate a positive team environment and to nurture and motivate employees to reach their potential while maintaining client satisfaction for all projects within the firm. Kunal's philosophy is to be available to his clients whenever he is needed.

25 Years of Experience

Joined PBS Engineers, Inc. in 2003

Background

- B.S., Electrical Engineering, University of California, Irvine, California
- Professional Electrical Engineer #E-17249 in California
- Registered Communication Distribution Designer (RCDD) # 07039
- LEED AP

- City of Cerritos, Cerritos, California
 Civic Center HVAC Replacement
- City of San Dimas, California Electrical On-Call Services
- City of Santa Ana, Santa Ana, California New Bike Station
- City of Poway, Poway, California
 City Hall Heating, Ventilation and Air Conditioning Equipment
 Assessment and System Function Analysis
- Metropolitan Water District Headquarters Building Los Angeles, California Comprehensive Assessment and Report for Chiller Water Plant Efficiency and Recommendations for Improvements
- City of Commerce, Commerce, California
 New Transit and Public Works Operations and Maintenance Facility
- East Whittier City School District, Oceanview Elementary School, Whittier, CA
 Campus Wide Fire Alarm and HVAC Upgrade





Louis Perez Associate Principal

Senior Electrical Project Engineer

Contact Number: 626-650-0350

diverse professional with over thirty-eight years of experience, Lou Perez has designed full electrical systems municipal. aviation. elementary schools through graduate universities, fire stations, churches, hospitals and commercial facilities. His expertise also includes feasibility and utility master planning studies, as well as systems for communication and signaling, fire alarm and detection, interior and exterior lighting design and low voltage power distribution. A superb project manager, Lou is responsible for the engineering and construction administration on many key projects. Lou has extensive experience in feasibility and master utility studies, electrical design and engineering, as well as construction coordination and administration. He is fluent in working with governing agencies, including the Division of the State Architect, which provides design and construction oversight for K-12 schools, community colleges, and various other state-owned and leased facilities. Lou's personal business motto is,

"Helping you to see what is possible."

35+ Years of Experience

Joined PBS Engineers, Inc. in 2004

Background

• Electrical Engineering Certification, Mt. San Antonio College, Walnut

- City of San Dimas, California Electrical On-Call Services
- City of Santa Ana, Santa Ana, California New Bike Station
- South Oxnard Branch Library, Oxnard, California
 Heating, Ventilation and Air Conditioning (HVAC) and Control: Upgrade
- East Whittier City School District, Oceanview Elementary School, Whittier, CA Campus Wide Fire Alarm and HVAC Upgrade
- Los Angeles County Fire Department, Station No. 192, La Habra, CA
 Upgrade Americans with Disabilities Act Restroom/Shower Area
- San Dimas Unified School District, San Dimas, California
 Bonita High School and San Dimas High School Gymnasium HVAC
 Upgrades
- Torrance Municipal Airport, Torrance California
 Design Services for Emergency Operations Center (EOC)
- City of Compton Compton Library, Compton, California Americans With Disabilities Act (ADA) Restroom Upgrade
- City of Riverside, Riverside, California
 Public Works Department Water Quality Control Plant Renovation

Company Personnel



Khushboo's personal business motto is,

"With my dedication and hard work I will go above and beyond our goals".

Khushboo Patel, PE, PMP, CBCP, LEED AP 13 Years of Experience

Senior Associate

Senior Mechanical Engineer

Contact Number: 626-650-0350

Khushboo Patel is an HVAC mechanical engineer and has experience in both residential and commercial projects. • Registered Mechanical Engineer in California #M38521 She has worked on several projects including municipal, • Certified Building Commissioning Professional (CBCP) aviation, healthcare facilities, educational institutes, fire • LEED AP stations, religious facilities and small-scale commercials. Her responsibilities include field assessments, designing HVAC systems, providing specifications and cost estimates, reviewing submittals and shop drawings, responding to Request for Information (RFIs) and plan check comments. She has worked as a designer, HVAC engineer, project engineer and project manager during his engineering experience. Her primary duties include the design of • HVAC, preparation of specifications and cost estimates, performance of mechanical peer review, attendance at project meetings and project coordination. Additional • City of Riverside, Riverside, California responsibilities for Khushboo consist of initial design development, field investigations, and heating and cooling load calculations, preparation of California

Administrative Code Title 24 energy compliance documents.

Joined PBS Engineers, Inc. in 2011

Background

- M.S. Mechanical Engineering, Faculty of Technology Baroda,



- City of Poway, Poway, California City Hall – Heating, Ventilation and Air Conditioning Equipment Assessment and System Function Analysis
- City of Poway, Poway, California Poway City Hall, Heating, Ventilation and Air Conditioning Replacement Project
- City of Cerritos, Cerritos, California Civic Center HVAC Replacement
- City of Commerce, Commerce, California New Transit and Public Works Operations and Maintenance Facility
- Northrop Grumman, Manhattan Beach, CA Building O3 Interior HVAC Upgrade
- Public Works Department Water Quality Control Plant Renovation





Himanshu's personal business motto is,

"We see our customers as invited guests to a party and we are the hosts. It's our job every day to make every important aspect of the customer experience a little bit better."

Himanshu Patel, EIT, LEED AP Senior Mechanical Design Engineer | Senior Associate Mechanical Engineer

Contact Number: 626-650-0350

Himanshu Patel is HVAC mechanical engineer and has experience in both residential and commercial projects. In addition to this, he has experience in the field of Residential Sound Insulation (RSI) and has worked for various sound insulation programs such as San Diego Quieter Home • Program. His responsibilities include field assessments, designing HVAC systems, providing specifications and • cost estimates, reviewing submittals and shop drawings, responding to Request for Information (RFIs) and plan check comments.

Himanshu provides a professional experience in terms of his knowledge for different kinds of mechanical equipment • present and their application for design purpose for sound insulation projects. He has knowledge of California Mechanical Code, California Building Code and California • Plumbing Code. He also has experience in producing Title 24 calculations for residential and commercial projects.

His experience includes various aspects of construction activities.

9 Years of Experience

Joined PBS Engineers, Inc. in 2016

Background

- M.S. Mechanical Engineering, Lamar University, Beaumont, Texas
- B.S. Mechanical Engineering, Gujarat Technological University, Gujarat, India

- City of Cerritos, Cerritos, California
 Civic Center HVAC Replacement
- City of Poway, Poway, California
 City Hall Heating, Ventilation and Air Conditioning Equipment Assessment and System Function Analysis
- City of Santa Ana, Santa Ana, California New Bike Station
- Metropolitan Water District Headquarters Building, Los Angeles,
 California, Comprehensive Assessment and Report for Chiller Water Plant
 Efficiency and Recommendations for Improvements
- City of Riverside, Riverside, California

 Public Works Department Water Quality Control Plant Renovation
- Northrop Grumman, Manhattan Beach, CA Building O3 Interior HVAC Upgrade
- LAUSD, Apperson Elementary School, Sunland, California Replace Heating, Ventilation, and Air Conditioning Systems
- East Whittier City School District, Oceanview Elementary School, Whittier, CA Campus Wide Fire Alarm and HVAC Upgrade



Company Personnel

Ramon's personal business motto is,
"Striving to be your project's MVP."

Ramon Camacho

Senior Associate

Project Senior Plumbing & Fire Protection Engineer

Contact Number: 626-650-0350

Ramon Camacho is responsible for plumbing and fire protection systems design. Ramon has over twenty-five years of design and construction experience, and over fourteen years' experience in fire protection design. He is responsible for plumbing and fire protection systems design and has designed a comprehensive range of plumbing systems such as: sanitary waste and vent, domestic cold water, natural gas, storm water and compressed air. He has also designed a comprehensive range of fire protection systems such as: hydraulic calculations, fire sprinkler layout, pre-action, deluge and FM200 design. Ramon's additional responsibilities include the research and application of building, plumbing and fire protection codes to develop design criteria, scope and construction documentation. He also has experience in preliminary design, construction documentation, calculations, equipment, document review and punch list observations.

25 Years of Experience

Joined PBS Engineers, Inc. in 2009

Background

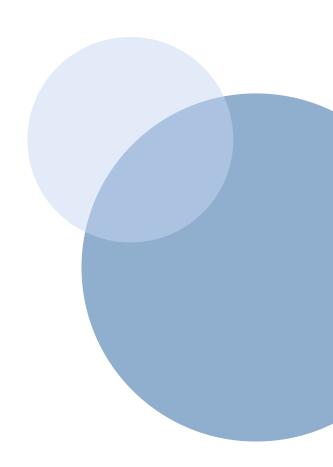
- UCLA Extension, Plumbing Design Systems Certification
- Oklahoma State University, Correspondence Education
- Fire Protection and Safety Engineering Technology Program

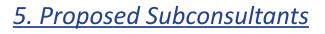
- City of Cerritos, Cerritos, California Civic Center HVAC Replacement
- City of Santa Ana, Santa Ana, California
 New Bike Station
- City of Riverside, Riverside, California
 Public Works Department Water Quality Control Plant Renovation
- City of Simi Valley, California, City Hall HVAC Replacement
- USPS, Industry Processing & Distribution Facility Center, City of Industry, CA Mechanical Controls System Comprehensive Assessment and Report
- United States Postal Service, Los Angeles Processing and Distribution
 Facility Center, Los Angeles, CA
 Heating Ventilation and Air Conditioning (HVAC) Assessment and Report
- Northrop Grumman, Manhattan Beach, CA Building O3 Interior HVAC Upgrade

One of the most important considerations to improvements to public facilities would be to keep them in operation during the duration of construction. The project schedule should include a construction phasing plan to ensure constructibility while fulfilling the needs of staff and the public.

There is an intimate relationship between schedule, cost and value engineering; a cost control through the preparation, evaluation and consideration of a minimum three (3) conceptual schemes should be proposed for school improvements, once the most cost effective scheme is selected the detail design should start. The methodology for value engineering shall be the one that starts with the design of the project and continues with a cost consideration of each inclusion of equipment and device to the project. The value engineering shall be reviewed at each milestone of the project design and verify that the project design is within the budget.

Every project with the objective of optimizing energy efficiency, environmental responsiveness, and the use of renewable energy sources through MEP engineering wherever possible. Depending on the project and owner goals, either mandatory codes or energy efficient guidelines act as a baseline to begin the design process, or the principles of these guidelines are incorporated with engineering innovation to develop new solutions to specific planning criteria. PBS commitment to improve the energy efficiency, environmental responsiveness, and use of renewable energy sources in new or existing buildings. PBS to also implement and consider post COVID MEP strategies to immunize the risk of spread of air born viruses and bacteria.





Costa & Associates, Structural Engineers (MBE/SBE)



Orlando Costa, SE

Principal

Contact Number: (626) 960-1811

Orlando Costa founded the firm in 1981 after a highly successful career with major firms in the Los Angeles area. Mr. Costa holds a • degree in Engineering from California State University, Northridge Selected Project Experiences (1974) and is licensed as a Structural Engineer in California a (SE 2285), During his 42 years as principal of the firm, he has led the design work on many and widely varied projects including office buildings, schools, institutional and industrial projects, hotels, maintenance facilities, etc.

40+ Years of Experience

Background

- BSCE, California State University, Northridge
- California Structural Engineer, SE2285
- California Civil Engineer, CE 26923

- North Hollywood High School Modernization, LAUSD
- Marshall High School Gymnasium Building, PUSD
- **ACES Charter School**
- Valley High School #5, LAUSD
- Y.O.U. Charter High School
- South Region #5, LAUSD
- Monsenor Oscar Romero Charter School
- Driffill Elementary School, Oxnard USD
- Silver Lake Library, County of Los Angeles
- El Monte Aquatic Center, City of El Monte

5. Proposed Subconsultants

R. Alberto Arango, Architect

R. Alberto Arango

Architectural Consultant (Self-Employed Contact Number: (818) 400-8909

Alberto Arango works as an Architectural consultant for PBS engineers. He has contributed to various projects, such as LAUSD, Sweetwater Union School District of San Diego California, Barstow Community College, Garden Grove Gas Station and Cudahay Gas Station. He has contributed design and preparations for numerous projects, including the Boys Gymnasium for Westchester High School and the Mathew Redifer Residence Renovation in Palmdale, California.

30+ Years of Experience

Background

 Bachelor Degree in Architecture, Assoc. AIA, Universidad Piloto de Colombia, Bogota. Colombia

- Mathew Redifer Residence
- Boys Gymnasium at Westchester High School
- Renovation Sweetwater Union School District
- Barstow Community College
- Garden Grove Gas Station
- Cudahay Gas Station

5. Proposed Subconsultants

Yuang Tai, Inc.

Yuang Steve Hseih

Principal Construction Cost Consultant

Contact Number: (626) 446-2388

• Steve Hsieh possesses more than thirty-five years of construction industry related experience in the field of professional Cost

Estimating. He assumes bottom line responsibility for the projects

he is involved with and applies his expertise on a daily basis in

regard to preparing budget type estimates as well as competitive

bid estimates. His experience and expertise includes, but is not

limited to the following:

- Estimate over 600 major projects totaling over 5 Billion in construction value
- Estimate over 80 complex projects per year as Principal Cost
 Consultant
- Campus Cost Consultant for San Jose State University
- Contract Cost Consultant to Los Angeles Community College
 District (LACCD) for the District's nine campuses
- Developed an Objective Cost Evaluation Technique to monitor
 Electrical/Mechanical subcontractors in the field
- The \$24.5 Million LACCD Auditorium Modernization Project

30+ Years of Experience

Background

- M.S. Civil Engineering & Construction Management, Oklahoma State University
- B.S. Architecture, National Cheng-Kung University, Taiwan

- San Jose State University
- Los Angeles Unified School District (LAUSD) Existing Facilities
- Los Angeles Community College District (LACCD) For nine campuses
- Department of Energy, U.S. Air Force, Navy, Army and Corps of Engineers
- Nationwide Developers, Institutional Entities and Major Corporations

City of Cerritos

Contact Person: Amandeep Mann, (562) 916-1219, amann@ceritos.us

Responsibility/relationship to project: Associate Civil Engineer

Address: 18125 Bloomfield Avenue, Cerritos, CA 90703-3130

Description of services: PBS Engineers provided mechanical, electrical, and plumbing design and engineering services in the planning, design, and construction drawings for the replacement of Heating, Ventilation, and Air Conditioning (HVAC) at the City Hall and the Council Chamber. The City Hall has two levels with a basement and is an approximately 45,000-square-foot facility. The Council Chamber is approximately 8,000 square feet. The Scope of Work involved the design of a new HVAC system at the City Hall and Council Chamber to replace the current HVAC system in operation. The existing HVAC system was almost 50 years old and in need of replacement. The overall goal of the project was to install an HVAC system that is responsive to the year-round temperature fluctuations in the City buildings.

Key Personnel: Tariq Hassan, Norman Patel, Khushboo Patel, Kunal Shah, Ramon Camacho

City of Poway

Contact Person: Jeff Beers, (858) 668-4624, jbeers@poway.org

Responsibility/relationship to project: Special Projects Engineer

Address: 13325 Civic Center Dr, Poway, CA 92064

Description of services: PBS Engineers has prepared an extensive report to include Heating Ventilation and Air Conditioning (HVAC) Assessment and Functional analysis for City Hall Building (CHB) and the City Council Building (CCB), located at 13325 Civic Center Dr, Poway, California. Report comprises of detailed analysis of the existing HVAC Systems, Building Automation System, the Central Plant Equipment such as 250 Ton air cooled chiller, chilled water pumps, 2 million Btu boiler, heating hot water pumps, Air Handling Units, VAV terminal units, Fan Coil Units, Condensers, and Exhaust Fans. This report was prepared and based on the extensive survey, visual filed observations, Test and Air Balance report review, available As-built drawings study, maintenance interviews and input from users and concluded the report with fully executed summary comprising all findings and recommendation for all HVAC equipment.

Key Personnel: Tariq Hassan, Khushboo Patel

City of Commerce

Contact Person: Amy Chang, AIA, LEED AP, (Stantec), (213) 955-3506, amy.chang@stantec.com

Responsibility/relationship to project: Principal

Address: 801 S Figueroa St Unit 300, Los Angeles, CA 90017

Description of services: PBS provided Mechanical, Electrical, Plumbing, Fire Alarm, Fire Protection, and Low Voltage Engineering Services for the new transit and public works operations and maintenance facility, including the transition to zero-emission buses (ZEBs) in alignment with California's clean energy mandates. PBS has provided electrical design services for over 100 electrical vehicle charging points to support the current and future bus fleet and commercial vehicles to serve the city's transit system's needs as well as to comply with Cal Green requirements. The new facility is located on approximately 6.5 acres at a former power generation plant, which was repurposed and rebuilt with resiliency in mind. The project consists of a 20,000-square-foot administration and operations building, a 15,000-square-foot maintenance facility, site improvements for staff/ visitor parking, and on-site fueling and washing.

Key Personnel: Tariq Hassan, Khushboo Patel, Kunal Shah, Ramon Camacho

City of Santa Ana

Contact Person: Nicholas Acevedo (Gensler), (949) 260-8597, Nick Acevedo@gensler.com

Responsibility/relationship to project: Senior Associate

Address: 4675 MacArthur Court Suite 100. Newport Beach, CA 92660

Description of services: PBS provided Mechanical, Electrical and Plumbing engineering design services for this new bicycle center including indoor bicycle storage, lockers, restrooms with showers, a storage room and a community bicycle workshop. This project covered roughly 4,000 square feet.

Key Personnel: Tariq Hassan, Himanshu Patel, Kunal Shah, Ramon Camacho

Metropolitan Water District

Contact Person: Kristof Schnaitmann, S.E. (ABS Consulting), (714) 734-2521, kschnaitmann@absconsulting.com

Responsibility/relationship to project: Principal Engineer

Address: 420 Exchange, Suite 200, Irvine, California 92602

Description of services: The Scope of Work for this project involved performing assessment of the Three (3) existing Chillers associated Pumps and Cooling Towers performance serving the Metropolitan Water District Headquarters Building. Prepare report to provide recommendations for improvement to the overall efficiency of the existing Chilled Water Central Plant and provide alternate options identifying their advantages and disadvantages.

Key Personnel: Tariq Hassan, Kunal Shah, Himanshu Patel, Ramon Camacho

Northrop Grumman

Contact Person: Bertha A. Olmos, AIA, NCARB, (Studio+), (323) 254-9200, berthao@wearestudioplus.com

Responsibility/relationship to project: PM and Lead Architect

Address: 4605 Lankershim Blvd. Suite 300, North Hollywood, CA 91602

Description of services: PBS provided MEP/FA/FP engineering services for replacement of existing HVAC originally installed in 1981 with new energy efficient HVAC system without major structural upgrade for two story building approximately 50,000 sq. ft area. Project includes replacement of large existing custom air handling units, Pneumatic to digital controls upgrade, restroom upgrade, large presentation room 230+ occupant capacity with STC 50 sound rating, brake rooms, huddle rooms, server room, computer labs. The challenge was to design the entire project from inception to completion withing 3 months including Northrop Grumman engineering facility review. PBS was able to deliver the project on time and able to get approval from AHJ with minor plan check correction. The highlight of the project is Secured HVAC system with white noise masking, Power filters for security requirements, SCIF (Sensitive Compartmented Information Facility) wall construction, stringent noise attenuation criteria for conference room and individual offices.

Key Personnel: Tariq Hassan, Kunal Shah, Ramon Camacho



Fee Proposal

SUBMITTAL SCHEDULE				
Item	Description	Weeks		
1	Site Investigation, As-Built Drawings Review and Schematic Assessment	2		
	Report / Design			
	Electronic Files			
2	City Review and Comments	1		
3	Design Development 30% Submittal	4		
	Electronic Files			
	Basis of Design			
	30% CD Drawings			
	Outline Specification TOC			
4	City Review and Comments	2		
5	Construction Design Phase 60% Submittal	3		
	Electronic Files			
	Specifications			
	50% CD Drawings			
6	City Review and Comments	2		
7	Final Plans and Specifications 90% Submittal	3		
	Electronic Files			
	Pre-Final Specifications (stamped and signed)			
8	City Review and Comments	1		
9	Plan Check Final Submittal (Stamped and Signed)	6		
	100% Drawings			
	100% Specifications			
	100% Cut Sheets			
	100% Calculations			
	Electronic Files			
10	Bid Document	2		
	TOTAL WEEKS	26		

COMPENSATION BY PERCENTAGE & A/E FEE							
No.	Phase	Percentage of Fee	Total				
1	Site Investigation & Assessment	10%	\$7,400.00				
2	Design Development	25%	\$18,500.00				
3	60% Construction Documents	20%	\$14,800.00				
4	100% Construction Documents	20%	\$14,800.00				
5	Plan Check Review and Approval	5%	\$3,700.00				
6	Bidding and Award	2%	\$1,480.00				
7	Construction Administration	15%	\$11,100.00				
8	Project Closeout – Record Set	3%	\$2,220.00				
	TOTAL PERCENTAGE OF FEE & A/E FEE 100% \$74,000.00						

Notes:

- 1. Plan Check Fee paid by the City.
- 2. Additional service per City's request.
- 3. 10% mark-up on consultants' additional service.
- 4. See attached Schedule of Charges.
- 5. City shall provide as-built record drawings.
- 6. Duct leakage test is included with optional fee refer to Table-B.
- 7. Duct cleaning specification and scope of work direction is included under the main design scope.
- 8. Prereading air flow test is included with optional fee refer to Table-B.



TABLE - A					
*Optional - Contingency Fees \$21,000.00					
1. Existing roof structure and framing modification for new units' weight with roof curb and economizers.					
2. Existing units are Trane and Daikin has different supply and return duct arrangement versus Carrier units already					

purchased by the City. This may require roof opening and main supply and return duct reconfiguration.

TABLE - B						
*Optional - Fees (AABC Air Balancing Company)	\$30,000.00					
Markup 10% (PBS Engineers)	\$3,000.00					
TOTAL FEE \$33,000.00						
1. Perform air flow test for pre-air readings at each supply and return air grilles.						
2. Perform duct leakage test for all rooftop HVAC units and existing air distribution devices.						
3. Perform duct travers air flow readings on main ducts for all rooftop units.						
4. Above listed work will be performed by AABC test and balance company during second shift (after hours schedule).						



2024 **SCHEDULE OF CHARGES**

The fee for our services will be based on the charges listed below. All fee quotations are applicable for a period of ninety (90) days from the date of the proposal to which this schedule is attached. We reserve the right to modify these rates upon thirty (30) days advance notice.

PERSONNEL/HOURLY RATE

Principal Engineer	\$250	Senior CADD/Revit Operator	\$155
Project Manager	<u>\$230</u>	CADD/Revit Operator/Drafting	<u></u> \$135
Project/Senior Engineer	\$195	Senior Field Representative	<u>\$155</u>
Senior Designer	<u>\$</u> 175	Field Representative	<u></u> \$145
Designer	<u></u> \$165	Word Processor/Clerical	\$110

These rates apply to regular time and travel time in the continental United States. A maximum travel time of eight (8) hours will be charged on any day. If required in the interest of the project, Overtime will be charged at the above rates for professional personnel and at 1.5 times the above rates for other personnel. Overtime will apply to the time in excess of eight (8) hours per weekday and all-time on Saturdays, Sundays, and holidays. In the event of adverse weather conditions or other factors beyond our control, a standby charge of four (4) hours per weekday will be made for field personnel. Reimbursable expenses are in addition to personnel rates. Reimbursable expenses will be billed at cost except as noted below.

MISCELLANEOUS CHARGES

Passenger Car	\$0.85/mile
Plotting	\$6.60/sheet
Photocopy	\$0.12/page

INSURANCE

PBS Engineers maintains Professional Liability and General Liability Insurance for bodily injury and property damage with a limit of \$10,000,000 per occurrence for its own account and will furnish certificates of such insurance upon request. In the event the Client desires additional coverage, we will obtain additional insurance at the Client's expense upon the Client's written request.

8. Evidence of Compliance with City Insurance Requirements

A	CORD® C	ER	TIF	ICATE OF LIABI	LITY INSI	JRANC	E		E (MM/DD/YYYY)					
С В	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED													
IN If	EPRESENTATIVE OR PRODUCER, ANI IPORTANT: If the certificate holder is a SUBROGATION IS WAIVED, subject to also certificate does not confer rights to	an Al	DITI	ONAL INSURED, the policy(is and conditions of the policy	, certain policies									
PRO	DUCER			CO	ONTACT Tina Cow	ie								
Cor	nerstone Specialty Insurance Services, Inc.			PH		31-7700	FAX (A/C	, No): (714)	731-7750					
142	52 Culver Drive, A299			F.A		nerstonespecia		, 110).						
						SURER(S) AFFOR	RDING COVERAGE		NAIC#					
Irvir	ne			CA 92604 INS		rance Compan			13056					
INSU	RED			INS	SURER B: Arch Ins	urance Compa	iny		11150					
	PBS ENGINEERS, INC.					on Insurance C	ompany		23620					
	2100 E. Route 66, Suite 210				SURER D :									
					SURER E :									
	Glendora			04 04740	SURER F :									
CO	VERAGES CER	TIFIC	ATE	NUMBER: 23/24 COVERAG			REVISION NUMBER	:						
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	IDICATED. NOTWITHSTANDING ANY REQUI ERTIFICATE MAY BE ISSUED OR MAY PERTA													
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INSR LTR	TYPE OF INSURANCE	ADDL	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)		LIMITS						
LIK	COMMERCIAL GENERAL LIABILITY	INSD	WVD	POLICI NUMBER	(WIW/DD/TTTT)	(WIW/DD/TTTT)	EACH OCCURRENCE		00,000					
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	CLAIMS-MADE	1					AGGREGATE	- 3	mil Total					
	WORKERS COMPENSATION						➤ PER CE	TH- R						
١.	AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE						E.L. EACH ACCIDENT		00,000					
Α	OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	PSW0001136		PSW0001136	08/01/2023	08/01/2024	E.L. DISEASE - EA EMPLO	10	00,000					
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LI	10	00,000					
							ECH CLAIM/ANN AG		mil/\$5mil +					
В	PROFESSIONAL LIABILITY & EXCESS PROFESSIONAL LIABILITY			PAAEP0129103/XS230517	08/01/2023	08/01/2024	ECH CLAIM/ANN AG	G \$5r	mil/\$5mil =					
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	dence of coverage in force. Contractual insu			· ·										
CF	RTIFICATE HOLDER			C.	ANCELLATION									
	FOR PROPOSAL PURPOSES	ONLY			SHOULD ANY OF T	DATE THEREOI	SCRIBED POLICIES BE F, NOTICE WILL BE DEI Y PROVISIONS.		ED BEFORE					

AUTHORIZED REPRESENTATIVE

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TO VERIFY COVERAGE IN FORCE

CONTACT CORNERSTONE SPECIALTY

9. Exceptions and Deviations

PBS Engineers, Inc. has no objection to the contract requirements as set forth in Exhibit E.

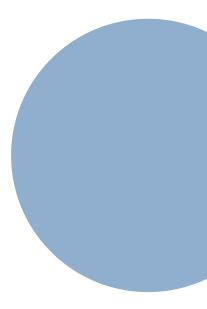




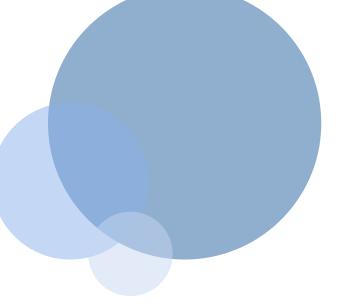
EXHIBIT D

PROPOSAL ACKNOWLEDGEMENT FORM

The Proposer hereby acknowledges receipt of addenda number(s) 1 (4/11/2024) , if any.

By signing below, the Proposer agrees to all terms and conditions in this RFP, except where expressly described in the Proposer's Services Proposal.

Sill Shu	770599129		
Original Signature by Authorized Officer/Agent	Vendor's Tax ID Number (FEIN)		
Kunal Shah	PBS Engineers, Inc.		
Type/Print Name of Signatory	Company Name		
President CEO	(626) 650-0350		
Title	Phone Number		
2100 E Route 66, Glendora, CA 91740	(626) 650-0352		
Consultant Mailing Address	Fax Number		
	https://pbsengineers.com/		
Form of Business (mark one of the	Website Address		
following):	kshah@pbsengineers.com		
□Sole Proprietor/Individual	E-mail Address		
□Partnership			
位Corporation			
□Limited Liability Company (LLC)			
If a corporation, the State where it is incorporated: California			





Thank you for the opportunity to share our qualifications with your team.

Please feel free the contact us at 626.650.0350 or nopatel@pbsengineers.com with any questions you might have.

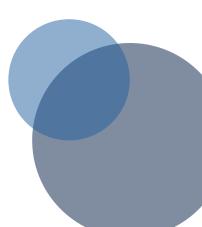


EXHIBIT "B"

SCHEDULE OF SERVICES AND COMPENSATION



Fee Proposal

SUBMITTAL SCHEDULE				
Item	Description	Weeks		
1	Site Investigation, As-Built Drawings Review and Schematic Assessment	2		
	Report / Design			
	Electronic Files			
2	City Review and Comments	1		
3	Design Development 30% Submittal	4		
	Electronic Files			
	Basis of Design			
	30% CD Drawings			
	Outline Specification TOC			
4	City Review and Comments	2		
5	Construction Design Phase 60% Submittal	3		
	Electronic Files			
	Specifications			
	50% CD Drawings			
6	City Review and Comments	2		
7	Final Plans and Specifications 90% Submittal	3		
	Electronic Files			
	Pre-Final Specifications (stamped and signed)			
8	City Review and Comments	1		
9	Plan Check Final Submittal (Stamped and Signed)	6		
	100% Drawings			
	100% Specifications			
	100% Cut Sheets			
	100% Calculations			
	Electronic Files			
10	Bid Document	2		
	TOTAL WEEKS	26		

COMPENSATION BY PERCENTAGE & A/E FEE							
No.	Phase	Percentage of Fee	Total				
1	Site Investigation & Assessment	10%	\$7,400.00				
2	Design Development	25%	\$18,500.00				
3	60% Construction Documents	20%	\$14,800.00				
4	100% Construction Documents	20%	\$14,800.00				
5	Plan Check Review and Approval	5%	\$3,700.00				
6	Bidding and Award	2%	\$1,480.00				
7	Construction Administration	15%	\$11,100.00				
8	Project Closeout – Record Set	3%	\$2,220.00				
	TOTAL PERCENTAGE OF FEE & A/E FEE 100% \$74,000.00						

Notes:

- 1. Plan Check Fee paid by the City.
- 2. Additional service per City's request.
- 3. 10% mark-up on consultants' additional service.
- 4. See attached Schedule of Charges.
- 5. City shall provide as-built record drawings.
- 6. Duct leakage test is included with optional fee refer to Table-B.
- 7. Duct cleaning specification and scope of work direction is included under the main design scope.
- 8. Prereading air flow test is included with optional fee refer to Table-B.



TABLE - A					
*Optional - Contingency Fees \$21,000.00					
1. Existing roof structure and framing modification for new units' weight with roof curb and economizers.					
2. Existing units are Trane and Daikin has different supply and return duct arrangement versus Carrier units already					

purchased by the City. This may require roof opening and main supply and return duct reconfiguration.

TABLE - B						
*Optional - Fees (AABC Air Balancing Company)	\$30,000.00					
Markup 10% (PBS Engineers)	\$3,000.00					
TOTAL FEE \$33,000.00						
1. Perform air flow test for pre-air readings at each supply and return air grilles.						
2. Perform duct leakage test for all rooftop HVAC units and existing air distribution devices.						
3. Perform duct travers air flow readings on main ducts for all rooftop units.						
4. Above listed work will be performed by AABC test and balance company during second shift (after hours schedule).						

EXHIBIT "C"

FUNDING AGREEMENT



CONTRACT # 012-23010767-CV

FOR

CORONAVIRUS AID, RELIEF, AND ECONOMIC SECURITIES (CARES) ACT, H.R.748 COMMUNITY DEVELOPMENT BLOCK GRANT PUBLIC FACILITIES & IMPROVEMENTS CITY OF STANTON COMMUNITY CENTER IMPROVEMENTS

BETWEEN

COUNTY OF ORANGE

AND

CITY OF STANTON

CFDA#	FAIN#	PROGRAM/SERVICE TITLE	FUNDING AGENCY
14.218	Pending	Coronavirus Aid, Relief, and Economic Security (CARES) Act, H.R. 748	U.S. Housing & Urban Development (HUD)
		Community Development Block Grant (CDBG)/Housing Rehabilitation, Public Facilities & Improvements, and Public Services	

Table of Contents

RECIT	ΓALS	5
Gene	ral Terms and Conditions:	7
A.	Governing Law and Venue:	7
B.	Entire Contract:	7
C.	Amendments:	7
D.	Intentionally left blank	7
E.	Delivery:	7
F.	Acceptance Payment:	7
G.	Intentionally left blank:	7
Н.	Patent/Copyright Materials/Proprietary Infringement:	7
l.	Assignment:	8
J.	Non-Discrimination:	8
K.	Termination:	8
L.	Consent to Breach Not Waiver:	8
M.	Independent Subrecipient:	8
N.	Performance Warranty:	8
Ο.	Insurance Requirements:	9
P.	Changes:	12
Q.	Change of Ownership/Name, Litigation Status, Conflicts with County Interest:	12
R.	Force Majeure:	13
S.	Confidentiality:	13
T.	Compliance with Laws:	13
U.	Intentionally left blank	13
V.	Severability:	13
W.	Attorney Fees:	13
Χ.	Interpretation:	13
Y.	Employee Eligibility Verification:	14
Z.	Indemnification:	14
AA.	Audits/Inspections:	14
BB.	Contingency of Funds:	15
CC.	Expenditure Limit:	15
Addit	ional Terms and Conditions:	16
1.	Scope of Contract:	16
2.	Term of Contract	16

3.	Renewal:	. 16
4.	Maximum Obligation:	. 16
5.	Amendments - Changes/Extra Work:	. 16
6.	Breach of Contract:	. 16
7.	Conditions Affecting Work:	. 17
8.	Civil Rights:	. 17
9.	Conflict of Interest – Subrecipient's Personnel:	. 17
10.	Conflict of Interest – County Personnel:	. 17
11.	Consulting Contract – Follow-On Work:	. 17
12.	Project Manager, County:	. 18
13.	Subrecipient's Project Manager and Key Personnel:	. 18
14.	Subrecipient Personnel – Reference Checks:	. 18
15.	Data – Title To	. 18
16.	Licenses	. 19
17.	Disputes - Contract:	. 19
18.	EDD Independent Subrecipient Reporting Requirements:	. 19
19.	Emergency/Declared Disaster Requirements:	20
20.	Errors and Omissions:	20
21.	Non-Supplantation of Funds:	21
22.	Satisfactory Work	21
23.	Access and Records:	. 21
24.	Signature in Counterparts	. 22
25.	Reports/Meetings	. 22
26.	Subcontracting:	. 22
27.	Equal Employment Opportunity:	. 22
28.	Gratuities	23
29.	News/Information Release:	23
30.	Notices	23
31.	Ownership of Documents	. 24
32.	Precedence:	24
33.	Termination – Orderly:	. 24
34.	County Branding Requirements – Publicity, Literature, Advertisement and Soc Media:	
Progr	ram Specific Terms and Conditions:	
	Debarment:	
36.	Lobbying:	. 26

37	⁷ . Fraud:	. 26
38	3. Fiscal Accountability:	. 26
39	9. Performance Standards:	. 27
40). Budget Schedule:	. 27
41	1. Payment Requirements:	. 27
42	2. Modification of Budget:	. 29
43	3. Annual Audit:	. 29
44	UEI and D-U-N-S Number and Related Information:	. 29
45	5. Program Income:	. 30
46	S. Performance:	. 30
47	7. Performance Monitoring:	. 32
48	3. Federal Administrative and Related Requirements:	. 32
49	9. Definitions:	. 43
Sigr	nature Page	. 46

ATTACHMENTS

Attachment A - Scope of Services

Attachment B - Payment/Compensation

Attachment C - Budget Schedule

Attachment D - Staffing Plan

Attachment E- Performance Standards

EXHIBITS

Exhibit 1- OC Community Resources Contract Reimbursement Policy

Exhibit 2 – Drug Free Workplace Certification

Exhibit 3 – Debarment and Suspension Certificate

Exhibit 4 – Disclosure Form to Report Lobbying

Exhibit 5 - Lobbying Certification

Contract # 012-23010767-CV with City of Stanton for

Coronavirus Aid, Relief, and Economic Security (CARES) Act, H.R. 748
Community Development Block Grant
Public Facilities & Improvements City of Stanton Community Center Improvements

This Contract # 012-23010767-CV for Coronavirus Aid, Relief, and Economic Security (CARES) Act, H.R. 748 / Community Development Block Grant / Public Facilities & Improvements/ City of Stanton Community Center Improvements(hereinafter referred to as "Contract") is made and entered into as of the date fully executed by and between the County of Orange, a political subdivision of the State of California; hereinafter referred to as "County" and City of Stanton, D-U-N-S 096892401 and UEI# P5N5EKP9DD46, a California Municipality, with a place of business at 7800 Katella Ave., Stanton, CA 90680 (hereinafter referred to as "Subrecipient"), with County and Subrecipient sometimes referred to as "party" or collectively as "parties".

ATTACHMENTS

This Contract is comprised of this document and the following Attachments, which are attached hereto and incorporated by reference into this Contract:

Attachment A – Scope of Services
Attachment B – Payment/Compensation
Attachment C – Budget Schedule
Attachment D – Staffing Plan
Attachment E- Performance Standards
Exhibit 1– OC Community Resources Contract Reimbursement Policy
Exhibit 2 – Drug Free Workplace Certification
Exhibit 3 – Debarment and Suspension Certificate
Exhibit 4 – Disclosure Form to Report Lobbying
Exhibit 5 – Certification Regarding Lobbying

RECITALS

WHEREAS, Subrecipient and County are entering into this Contract for Coronavirus Aid, Relief, and Economic Security (CARES) Act, H.R. 748 / Community Development Block Grant / Public Facilities & Improvements/ City of Stanton Community Center Improvements9under a cost reimbursement Contract; and

WHEREAS, County solicited, under Agenda Staff Report approved by the Board of Supervisors of Orange County on November 8, 2022, this Contract for services as set forth herein, and Subrecipient represented that it is qualified to provide Coronavirus Aid, Relief, and Economic Security (CARES) Act, H.R. 748 / Community Development Block Grant / Public

County of Orange OC Community Resources Page 5 of 46

City of Stanton

Contract # 012-23010767-CV

Facilities & Improvements/ City of Stanton Community Center Improvements to the County as further set forth here; and

WHEREAS, Subrecipient agrees to provide Coronavirus Aid, Relief, and Economic Security (CARES) Act, H.R. 748 / Community Development Block Grant / Public Facilities & Improvements/ City of Stanton Community Center Improvements to the County as further set forth in the Scope of Service, attached hereto as Attachment A; and

WHEREAS, County agrees to pay Subrecipient based on the schedule of fees set forth in Payment/Compensation, attached hereto as Attachment B; and

WHEREAS, Subrecipient agrees to manage allotted funding set forth in the Budget Schedule, attached hereto as Attachment C; and

WHEREAS, Subrecipient agrees to provide staff set forth in Staffing Plan, attached hereto as Attachment D; and

WHEREAS, the County Board of Supervisors has authorized the OC Community Resources Director or his designee to enter into a Contract for Coronavirus Aid, Relief, and Economic Security (CARES) Act, H.R. 748 / Community Development Block Grant / Public Facilities & Improvements/ City of Stanton Community Center Improvements with the Subrecipient to carry out certain program services and activities;

NOW, **THEREFORE**, the Parties mutually agree as follows:

ARTICLES

General Terms and Conditions:

- A. **Governing Law and Venue:** This Contract has been negotiated and executed in the State of California and shall be governed by and construed under the laws of the State of California. In the event of any legal action to enforce or interpret this Contract, the sole and exclusive venue shall be a court of competent jurisdiction located in Orange County, California, and the parties hereto agree to and do hereby submit to the jurisdiction of such court, notwithstanding Code of Civil Procedure Section 394. Furthermore, the parties specifically agree to waive any and all rights to request that an action be transferred for adjudication to another county.
- B. **Entire Contract:** This Contract contains the entire Contract between the parties with respect to the matters herein, and there are no restrictions, promises, warranties or undertakings other than those set forth herein or referred to herein. No exceptions, alternatives, substitutes or revisions are valid or binding on County unless authorized by County in writing. Electronic acceptance of any additional terms, conditions or supplemental Contracts by any County employee or agent, including but not limited to installers of software, shall not be valid or binding on County unless accepted in writing by County's Contract Administrator.
- C. **Amendments:** No alteration or variation of the terms of this Contract shall be valid unless made in writing and signed by the parties; no oral understanding or agreement not incorporated herein shall be binding on either of the parties; and no exceptions, alternatives, substitutes or revisions are valid or binding on County unless authorized by County in writing.

D. Intentionally left blank

- E. **Delivery:** Time of delivery of goods or services is of the essence in this Contract. County reserves the right to refuse any goods or services and to cancel all or any part of the goods not conforming to applicable specifications, drawings, samples or descriptions or services that do not conform to the prescribed Scope of Services. Acceptance of any part of the order for goods shall not bind County to accept future shipments nor deprive it of the right to return goods already accepted at Subrecipient's expense. Over shipments and under shipments of goods shall be only as agreed to in writing by County. Delivery shall not be deemed to be complete until all goods or services have actually been received and accepted in writing by County.
- F. **Acceptance Payment:** Unless otherwise agreed to in writing by County, 1) acceptance shall not be deemed complete unless in writing and until all the goods/services have actually been received, inspected, and tested to the satisfaction of County, and 2) payment shall be made in arrears after satisfactory acceptance.

G. Intentionally left blank:

H. Patent/Copyright Materials/Proprietary Infringement: Unless otherwise expressly provided in this Contract, Subrecipient shall be solely responsible for clearing the right

to use any patented or copyrighted materials in the performance of this Contract. Subrecipient warrants that any software as modified through services provided hereunder will not infringe upon or violate any patent, proprietary right, or trade secret right of any third party. Subrecipient agrees that, in accordance with the more specific requirement contained in paragraph "Z" below, it shall indemnify, defend and hold County and County Indemnitees harmless from any and all such claims and be responsible for payment of all costs, damages, penalties and expenses related to or arising from such claim(s), including, costs and expenses but not including attorney's fees.

- I. Assignment: The terms, covenants, and conditions contained herein shall apply to and bind the heirs, successors, executors, administrators and assigns of the parties. Furthermore, neither the performance of this Contract nor any portion thereof may be assigned by Subrecipient without the express written consent of County. Any attempt by Subrecipient to assign the performance or any portion thereof of this Contract without the express written consent of County shall be invalid and shall constitute a breach of this Contract.
- J. Non-Discrimination: In the performance of this Contract, Subrecipient agrees that it will comply with the requirements of Section 1735 of the California Labor Code and not engage nor permit any subcontractors to engage in discrimination in employment of persons because of the race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, or sex of such persons. Subrecipient acknowledges that a violation of this provision shall subject Subrecipient to penalties pursuant to Section 1741 of the California Labor Code.
- K. Termination: In addition to any other remedies or rights it may have by law, County has the right to immediately terminate this Contract without penalty for cause or after 30 days' written notice without cause, unless otherwise specified. Cause shall be defined as any material breach of contract, any misrepresentation or fraud on the part of the Subrecipient. Exercise by County of its right to terminate the Contract shall relieve County of all further obligation.
- L. Consent to Breach Not Waiver: No term or provision of this Contract shall be deemed waived and no breach excused, unless such waiver or consent shall be in writing and signed by the party claimed to have waived or consented. Any consent by any party to, or waiver of, a breach by the other, whether express or implied, shall not constitute consent to, waiver of, or excuse for any other different or subsequent breach.
- M. Independent Subrecipient: Subrecipient shall be considered an independent contractor and neither Subrecipient, its employees, nor anyone working under Subrecipient shall be considered an agent or an employee of County. Neither Subrecipient, its employees nor anyone working under Subrecipient shall qualify for workers' compensation or other fringe benefits of any kind through County.
- N. **Performance Warranty:** Subrecipient shall warrant all work under this Contract, taking necessary steps and precautions to perform the work to County's satisfaction. Subrecipient shall be responsible for the professional quality, technical assurance, timely completion and coordination of all documentation and other goods/services

furnished by the Subrecipient under this Contract. Subrecipient shall perform all work diligently, carefully, and in a good and workmanlike manner; shall furnish all necessary labor, supervision, machinery, equipment, materials, and supplies, shall at its sole expense obtain and maintain all permits and licenses required by public authorities, including those of County required in its governmental capacity, in connection with performance of the work. If permitted to subcontract, Subrecipient shall be fully responsible for all work performed by subcontractors.

O. Insurance Requirements:

Prior to the provision of services under this Contract, the Subrecipient agrees to purchase all required insurance at Subrecipient's expense, including all endorsements required herein, necessary to satisfy the County that the insurance provisions of this Contract have been complied with. Subrecipient agrees to keep such insurance coverage, Certificates of Insurance, and endorsements on deposit with the County during the entire term of this Contract. In addition, all subcontractors performing work on behalf of Subrecipient pursuant to this Contract shall obtain insurance subject to the same terms and conditions as set forth herein for Subrecipient.

Subrecipient shall ensure that all subcontractors performing work on behalf of Subrecipient pursuant to this Contract shall be covered under Subrecipient's insurance as an Additional Insured or maintain insurance subject to the same terms and conditions as set forth herein for Subrecipient. Subrecipient shall not allow subcontractors to work if subcontractors have less than the level of coverage required by County from Subrecipient under this Contract. It is the obligation of Subrecipient to provide notice of the insurance requirements to every subcontractor and to receive proof of insurance prior to allowing any subcontractor to begin work. Such proof of insurance must be MAINTAINED by Subrecipient through the entirety of this Contract for inspection by County representative(s) at any reasonable time.

All self-insured retentions (SIRs) shall be clearly stated on the Certificate of Insurance. Any self-insured retention (SIR) in an amount in excess of Fifty Thousand Dollars (\$50,000) shall specifically be approved by the County's Risk Manager, or designee, upon review of Subrecipient's current audited financial report. If Subrecipient's SIR is approved, Subrecipient, in addition to, and without limitation of, any other indemnity provision(s) in this Contract, agrees to all of the following:

- In addition to the duty to indemnify and hold the County harmless against any and all liability, claim, demand or suit resulting from Subrecipient's, its agents, employee's or subcontractor's performance of this Contract, Subrecipient shall defend the County at its sole cost and expense with counsel approved by Board of supervisors against same; and
- 2) Subrecipient's duty to defend, as stated above, shall be absolute and irrespective of any duty to indemnify or hold harmless; and
- 3) The provisions of California Civil Code Section 2860 shall apply to any and all actions to which the duty to defend stated above applies, and the Subrecipient's SIR provision shall be interpreted as though the Subrecipient was an insurer and the County was the insured.

If the Subrecipient fails to maintain insurance acceptable to the County for the full term of this Contract, the County may terminate this Contract.

Qualified Insurer

The policy or policies of insurance must be issued by an insurer with a minimum rating of A- (Secure A.M. Best's Rating) and VIII (Financial Size Category as determined by the most current edition of the Best's Key Rating Guide/Property-Casualty/United States or ambest.com). It is preferred, but not mandatory, that the insurer be licensed to do business in the State of California (California Admitted Carrier).

If the insurance carrier does not have an A.M. Best Rating of A-/VIII, the CEO/Office of Risk Management retains the right to approve or reject a carrier after a review of the company's performance and financial ratings.

The policy or policies of insurance maintained by the Subrecipient shall provide the minimum limits and coverage as set forth below:

Coverage	Minimum Limits
Commercial General Liability	\$1,000,000 per occurrence \$2,000,000 aggregate
Automobile Liability including coverage for owned, non-owned and hired vehicles	\$1,000,000 per occurrence
Workers Compensation	Statutory
Employers Liability Insurance	\$1,000,000 per occurrence
Network Security & Privacy Liability	\$1,000,000 per claims-made
Professional Liability	\$1,000,000 per claims-made \$1,000,000 aggregate
Sexual Misconduct	\$1,000,000 per occurrence
Employee Dishonesty	\$100,000 per occurrence

Required Coverage Forms

The Commercial General Liability coverage shall be written on Insurance Services Office (ISO) form CG 00 01, or a substitute form providing liability coverage at least as broad.

The Business Auto Liability coverage shall be written on ISO form CA 00 01, CA 00 05, CA 0012, CA 00 20, or a substitute form providing coverage at least as broad.

Required Endorsements

The Commercial General Liability policy shall contain the following endorsements, which shall accompany the Certificate of Insurance:

- 1) An Additional Insured endorsement using ISO form CG 20 26 04 13 or a form at least as broad naming the *County of Orange its elected and appointed officials, officers, agents and employees* as Additional Insureds, or provide blanket coverage, which will state *AS REQUIRED BY WRITTEN Contract.*
- 2) A primary non-contributing endorsement using ISO form CG 20 01 04 13, or a form at least as broad evidencing that the Subrecipient's insurance is primary and any insurance or self-insurance maintained by the County of Orange shall be excess and non-contributing.

The Network Security and Privacy Liability policy shall contain the following endorsements which shall accompany the Certificate of Insurance:

- An Additional Insured endorsement naming the County of Orange, its elected and appointed officials, officers, agents and employees as Additional Insureds for its vicarious liability.
- 2) A primary and non-contributing endorsement evidencing that the Subrecipient's insurance is primary and any insurance or self-insurance maintained by the County of Orange shall be excess and non-contributing.

The Workers' Compensation policy shall contain a waiver of subrogation endorsement waiving all rights of subrogation against the *County of Orange, its elected and appointed officials, officers, agents and employees* or provide blanket coverage, which will state *AS REQUIRED BY WRITTEN Contract.*

All insurance policies required by this Contract shall waive all rights of subrogation against the County of Orange, its elected and appointed officials, officers, agents and employees when acting within the scope of their appointment or employment.

The County of Orange shall be the loss payee on the Employee Dishonesty coverage. A Loss Payee endorsement evidencing that the County of Orange is a Loss Payee shall accompany the Certificate of Insurance.

Subrecipient shall notify County in writing within thirty (30) days of any policy cancellation and ten (10) days for non-payment of premium and provide a copy of the cancellation notice to County. Failure to provide written notice of cancellation may constitute a material breach of the Contract, upon which the County may suspend or terminate this Contract.

If Subrecipient's Professional Liability and Network Security & Privacy Liability are "Claims-Made" policy(ies), Subrecipient shall agree to maintain coverage for two (2) years following the completion of the Contract.

The Commercial General Liability policy shall contain a severability of interests clause also known as a "separation of insureds" clause (standard in the ISO CG 0001 policy).

Insurance certificates should be forwarded to the agency/department address listed on the solicitation.

If the Subrecipient fails to provide the insurance certificates and endorsements within seven (7) days of notification by the Contract Administrator, award may be made to the next qualified vendor.

County expressly retains the right to require Subrecipient to increase or decrease insurance of any of the above insurance types throughout the term of this Contract. Any increase or decrease in insurance will be as deemed by County of Orange Risk Manager as appropriate to adequately protect County.

County shall notify Subrecipient in writing of changes in the insurance requirements. If Subrecipient does not deposit copies of acceptable Certificates of Insurance and endorsements with County incorporating such changes within thirty (30) days of receipt of such notice, this Contract may be in breach without further notice to Subrecipient, and County shall be entitled to all legal remedies.

The procuring of such required policy or policies of insurance shall not be construed to limit Subrecipient's liability hereunder nor to fulfill the indemnification provisions and requirements of this Contract, nor act in any way to reduce the policy coverage and limits available from the insurer.

- P. **Changes:** Subrecipient shall make no changes in the work or perform any additional work without the County's specific written approval.
- Q. Change of Ownership/Name, Litigation Status, Conflicts with County Interest: Subrecipient agrees that if there is a change or transfer in ownership of Subrecipient's business prior to completion of this Contract, and the County agrees to an assignment of the Contract, the new owners shall be required under terms of sale or other instruments of transfer to assume Subrecipient's duties and obligations contained in this Contract and complete them to the satisfaction of the County.

County reserves the right to immediately terminate the Contract in the event the County determines that the assignee is not qualified or is otherwise unacceptable to the County for the provision of services under the Contract.

In addition, Subrecipient has the duty to notify the County in writing of any change in the Subrecipient's status with respect to name changes that do not require an assignment of the Contract. The Subrecipient is also obligated to notify the County in writing if the Subrecipient becomes a party to any litigation against the County, or a party to litigation that may reasonably affect the Subrecipient's performance under the Contract, as well as any potential conflicts of interest between Subrecipient and County that may arise prior to or during the period of Contract performance. While Subrecipient will be required to provide this information without prompting from the County any time there is a change in Subrecipient's name, conflict of interest or litigation status, Subrecipient must also

provide an update to the County of its status in these areas whenever requested by the County.

The Subrecipient shall exercise reasonable care and diligence to prevent any actions or conditions that could result in a conflict with County interests. In addition to the Subrecipient, this obligation shall apply to the Subrecipient's employees, agents, and subcontractors associated with the provision of goods and services provided under this Contract. The Subrecipient's efforts shall include, but not be limited to establishing rules and procedures preventing its employees, agents, and subcontractors from providing or offering gifts, entertainment, payments, loans or other considerations which could be deemed to influence or appear to influence County staff or elected officers in the performance of their duties.

- R. **Force Majeure:** Subrecipient shall not be assessed with liquidated damages or unsatisfactory performance penalties during any delay beyond the time named for the performance of this Contract caused by any act of God, war, civil disorder, employment strike or other cause beyond its reasonable control, provided Subrecipient gives written notice of the cause of the delay to County within 36 hours of the start of the delay and Subrecipient avails himself of any available remedies.
- S. **Confidentiality:** Subrecipient agrees to maintain the confidentiality of all County and County-related records and information pursuant to all statutory laws relating to privacy and confidentiality that currently exist or exist at any time during the term of this Contract. All such records and information shall be considered confidential and kept confidential by Subrecipient and Subrecipient's staff, agents and employees.
- T. Compliance with Laws: Subrecipient represents and warrants that services to be provided under this Contract shall fully comply, at Subrecipient's expense, with all standards, laws, statutes, restrictions, ordinances, requirements, and regulations (collectively "laws"), including, but not limited to those issued by County in its governmental capacity and all other laws applicable to the services at the time services are provided to and accepted by County. Subrecipient acknowledges that County is relying on Subrecipient to ensure such compliance, and pursuant to the requirements of paragraph "Z" below, Subrecipient agrees that it shall defend, indemnify and hold County and County Indemnitees (defined below) harmless from all liability, damages, costs and expenses arising from or related to a violation of such laws.

U. Intentionally left blank

- V. Severability: If any term, covenant, condition or provision of this Contract is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remainder of the provisions hereof shall remain in full force and effect and shall in no way be affected, impaired or invalidated thereby.
- W. **Attorney Fees:** In any action or proceeding to enforce or interpret any provision of this Contract, each party shall bear their own attorney's fees, costs and expenses.
- X. **Interpretation:** This Contract has been negotiated at arm's length and between persons sophisticated and knowledgeable in the matters dealt with in this Contract. In

addition, each party had been represented by experienced and knowledgeable independent legal counsel of their own choosing or has knowingly declined to seek such counsel despite being encouraged and given the opportunity to do so. Each party further acknowledges that they have not been influenced to any extent whatsoever in executing this Contract by any other party hereto or by any person representing them, or both. Accordingly, any rule or law (including California Civil Code Section 1654) or legal decision that would require interpretation of any ambiguities in this Contract against the party that has drafted it is not applicable and is waived. The provisions of this Contract shall be interpreted in a reasonable manner to effect the purpose of the parties and this Contract.

- Y. **Employee Eligibility Verification:** The Subrecipient warrants that it fully complies with all Federal and State statutes and regulations regarding the employment of aliens and others and that all its employees performing work under this Contract meet the citizenship or alien status requirement set forth in Federal statutes and regulations. The Subrecipient shall obtain, from all employees performing work hereunder, all verification and other documentation of employment eligibility status required by Federal or State statutes and regulations including, but not limited to, the Immigration Reform and Control Act of 1986, 8 U.S.C. §1324 et seq., as they currently exist and as they may be hereafter The Subrecipient shall retain all such documentation for all covered employees for the period prescribed by the law. The Subrecipient shall indemnify, defend with counsel approved in writing by County, and hold harmless, the County, and its County Indemnitees, its agents, officers, and employees from employer sanctions and any other liability which may be assessed against the Subrecipient or the County or County Indemnitees, any combination of the three in connection with any alleged violation of any Federal or State statutes or regulations pertaining to the eligibility for employment of any persons performing work under this Contract.
- Z. Indemnification: Subrecipient agrees to indemnify, defend with counsel approved in writing by County, and hold County, its elected and appointed officials, officers, employees, agents and those special districts and agencies which County's Board of Supervisors acts as the governing Board ("County Indemnitees") harmless from any claims, demands or liability of any kind or nature, including but not limited to personal injury or property damage, arising from or related to the services, products or other performance provided by Subrecipient pursuant to this Contract. If judgment is entered against Subrecipient and County by a court of competent jurisdiction because of the concurrent active negligence of County or County Indemnitees, Subrecipient and County agree that liability will be apportioned as determined by the court. Neither party shall request a jury apportionment.
- AA. Audits/Inspections: Subrecipient agrees to permit the County's Auditor-Controller or the Auditor-Controller's authorized representative (including auditors from a private auditing firm hired by the County) access during normal working hours to all books, accounts, records, reports, files, financial records, supporting documentation, including payroll and accounts payable/receivable records, and other papers or property of Subrecipient for the purpose of auditing or inspecting any aspect of performance under this Contract. The inspection and/or audit will be confined to those matters connected with the performance of the Contract including, but not limited to, the costs of

administering the Contract. The County will provide reasonable notice of such an audit or inspection.

The County reserves the right to audit and verify the Subrecipient's records before final payment is made.

Subrecipient agrees to maintain such records for possible audit for a minimum of three years after final payment, unless a longer period of records retention is stipulated under this Contract or by law. Subrecipient agrees to allow interviews of any employees or others who might reasonably have information related to such records. Further, Subrecipient agrees to include a similar right to the County to audit records and interview staff of any subcontractor related to performance of this Contract.

Should the Subrecipient cease to exist as a legal entity, the Subrecipient's records pertaining to this Contract shall be forwarded to the County's Project Manager.

- BB. Contingency of Funds: Subrecipient acknowledges that funding or portions of funding for this Contract may be contingent upon State budget approval; receipt of funds from, and/or obligation of funds by, the State of California to County; receipt of funds from the Department of Housing and Urban Development ("HUD"), and inclusion of sufficient funding for the services hereunder in the budget approved by County's Board of Supervisors for each fiscal year covered by this Contract. If such approval, funding or appropriations are not forthcoming, or are otherwise limited, County may immediately terminate or modify this Contract without penalty.
- CC. **Expenditure Limit:** The Subrecipient shall notify the County of Orange assigned Contract Administrator in writing when the expenditures against the Contract reach 75 percent of the dollar limit on the Contract. The County will not be responsible for any expenditure overruns and will not pay for work exceeding the dollar limit on the Contract unless a written and approved change order to cover those costs has been issued. Board of Supervisor approval may be required.

Additional Terms and Conditions:

- 1. Scope of Contract: This Contract specifies the contractual terms and conditions by which the County will procure Coronavirus Aid, Relief, and Economic Security (CARES) Act, H.R. 748 / Community Development Block Grant / Public Facilities & Improvements/ City of Stanton Community Center Improvements from Subrecipient as further detailed in the Scope of Services, identified and incorporated herein by this reference as "Attachment A".
- 2. **Term of Contract:** This Contract shall commence on January 25, 2023 and continue through August 31, 2023, unless otherwise terminated by the County.
- 3. **Renewal:** This Contract may not be renewed.

4. Maximum Obligation:

The total Maximum Obligation of County to the Subrecipient for the cost of services provided in accordance with this Contract is \$500,000, with individual Maximum Obligation budgets for each Fiscal Year as further detailed in the Budget Schedule, identified and incorporated herein by this reference as Attachment "C".

5. Amendments - Changes/Extra Work: The Subrecipient shall make no changes to this Contract without the County's written consent. In the event that there are new or unforeseen requirements, the County has the discretion with the Subrecipient's concurrence, to make changes at any time without changing the scope or price of the Contract.

If County-initiated changes or changes in laws or government regulations affect price, the Subrecipient's ability to deliver services, or the project schedule, the Subrecipient will give County written notice no later ten (10) days from the date the law or regulation went into effect or the date the change was proposed and Subrecipient was notified of the change. Such changes shall be agreed to in writing and incorporated into a Contract amendment. Said amendment shall be issued by the County-assigned Contract Administrator, shall require the mutual consent of all Parties, and may be subject to approval by the County Board of Supervisors. Nothing herein shall prohibit the Subrecipient from proceeding with the work as originally set forth or as previously amended in this Contract.

- 6. **Breach of Contract:** The failure of the Subrecipient to comply with any of the provisions, covenants or conditions of this Contract shall be a material breach of this Contract. In such event the County may, and in addition to any other remedies available at law, in equity, or otherwise specified in this Contract:
 - a) Terminate the Contract immediately, pursuant to Section K herein;
 - b) Afford the Subrecipient written notice of the breach and ten (10) calendar days or such shorter time that may be specified in this Contract within which to cure the breach:

c) Discontinue payment to the Subrecipient for and during the period in which the Subrecipient is in breach; and

Offset against any monies billed by the Subrecipient but yet unpaid by the County those monies disallowed pursuant to the above.

7. Conditions Affecting Work:

The Subrecipient shall be responsible for taking all steps reasonably necessary, to ascertain the nature and location of the work to be performed under this Contract; and to know the general conditions which can affect the work or the cost thereof. Any failure by the Subrecipient to do so will not relieve Subrecipient from responsibility for successfully performing the work without additional cost to the County. The County assumes no responsibility for any understanding or representations concerning the nature, location(s) or general conditions made by any of its officers or agents prior to the execution of this Contract, unless such understanding or representations by the County are expressly stated in the Contract.

- 8. **Civil Rights:** Subrecipient attests that services provided shall be in accordance with the provisions of Title VI and Title VII of the Civil Rights Act of 1964, as amended, Section 504 of the Rehabilitation Act of 1973, as amended; the Age Discrimination Act of 1975 as amended; Title II of the Americans with Disabilities Act of 1990, and other applicable State and Federal laws and regulations prohibiting discrimination on the basis of race, color, national origin, ethnic group identification, age, religion, marital status, sex or disability.
- 9. Conflict of Interest Subrecipient's Personnel: The Subrecipient shall exercise reasonable care and diligence to prevent any actions or conditions that could result in a conflict with the best interests of the County. This obligation shall apply to the Subrecipient; the Subrecipient's employees, agents, and subcontractors associated with accomplishing work and services hereunder. The Subrecipient's efforts shall include, but not be limited to establishing precautions to prevent its employees, agents, and subcontractors from providing or offering gifts, entertainment, payments, loans or other considerations which could be deemed to influence or appear to influence County staff or elected officers from acting in the best interests of the County.
- 10. Conflict of Interest County Personnel: The County of Orange Board of Supervisors policy prohibits its employees from engaging in activities involving a conflict of interest. The Subrecipient shall not, during the period of this Contract, employ any County employee for any purpose.

11. Consulting Contract – Follow-On Work:

No person, firm, subsidiary or subcontractor of a firm that has been awarded a consulting services contract or a contract which includes a consulting component may be awarded a Contract for the performance of services, the purchase of goods or supplies, or the provision of any other related action which arises from or can reasonably be deemed an end-product of work performed under the initial consulting to consulting-related Contract.

12. Project Manager, County:

The County shall appoint a Project Manager to act as liaison between the County and the Subrecipient during the term of this Contract. The County's Project Manager shall coordinate the activities of the County staff assigned to work with the Subrecipient.

The County's Project Manager, in consultation and agreement with the County, shall have the right to require the removal and replacement of the Subrecipient's Project Manager and key personnel. The County's Project Manager shall notify the Subrecipient in writing of such action. The Subrecipient shall accomplish the removal within three (3) business days after written notice from the County's Project Manager. The County's Project Manager shall review and approve the appointment of the replacement for the Subrecipient's Project Manager and key personnel. Said approval shall not be unreasonably withheld. The County is not required to provide any additional information, reason or rationale in the event it requires the removal of Subrecipient's Project Manager from providing further services under the Contract.

13. **Subrecipient's Project Manager and Key Personnel:** Subrecipient shall appoint a Project Manager to direct the Subrecipient's efforts in fulfilling Subrecipient's obligations under this Contract. This Project Manager shall be subject to approval by the County and shall not be changed without the written consent of the County's Project Manager, which consent shall not be unreasonably withheld.

The Subrecipient's Project Manager, in consultation and agreement with County, shall be assigned to this project for the duration of the Contract and shall diligently pursue all work and services to meet the project time lines. The County's Project Manager shall have the right to require the removal and replacement of the Subrecipient's Project Manager from providing services to the County under this Contract. The County's Project Manager shall notify the Subrecipient in writing of such action. The Subrecipient shall accomplish the removal within five (5) business days after written notice by the County's Project Manager. The County's Project Manager shall review and approve the appointment of the replacement for the Subrecipient's Project Manager. The County is not required to provide any additional information, reason or rationale in the event it The County is not required to provide any additional information, reason or rationale in the event it requires the removal of Subrecipient's Project Manager from providing further services under the Contract.

- 14. Subrecipient Personnel Reference Checks: The Subrecipient warrants that all persons employed to provide service under this Contract have satisfactory past work records indicating their ability to adequately perform the work under this Contract. Subrecipient's employees assigned to this project must meet character standards as demonstrated by background investigation and reference checks, coordinated by the agency/department issuing this Contract.
- 15. Data Title To: All materials, documents, data or information obtained from the County data files or any County medium furnished to the Subrecipient in the performance of this Contract will at all times remain the property of the County. Such data or information may not be used or copied for direct or indirect use by the Subrecipient after completion or termination of this Contract without the express written consent of the County. All

- materials, documents, data or information, including copies, must be returned to the County at the end of this Contract.
- 16. Licenses: At its own expense, Subrecipient and its subcontractors, if any, shall, at all time during the term of this Contract, maintain in full force and effect such licenses or permits as may be required by the State of California or any other government entity. Subrecipient and his subcontractors, if any, shall strictly adhere to, and obey, all governmental rules and regulations now in effect or as subsequently enacted or modified, as promulgated by any local, State, or Federal governmental entity.

17. Disputes – Contract:

- A. The parties shall deal in good faith and attempt to resolve potential disputes informally. If the dispute concerning a question of fact arising under the terms of this Contract is not disposed of in a reasonable period of time by the Subrecipient's Project Manager and the County's Project Manager, such matter shall be brought to the attention of the Contract Administrator by way of the following process:
 - The Subrecipient shall submit to the agency/department assigned Contract Administrator a written demand for a final decision regarding the disposition of any dispute between the parties arising under, related to, or involving this Contract, unless the County, on its own initiative, has already rendered such a final decision.
 - 2. The Subrecipient's written demand shall be fully supported by factual information, and, if such demand involves a cost adjustment to the Contract, the Subrecipient shall include with the demand a written statement signed by a senior official indicating that the demand is made in good faith, that the supporting data are accurate and complete, and that the amount requested accurately reflects the Contract adjustment for which the Subrecipient believes the County is liable.
- B. Pending the final resolution of any dispute arising under, related to, or involving this Contract, the Subrecipient agrees to diligently proceed with the performance of this Contract, including the delivery of goods and/or provision of services. The Subrecipient's failure to diligently proceed shall be considered a material breach of this Contract.

Any final decision of the County shall be expressly identified as such, shall be in writing, and shall be signed by the Director. If the County fails to render a decision within 90 days after receipt of the Subrecipient's demand, it shall be deemed a final decision adverse to the Subrecipient's contentions. Nothing in this section shall be construed as affecting the County's right to terminate the Contract for cause or termination for convenience as stated in Section K herein.

18. **EDD Independent Subrecipient Reporting Requirements:** Effective January 1, 2001, the County of Orange is required to file in accordance with subdivision (a) of Section 6041A of the Internal Revenue Code for services received from a "service"

provider" to whom the County pays \$600 or more or with whom the County enters into a contract for \$600 or more within a single calendar year. The purpose of this reporting requirement is to increase child support collection by helping to locate parents who are delinquent in their child support obligations.

The term "service provider" is defined in California Unemployment Insurance Code Section 1088.8, Subparagraph B.2 as "an individual who is not an employee of the service recipient for California purposes and who received compensation or executes a contract for services performed for that service recipient within or without the State." The term is further defined by the California Employment Development Department to refer specifically to independent Subrecipients. An independent Subrecipient is defined as "an individual who is not an employee of the ... government entity for California purposes and who receives compensation or executes a contract for services performed for that ... government entity either in or outside of California."

The reporting requirement does not apply to corporations, general partnerships, limited liability partnerships, and limited liability companies.

Additional information on this reporting requirement can be found at the California Employment Development Department web site located at http://www.edd.ca.gov/Employer Services.htm

- 19. Emergency/Declared Disaster Requirements: In the event of an emergency or if Orange County is declared a disaster area by the County, State or Federal government, this Contract may be subjected to unusual usage. The Subrecipient shall service the County during such an emergency or declared disaster under the same terms and conditions that apply during non-emergency/disaster conditions. The pricing quoted by the Subrecipient shall apply to serving the County's needs regardless of the circumstances. If the Subrecipient is unable to supply the goods/services under the terms of the Contract, then the Subrecipient shall provide proof of such disruption and a copy of the invoice for the goods/services from the Subrecipient's supplier(s). Additional profit margin as a result of supplying goods/services during an emergency or a declared disaster shall not be permitted. In the event of an emergency or declared disaster, emergency purchase order numbers will be assigned. All applicable invoices from the Subrecipient shall show both the emergency purchase order number and the Contract number.
- 20. **Errors and Omissions:** All reports, files and other documents prepared and submitted by Subrecipient shall be complete and shall be carefully checked by the professional(s) identified by Subrecipient as Project Manager and key personnel attached hereto, prior to submission to the County. Subrecipient agrees that County review is discretionary and Subrecipient shall not assume that the County will discover errors and/or omissions. If the County discovers any errors or omissions prior to approving Subrecipient's reports, files and other written documents, the reports, files or documents will be returned to Subrecipient for correction. Should the County or others discover errors or omissions in the reports, files or other written documents submitted by the Subrecipient after County approval thereof, County approval of Subrecipient's reports, files or documents shall not be used as a defense by Subrecipient in any action between the County and

Subrecipient, and the reports, files or documents will be returned to Subrecipient for correction.

21. Non-Supplantation of Funds:

Subrecipient shall not supplant any Federal, State, or County funds intended for the purposes of this Contract with any funds made available under this Contract. Subrecipient shall not claim reimbursement from County for, or apply sums received from County with respect to, that portion of its obligations which have been paid by another source of revenue. Subrecipient agrees that it shall not use funds received pursuant to this Contract, either directly or indirectly, as a contribution or compensation for the purposes of obtaining Federal, State, or County funds under any Federal, State, or County program without prior written approval from the County.

22. **Satisfactory Work:** Services rendered hereunder are to be performed to the written satisfaction of County. County's staff will interpret all reports and determine the quality, acceptability and progress of the services rendered.

23. Access and Records:

- Α. County, the State of California and the United States Government and/or their representatives, shall have access, for purposes of monitoring, auditing, and examining, to Subrecipient's activities, books, documents and papers (including computer records and emails) and to records of Subrecipient's subcontractors. consultants, contracted employees, bookkeepers, accountants, employees and participants related to this Contract. Subrecipient shall insert this condition in each Contract between Subrecipient and a subcontractor that is pursuant to this Contract shall require the subcontractor to agree to this condition. Such departments or representatives shall have the right to make excerpts, transcripts and photocopies of such records and to schedule on site monitoring at their discretion. Monitoring activities also may include, but are not limited to, questioning employees and participants and entering any premises or onto any site in which any of the services or activities funded hereunder are conducted or in which any of the records of Subrecipient are kept. Subrecipient shall make available its books, documents, papers, financial records, etc., within three (3) days after receipt of written demand by Director which shall be deemed received upon date of sending. In the event Subrecipient does not make the above referenced documents available within the County of Orange, California, Subrecipient agrees to pay all necessary and reasonable expenses incurred by County, or County's designee, in conducting any audit at the location where said records and books of account are maintained.
- B. Records Retention. All accounting records and evidence pertaining to all costs of Subrecipient and all documents related to this Contract shall be kept available at Subrecipient's office or place of business for the duration of this Contract and thereafter for five (5) years after completion of an audit. Records which relate to: (1) complaints, claims, administrative proceedings or litigation arising out of the performance of this Contract; or (2) costs and expenses of this Contract to which

- County or any other governmental department takes exception, shall be retained beyond the five (5) years until final resolution or disposition of such appeals, litigation, claims, or exceptions.
- C. <u>Liability</u>. Subrecipient shall pay to County the full amount of County's liability to the State or Federal government or any department thereof resulting from any disallowance or other audit exceptions to the extent that such liability is attributable to Subrecipient's failure to perform under this Contract.
- 24. **Signature in Counterparts:** The Parties agree that separate copies of this Contract and/or electronic signatures and handwritten signatures may be signed by each of the Parties, and this Contract will have the same force and effect as if the Original had been signed by all the Parties.
- 25. **Reports/Meetings:** The Subrecipient shall develop reports and any other relevant documents necessary to complete the services and requirements as set forth in this contract. The County's Project Manager and the Subrecipient's Project Manager will meet on reasonable notice to discuss the Subrecipient's performance and progress under this Contract. If requested, the Subrecipient's Project Manager and other project personnel shall attend all meetings. The Subrecipient shall provide such information that is requested by the County for the purpose of monitoring progress under this Contract.
- 26. **Subcontracting:** No performance of this Contract or any portion thereof may be subcontracted by the Subrecipient without the express written consent of the County. Any attempt by the Subrecipient to subcontract any performance of this Contract without the express written consent of the County shall be invalid and shall constitute a breach of this Contract.
 - In the event that the Subrecipient is authorized by the County to subcontract, this Contract shall take precedence over the terms of the Contract between Subrecipient and subcontractor, and shall incorporate by reference the terms of this Contract. The County shall look to the Subrecipient for performance and indemnification and not deal directly with any subcontractor. All work performed by a subcontractor must meet the approval of the County of Orange.
- 27. **Equal Employment Opportunity:** The Subrecipient shall comply with U.S. Executive Order 11246 entitled, "Equal Employment Opportunity" as amended by Executive Order 11375 and as supplemented in Department of Labor regulations (41 CFR, Part 60) and applicable State of California regulations as may now exist or be amended in the future. The Subrecipient shall not discriminate against any employee or applicant for employment on the basis of race, color, national origin, ancestry, religion, sex, marital status, political affiliation or physical or mental condition.

Regarding handicapped persons, the Subrecipient will not discriminate against any employee or applicant for employment because of physical or mental handicap in regard to any position for which the employee or applicant for employment is qualified. The Subrecipient agrees to provide equal opportunity to handicapped persons in employment or in advancement in employment or otherwise treat qualified handicapped

individuals without discrimination based upon their physical or mental handicaps in all employment practices such as the following: employment, upgrading, promotions, transfers, recruitments, advertising, layoffs, terminations, rate of pay or other forms of compensation, and selection for training, including apprenticeship. The Subrecipient agrees to comply with the provisions of Sections 503 and 504 of the Rehabilitation Act of 1973, as amended, pertaining to prohibition of discrimination against qualified handicapped persons in all programs and/or activities as detailed in regulations signed by the Secretary of the Department of Health and Human Services effective June 3, 1977, and found in the Federal Register, Volume 42, No. 68 dated May 4, 1977, as may now exist or be amended in the future.

Regarding Americans with disabilities, Subrecipient agrees to comply with applicable provisions of Title 1 of the Americans with Disabilities Act enacted in 1990 as may now exist or be amended in the future.

- 28. **Gratuities:** The Subrecipient warrants that no gratuities, in the form of entertainment, gifts or otherwise, were offered or given by the Subrecipient or any agent or representative of the Subrecipient to any officer or employee of the County with a view toward securing the Contract or securing favorable treatment with respect to any determinations concerning the performance of the Contract. For breach or violation of this warranty, the County shall have the right to terminate the Contract, either in whole or in part, and any loss or damage sustained by the County in procuring on the open market any goods or services which the Subrecipient agreed to supply shall be borne and paid for by the Subrecipient. The rights and remedies of the County provided in the clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under the Contract.
- 29. **News/Information Release:** The Subrecipient agrees that it will not issue any news releases in connection with either the award of this Contract or any subsequent amendment of or effort under this Contract without first obtaining review and written approval of said news releases from the County through the County's Project Manager.
- 30. **Notices:** Any and all notices, requests demands and other communications contemplated, called for, permitted, or required to be given hereunder shall be in writing, except through the course of the Parties routine exchange of information and cooperation during the terms of the work and services. Any written communications shall be deemed to have been duly given upon actual in-person delivery, if delivery is by direct hand, or upon delivery on the actual day of receipt or no greater than four calendar days after being mailed by US certified or registered mail, return receipt requested, postage prepaid, whichever occurs first. The date of mailing shall count as the first day. All communications shall be addressed to the appropriate party at the address stated herein or such other address as the parties hereto may designate by written notice from time to time in the manner aforesaid.

For County:

OC Community Resources
Housing and Community Development
Project Manager

OC Community Resources
Contract Development and Management
Contract Administrator

1501 East St. Andrew Place, 1st Floor Santa Ana, CA 92705-4930

601 N. Ross St., 6th Floor Santa Ana, CA 92701

For Subrecipient:

City of Stanton 7800 Katella Ave. Stanton, CA 90680 Attn: Project Manager

- 31. Ownership of Documents: The County has permanent ownership of all directly connected and derivative materials produced under this Contract by the Subrecipient. All documents, reports and other incidental or derivative work or materials furnished hereunder shall become and remains the sole property of the County and may be used by the County as it may require without additional cost to the County. None of the documents, reports and other incidental or derivative work or furnished materials shall be used by the Subrecipient without the express written consent of the County.
- 32. **Precedence:** The Contract documents consist of this Contract and its exhibits and attachments. In the event of a conflict between or among the Contract documents, the order of precedence shall be the provisions of the main body of this Contract, i.e., those provisions set forth in the recitals and articles of this Contract, and then the exhibits and attachments.
- 33. **Termination Orderly:** After receipt of a termination notice from the County of Orange, the Subrecipient may submit to the County a termination claim, if applicable. Such claim shall be submitted promptly, but in no event later than 60 days from the effective date of the termination, unless one or more extensions in writing are granted by the County upon written request of the Subrecipient. Upon termination County agrees to pay the Subrecipient for all services performed prior to termination which meet the requirements of the Contract, provided, however, that such compensation combined with previously paid compensation shall not exceed the total compensation set forth in the Contract. Upon termination or other expiration of this Contract, each party shall promptly return to the other party all papers, materials, and other properties of the other held by each for purposes of performance of the Contract.
- 34. County Branding Requirements Publicity, Literature, Advertisement and Social Media:
 - A. County owns all rights to the name, logos, and symbols of County. The use and/or reproduction of County's name, logos, or symbols for any purpose, including commercial advertisement, promotional purposes, announcements, displays, or press releases, without County's prior written consent is expressly prohibited.
 - B. Subrecipient may develop and publish information related to this Contract where all of the following conditions are satisfied:

- Contract Administrator/assigned Deputy Purchasing Agent provides its written approval of the content and publication of the information at least 30 days prior to Contractor publishing the information, unless a different timeframe for approval is agreed upon by the Contract Administrator/assigned Deputy Purchasing Agent;
- 2. Unless directed otherwise by Contract Administrator/assigned Deputy Purchasing Agent, the information includes a statement that the program, wholly or in part, is funded through County, State and Federal government funds [funds identified as applicable];
- 3. The information does not give the appearance that the County, its officers, employees, or agencies endorse:
 - a. any commercial product or service; and,
 - b. any product or service provided by Subrecipient, unless approved in writing by Contract Administrator/assigned Deputy Purchasing Agent; and,
- 4. If Subrecipient uses social media (such as Facebook, Twitter, YouTube or other publicly available social media sites) to publish information related to this Contract, Subrecipient shall develop social media policies and procedures and have them available to the Contract Administrator/assigned Deputy Purchasing Agent. Subrecipient shall comply with County Social Media Use Policy and Procedures as they pertain to any social media developed in support of the services described within this Contract. The policy is available on the Internet at http://www.ocgov.com/gov/ceo/cio/govpolicies.

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Program Specific Terms and Conditions:

35. **Debarment:** Subrecipient certifies that it is not debarred or suspended or otherwise excluded from or ineligible for participation in Federal/State assistance programs in accordance with 29 CFR Part 98.

36. Lobbying:

- A. Subrecipient shall complete and immediately forward to the County the "Disclosure of Lobbying Activities," a copy of which is attached hereto as Exhibit 4 and incorporated herein by this reference, if subrecipient, or any person, firm or corporation acting on Subrecipient's behalf, engaged or engages in lobbying any federal office, employee, elected official or agency with respect to this Contract or funds to be received by subrecipient pursuant to this Contract.
- B. Subrecipient agrees that the funds provided herein shall not be used to promote, directly or indirectly, any political party, political candidate or political activity, except as permitted by law.
- 37. **Fraud:** Subrecipient shall immediately report all suspected or known instances and facts concerning possible fraud, abuse or criminal activity under this Contract. Subrecipient shall inform staff and the general public of how to report fraud, waste or abuse through appropriate postings of incident reporting notice. The County's Anti-Fraud Program can be accessed through: http://ocgov.com/gov/risk/programs/antifraud.

38. Fiscal Accountability:

- A. <u>Financial Management System</u>: Subrecipient shall establish and maintain a sound financial management system, based upon generally accepted accounting principles. Subrecipient's system shall provide fiscal control and accounting procedures that will include the following:
 - i. Information pertaining to the line items as identified in Attachment C to this Contract;
 - ii. Source documentation to support accounting records; and
 - iii. Proper charging of costs and cost allocation.
- B. <u>Subrecipient's Record</u>: Subrecipient's records shall be sufficient to:
 - i. Permit preparation of required reports:
 - ii. Permit tracking of funds to a level of expenditure adequate to establish that funds have not been used in violation of the applicable restrictions on the use of such funds;
 - iii. Permit the tracking of program income, or profits earned, and any costs incurred (such as stand-in costs) that are otherwise allowable except for; and
 - iv. Permit tracking and reporting of leveraging as required.
- C. <u>Costs Charged</u>: Cost shall be charged to this Contract only in accordance with the County and other requirements as required by funding source(s).

- 39. **Performance Standards:** Subrecipient shall comply with and adhere to the performance accountability standards as described in this Contract and applicable regulations and the activity levels to be utilized by County for program evaluation and monitoring included, but not limited to those listed in the Attachment E-Performance Standards attached hereto and incorporated herein by reference.
- 40. **Budget Schedule:** Subrecipient agrees that the expenditures of any and all funds under this Contract will be in accordance with the Budget Schedule, a copy of which is attached hereto as Attachment C, and which by this reference is incorporated herein and made a part hereof as if fully set forth.

41. Payment Requirements:

If funding levels are significantly affected by state or federal budget and funds are not allocated and available for the continuance of the function performed by Subrecipient, the Contract may be terminated by the County at the end of the period for which funds are available. The County shall notify Subrecipient at the earliest possible time of any service, which will or may be affected by a shortage of funds. No penalty shall accrue to the County in the event this provision is exercised and the County shall not be obligated nor liable for any damages as a result of termination under this provision of this Contract, and nothing herein shall be construed as obligating the County to expend or as involving the County in any Contract or other obligation for future payment of money in excess of appropriations authorized by law.

- A. Contract Amount: It is expressly agreed and understood that the total amount to be paid by County under this Contract shall not exceed the total County funding as set forth in Attachment B-Payment/Compensation to Subrecipient attached hereto and incorporated herein by reference.
- B. County will reclaim any unused balance of funds for reallocation to other County approved projects.
- C. Payment of Project Activities:
 - 1. Payment of Project Activities: County will reimburse Subrecipient for eligible project-related costs only. Subrecipient shall submit requests for reimbursement to County on a monthly basis beginning on February 1, 2023, and must provide adequate documentation as required by County in accordance with the OC Community Resources Contract Reimbursement Policy, as set forth in Exhibit 1, attached hereto and incorporated herein by reference. In addition, Subrecipient will provide a progress Grantee Performance Report ("GPR Information Form") for the time period covered, as prescribed by County. Failure to provide any of the required documentation and reporting will cause County to withhold all or a portion of a request for reimbursement, or return the entire reimbursement package to Subrecipient, until such documentation and reporting has been received and approved by County.
 - 2. If Subrecipient has no request for reimbursement during any quarter during the term of this Contract, a GPR Information Form, including and

explanation as to why no invoices were being processed, shall be required in lieu of a request for reimbursement.

3. The following "Required Expenditure Threshold" criteria have been established to guide the Subrecipient in structuring and scheduling their expenditure of funds received through this Contract, through term of Contract. The criteria thresholds are consistent with the criteria used by OC Community Resources to determine performance including, but not limited to, determinations of future award of funds, additional funding requests and/or determinations for the recapture of funding.

*Milestone Date

Minimum Required Expenditure Threshold

May 31, 2023 70% of Contracted Amount Expended
June 30, 2023 80% of Contracted Amount Expended

Failure to achieve at least the aforementioned 50% drawdown, without extenuating circumstances, may cause any remaining balance in this Contract to be reclaimed by County, and will negatively affect future funding to Subrecipient. Failure to achieve the aforementioned 80% drawdown goal, without written exception approved by the Director, may cause any remaining balance in this Contract to be reclaimed by County, and will impact future funding to Subrecipient

- 4. Subrecipient will have fifteen (15) days following the expiration of the Contract to submit outstanding invoices for reimbursement of eligible costs incurred during the Contract period. After the fifteen (15) day period for submitting invoices has expired, County shall reallocate the remaining balance under this Contract for other program purposes and Subrecipient shall be ineligible for any further reimbursement D.
- D. Funds shall not be disbursed for any costs incurred prior to the certification by County and/or HUD of Certificate(s) of Insurance as further defined in Paragraph O "Insurance Requirements" of this Contract.
- E. Eligible costs related to services provided by Subrecipient must be incurred during the period beginning January 25, 2023. The Project shall be completed, and all funds provided through this Contract shall be expended on eligible Project activities through and including August 31, 2023.
- F. County and Participating Cities previously entered into a Cooperation Agreement effective July 1, 2022 as amended, in which both Parties agreed to cooperate in the undertaking, or assist in the undertaking, of community development and housing assistance activities.
- G. Metropolitan Cities with populations of over 50,000, are eligible to participate in the Community Planning and Development ("CPD") program funds directly from HUD and have opted to participate in the CPD programs through the County's Urban County Program as a metropolitan city.

- 42. **Modification of Budget:** Upon written approval of County, Subrecipient shall have the authority to transfer allocated program funds from one category of the overall program Budget to another category of the overall Budget. No such transfer may be made without the express prior written approval of County. A modification of the Budget may include the addition of any new Budget category.
- 43. **Annual Audit:** If Subrecipient expends Federal funds in a fiscal year which equal or exceed \$750,000 (seven hundred fifty thousand dollars) as specified in 2 CFR Part 200.500- Subpart F-Audit Requirements, Subrecipient shall cause an audit to be prepared by a Certified Public Accountant ("CPA") who is a member in good standing with the American Institute of Certified Public Accountants ("AICPA") of the California Society of CPA's. The audit must be performed annually in accordance with Generally Accepted Auditing Standards ("GAAS") authorized by the AICPA and Federal laws and regulations governing the programs in which it participates.

Furthermore, County retains the right to require Subrecipient to submit similarly prepared audit at Subrecipient's expense even in instances when Subrecipient's expenditure is less than \$750,000. Subrecipient will be required to identify corrective action taken in response to any findings identified by CPA related to their funded activity or program.

Subrecipient will ensure an annual financial audit is performed in compliance with the Federal Single Audit Act and will submit two (2) copies of such audit report, including a copy of the management letter, to County within six (6) months of the end of each Contract year in which Subrecipient has received federal funding (i.e., July 1 – June 30). Failure to meet this requirement may result in County denying reimbursement of funds to Subrecipient, as well as future funding qualification. Subrecipients, which are exempt from statutory audit requirements, shall maintain records, which are available for review by County or Federal officials. Subrecipient acknowledges that any and all "Financial Statements" submitted to County pursuant to this Contract become public records and are subject to public inspection pursuant to the California Public Records Act (Section 6250 et seq. of the California Government).

44. **UEI and D-U-N-S Numbers and Related Information:** UEI and D-U-N-S Numbers: A unique, non-indicative 12-and 9 digit identifiers issued and maintained by SAM.gov and the Dun & Bradstreet (D&B) that verifies the existence of a business entity. The UEI and D-U-N-S Numbers are needed to coordinate with the System for Award Management (SAM) that combines federal procurement systems and the Catalog of Federal Domestic Assistance into one new system. https://www.SAM.gov

The UEI and D-U-N-S Numbers must be provided to County prior to the execution of this Contract. Subrecipient shall ensure all UEI and D-U-N-S information is up to date and the UEI and D-U-N-S Numbers status is "active," prior to execution of this Contract. If County cannot access the Subrecipient's UEI and D-U-N-S information related to this federal sub award on the Federal Funding Accountability and Transparency Act Sub Award Reporting System (SAM.GOV) due to errors in the Subrecipient's data entry for its UEI and D-U-N-S Numbers, the Subrecipient must immediately update the information as required.

If County cannot access the Subrecipient's UEI and D-U-N-S information related to this federal sub award on the Federal Funding Accounting and Transparency Act Sub Award Reporting System (SAM.GOV) due to errors in the Subrecipient's data entry for its UEI and D-U-N-S Numbers, the Subrecipient must immediately update the information as required.

The County reserves the right to verify and validate any information prior to contract award and during the entire term of the Contract.

45. **Program Income:**

- A. Subrecipient shall comply with regulations, as well as all applicable State or County regulations concerning the reporting and payment procedures for program income.
- B. Definition: "Program Income" means, as provided by 24 CFR § 570.504, gross income received by the Subrecipient directly generated by a grant supported activity, or earned only as a result of the grant agreement during the grant period.
- C. Use. The Subrecipient shall use all income received from said funds only for the same purposes for which said funds may be expended pursuant to the terms and conditions of this Contract.
- D. All Program Income accrued shall be returned to County on a quarterly basis prior to Subrecipient receiving any reimbursement from grant funds provided under this Contract.
- E. Subrecipient shall provide information of the receipt of Program Income by Subrecipient related to this Contract on all GPR Information Forms submitted with requests for reimbursement.
- F. Subrecipient shall complete and submit a Year-End Program Income letter, indicating amount of Program Income and include any reimbursement remittance necessitated therein, by July 15, after the close of the Contract fiscal year.

46. Performance:

- A. Subrecipient shall provide the oversight, administration, and project management necessary to accomplish all contracted activities in a timely manner. Subrecipient also agrees to comply with all applicable Federal, State, and local laws and regulations governing the funds provided under this Contract.
- B. Subrecipient shall comply with all applicable HUD regulations, as described in Paragraph 49 "Federal Administrative and Related Requirements" of this Contract, concerning administrative requirements and maintain records as to services provided and total number of persons served through the project, including but not limited to, population-served analysis (i.e., extremely-low income persons, very-low income persons, and low-income persons as defined

- by HUD). Such information shall be available for periodic monitoring by representatives of County or HUD and shall be submitted by Subrecipient in report form to County by dates specified by County.
- C. The following "Performance Threshold" criteria shall be used to assess the level of performance of the Subrecipient, including Attachment A Scope of Services, attached hereto and incorporated herein by reference. Furthermore, the criteria will be considered by OC Community Resources when determining future funding. In order to be considered in compliance with the performance threshold criteria, the Subrecipient must, on or before the required milestone date, submit to OC Community Resources a request for reimbursement which demonstrates that Subrecipient has expended funds and met their proposed accomplishment goals at the required levels, unless exempted in writing by the County.
- D. Subrecipient shall complete and submit a Year End GPR Information Form by September 15, 2023, after the close of the Contract fiscal year.
- E. Should the activity being funded through this Contract be completed, cancelled or terminated prior to the termination date set forth herein in Paragraph 2 "Term of Contract," or if funds allocated through this Contract are fully expended, prior to end of Contract term, Subrecipient must continue to serve its clients for the entire term of this Contract. Subrecipient shall complete and submit a Mid-Year and Year End GPR Information Form at the time of the completion, cancellation or termination.
- F. Subrecipient shall complete and submit a GPR Information Form in support of all requests for reimbursement. Said GPR Information Form shall consist of a cumulative report of project related accomplishments as set forth in Attachment A Scope of Services, for the subject quarter. If at any time during the term of this Contract Subrecipient has no activity occuring during any quarter, Subrecipient shall prepare and submit to County a Quarterly GPR Information Form, regardless of actual activity.
- G. Subrecipient acknowledges that the GPR Information Form is a monitoring tool that will be reviewed and evaluated to determine Subrecipient's level of performance relative to this Contract.
- H. Subrecipient shall submit all requested data necessary to complete the Consolidated Annual Performance and Evaluation Report (CAPER), and monitor program accountability and progress in accordance with HUD requirements, in the format and at the time designated by County.
- I. Readiness for Housing Rehabilitation and Public Facilities & Improvements Projects:
 - Subrecipient shall be required to demonstrate to County its readiness to immediately initiate its Project upon execution of this Contract by providing to the County documentation including, but not limited to, the following: Board or Council Minutes/Resolution; Awarded bid documents with timeline requirements; and, executed Architect and Engineer (hereafter referred to as "A&E") contracts

with specific project timelines consistent with funding. By July 30 of Contract term, Subrecipient shall provide County a Project Readiness Checklist incorporating the status of all Project-phasing milestones. In the case of milestones not yet reached, Subrecipient shall provide projected target dates for when said milestones would be met. The Project Readiness Checklist shall clearly demonstrate that Subrecipient will meet the "Minimum Required Expenditure Thresholds" as set forth in this Paragraph 47.C. Subrecipient acknowledges that said Project Readiness Checklist may be considered to evaluate the performance of the Subrecipient.

47. Performance Monitoring:

- A. Performance Monitoring of Subrecipient by County, State of California and/or HUD shall consist of requested and/or required written reporting, as well as onsite monitoring by County, State of California or HUD representatives.
- B. County shall periodically evaluate Subrecipient's progress in complying with the terms of this Contract. Subrecipient shall cooperate fully during such monitoring. County shall report the findings of each monitoring to Subrecipient.
- C. County shall monitor the performance of Subrecipient against the goals, outcomes, milestones and performance standards required herein. Substandard performance, as determined by County, will constitute non-compliance with this Contract for which County may immediately terminate the Contract. If action to correct such substandard performance is not taken by Subrecipient within the time period specified by County, payment(s) will be denied in accordance with the provisions contained in this Paragraph 47 of this Contract.
- D. HUD in accordance with 24 CFR Part 570 Subpart O, 570.902, will annually review the performance of County to determine whether County has carried out its Community Development Block Grant (CDBG) assisted activities in a timely manner and has significantly disbursed CDBG funds and met the mandated "1.5 ratio" threshold. Subrecipient is responsible to ensure timely drawdown of funds.
- 48. Federal Administrative and Related Requirements: Subrecipient must comply with all federal requirements as it pertains for 24 CFR Parts 91 and 570. Subrecipient acknowledges that administration of its operation and services are subject to the requirements as established in 2 CFR Part 200, et al. Subrecipient shall procure all materials, property, or services in accordance with the requirements of 2 CFR § 200.318-326.

A. Financial Management:

1. <u>Accounting Standards</u>

Subrecipient agrees to comply with 24 CFR 84.21-28 and agrees to adhere to the accounting principles and procedures required therein, utilize adequate internal controls, and maintain necessary source documentation for all costs incurred.

2. <u>Cost Principles:</u>

The Subrecipient shall administer its program in conformance with 2 CFR Part 200, et al; (and if Subrecipient is a governmental or quasi-governmental agency, the applicable sections of 24 CFR 85, "Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments,") as applicable. These principles shall be applied for all costs incurred whether charged on a direct or indirect basis.

B. Documentation and Record Keeping

1. Records to be Maintained

Subrecipient shall maintain all records required by the Federal regulations specified in 24 CFR 570.506 that are pertinent to the activities to be funded under this Contract. Such records shall include, but not be limited to:

- a. Records providing a full description of each activity undertaken;
- b. Records demonstrating that each activity undertaken meets the one of the National Objectives of the CDBG program;
- c. Records required to determine the eligibility of activities;
- Records required to document the acquisition, improvement, use, or disposition of real property acquired or improved with CDBG assistance;
- e. Records documenting compliance with the fair housing and equal opportunity components of the CDBG program;
- f. Financial records as required by federal regulations 24 CFR 570.502, and 24 CFR 84.21-28; and
- g. Other records necessary to document compliance with Subpart K of 23 CFR.

2. Retention

Subrecipient shall retain all financial records, supporting documents, statistical records, and all other records pertinent to this Contract for a period of five (5) years. The retention period begins on the date of the submission of the County's annual performance and evaluation report to HUD in which the activities assisted under the Contract are reported on for the final time. Notwithstanding the above, if there is litigation, claims, audits, negotiations or other actions that involve any of the records cited and that have started before the expiration of the five-year period, then such records must be retained until completion of the actions and resolution of all issues, or the expiration of the five-year period, whichever occurs later.

Client Data

a. Subrecipient shall maintain client data demonstrating client eligibility for services provided for a period of five (5) years after the termination of all activities funded under this Contract, or after the

resolution of all Federal audit finding, whichever occurs later. Such data shall be consistent and include, but not limited to, client name, address, verifiable income level (as documented by income tax returns, employee payroll records, retirement statements, etc. or other third party documentation acceptable to County, for determining eligibility), and description of service provided. Such information shall be made available to HUD representatives, County monitors, or their designees, for review upon request.

b. Subrecipient shall develop and implement procedures to ensure the confidentiality of records pertaining to any individual provided family violence prevention or treatment services under any project assisted under the subject program, including protection against the release of the address or location of any family violence shelter project, except with the written authorization of the person responsible for the operation of that shelter.

4. Disclosure

Subrecipient shall maintain client data demonstrating client eligibility for services provided. Such data shall include, but not be limited to, client name, address, income level or other basis for determining eligibility, and description of service provided. Such information shall be made available to County monitors or their designees for review upon request.

5. Close-Outs

Subrecipient's obligation to County shall not end until all close-out requirements are completed. Activities during this close-out period shall be completed in accordance with federal and State regulations and shall include, but are not limited to: making final payments; submitting final invoice(s), report(s), in accordance with the requirements of Paragraph 49, and documentation; disposing of program assets (including the return to County of all unused materials and equipment); remitting any program income balances and accounts receivable to County, and determining the custodianship of records. Notwithstanding the foregoing, the terms of this Contract shall remain in effect during any period that the Subrecipient has control over CDBG funds, including Program Income.

C. <u>Personnel & Participation Conditions</u>

1. Civil Rights

Compliance

Subrecipient agrees to comply with California Civil Rights Act Ordinances and Title VI of the Civil Rights Act of 1964, as amended, Title VIII of the Civil Rights Act of 1968, as amended, Section 104(b) and Section 109 of Title I of the Housing and Community Development Act of 1974, as amended, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, Executive Order 11063, and with Executive Order 11246, as amended by Executive Orders 11375, 11478, 12107 and 12086.

2. Nondiscrimination in Employment and Contracting

Subrecipient agrees to comply with the non-discrimination in employment and contracting opportunities laws, regulations, and executive orders referenced in 24 CFR 570.607, as revised by Executive Order 13279, including 24 CFR Part 8, 24 CFR 570.602 and Section 504 of Rehabilitation Act of 1973, Americans with Disabilities Act of 1990, Executive Order 11063. The applicable non-discrimination provisions in Section 109 of the Housing and Community Development Act (HCDA) are still applicable.

3. Affirmative Action:

Subrecipient agrees that it shall be committed to carry out an Affirmative Action Program that encompasses that principals provided in President's Executive Order 11246, as revised on January 4, 2002.

4. Americans with Disabilities Act:

Subrecipient agrees to comply with Section 504 of the Rehabilitation Act of 1973 as amended; Title VI and VII of the Civil Rights Act of 1964 as amended; Americans with Disabilities Act, 42 USC 12101; California Code of Regulations, Title 2, Title 22: California Government Code, Sections 11135, et seq; and other federal and state laws and executive orders prohibit discrimination. All programs, activities, employment opportunities, and services must be made available to all persons, including persons with disabilities.

5. **Drug-Free Workplace**:

The Subrecipient hereby certifies compliance with Government Code Section 8355 in matters relating to providing a drug-free workplace as set forth in Exhibit 2, attached hereto and incorporated herein by reference. The Subrecipient will:

- a. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations, as required by Government Code Section 8355(a).
- b. Establish a drug-free awareness program as required by Government Code Section 8355(b) to inform employees about all of the following:
 - i. The dangers of drug abuse in the workplace;
 - ii. The Subrecipient's policy of maintaining a drug free workplace;
 - iii. Any available counseling, rehabilitation, and employee assistance programs; and
 - iv. Penalties that may be imposed upon employees for drug abuse violations.
- c. Provide as required by Government Code Section 8355(c) that every employee who works under this Contract:
 - i. Will receive a copy of the company's drug-free policy statement; and

ii. Will agree to abide by the terms of the company's statement as a condition of employment under this Contract.

Failure to comply with these requirements may result in suspension of payments under the contract or termination of the contract or both, and the Subrecipient may be ineligible for award of any future County contracts if the County determines that any of the following has occurred:

- iii. The Subrecipient has made false certification, or
- iv. The Subrecipient violates the certification by failing to carry out the requirements as noted above.

6. Anti-Lobbying:

Subrecipient certifies that it will comply with federal law (31 U.S.C. 1352) and regulations found at 24 CFR Part 87, which provide that:

- a. No federal appropriated funds will be paid, by or on behalf of it, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any Federal loan, the entering into of any Cooperative Agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or Cooperative Agreement; and
- b. Subrecipient shall include subject anti-lobbying certification in award documents for all sub-Subrecipients at all tiers (including sub-subcontracts, sub-subgrants, and contract under grants, loans, and Cooperative Agreements) and that all sub-Subrecipients shall certify and disclose accordingly.

7. Employment Restrictions:

a. **Prohibited Activity:**

Subrecipient is prohibited from using funds provided herein, or personnel employed in the administration of the program, for: political activities, sectarian or religious activities, lobbying, political patronage, and nepotism activities.

b. OSHA:

Where employees are engaged in activities not covered under the Occupational Safety and Health Act of 1970, they shall not be required or permitted to work, be trained, or receive services in buildings or surroundings or under working conditions which are unsanitary, hazardous or dangerous to the participants' health or safety.

c. **Employee Rights**

. Federal Minimum Wage

Subrecipient must follow the Fair Labor Standards Act (FLSA), as it currently exists and it may be amended, which sets basic minimum wage and overtime pay standards. These standards are enforced by The United States Department of Wage and Hour Division under Department's

Wage and Hour Division. The Federal minimum wage provisions are contained in the FLSA. Many states also have minimum wage laws. In cases where an employee is subject to both state and federal minimum wage laws, the employee is entitled to the higher minimum wage.

d. California Minimum Wage

Subrecipient must follow the California enacted legislation signed by the Governor of California, raising the minimum wage for all industries (MW-2007). (AB 1835, CH230, Stats of 2006, adding sections 1182.12 and 1182.13 to the California Labor Code.) Pursuant to its authority under Labor Code section 1182.13, the Department of Industrial Relations amends and republishes Sections, 1, 2, 3, and 5 of the General Minimum Wage Order. MW-2001, Section 4, Separability, has not been changed. Consistent with this enactment, amendments are made to the minimum wage, and the meals and lodging credits sections of all of the IWC's industry and occupation orders. This summary must be made available to employees in accordance with the IWC's wage orders. Copies of the full text of the amended wage may be obtained by ordering www.dir.ca.gov/WP.asp or by contacting your local Division of Labor Standards Enforcement office.

e. Hatch Act:

Subrecipient agrees that no funds provided, nor personnel employed under this Contract, shall be in any way or to any extent engaged in the conduct of political activities in violation of the Hatch Act, 5 U.S.C. Section 1501 et seq. and Chapter 15 of Title V of the U.S.C.

f. Religious Organization/Activities:

In accordance with 24 CFR 570.200(j), Subrecipient shall not discriminate against faith-based organizations in administering its federal HUD activities. Subrecipient agrees that funds provided under this Contract will not be utilized for inherently religious activities prohibited by 24 CFR 570.200(j), such as worship, religious instruction, or proselytization or to promote religious interest, or for the benefit of a religious organization.

8. Labor Standards

- a. Subrecipient agrees to contact County no less than fourteen (14) days prior to the Pre-Construction Meeting date to seek consultation regarding application of requirements per federal labor standards regulations or Davis-Bacon related Acts.
- b. Subrecipient will comply with Davis-Bacon Act and/or State Prevailing Wage requirements, when applicable.
- Subrecipient agrees to comply with all applicable requirements of the Secretary of Labor in accordance with the Davis-Bacon Act, the provisions of Contract Work Hours and Safety Standards Act, the

Copeland "Anti-Kickback" Act (40 U.S.C. 276, 327-333), and all other applicable Federal, State and local laws and regulations pertaining to labor standards. Subrecipient shall maintain all applicable documentation, which demonstrates compliance with hour and wage requirements of this part. Such documentation shall be made available to County for review upon request.

- d. Subrecipient agrees that, except with respect to the rehabilitation or construction of residential property designed for residential use for less than eight (8) units, all Subrecipients engaged in contracts of \$2,000.00 or more for construction, renovation or repair of any building or work financed in whole or in part with assistance provided under this Contract, shall comply with all applicable federal requirements including Department of Labor regulations, under 29 CFR, Parts 3, 1, 5, 7 and 1926 governing the payment of wages and ratio of apprentices and trainees to journeymen. Nothing hereunder is intended to relieve
- e. Subrecipient of its obligation, if any, to require payment of the higher rate under state or local laws Subrecipient shall insert provisions meeting the requirements of this Paragraph in all such Contracts.

In case where the Davis-Bacon Act applies, Subrecipient agrees to submit the Construction Bid Package for this project to County for modification, Subrecipient shall construct project in accordance with the approved Construction Bid Package.

9. California Labor Code Compliance

- a. Prevailing Wage laws apply, Subrecipient hereby agrees to pay, or cause its subcontractors to pay, Prevailing Wage rates at all times for all construction, improvements, or modifications to be completed for County under this Contract. Subrecipient herein agrees that Subrecipient shall post, or cause to be posted, a copy of the most current, applicable Prevailing Wage rates at the site where the construction, improvements, or modifications are performed.
- b. Payroll Records

Subrecipient agrees that:

Certified copies of all payroll records for this project shall be required pursuant to the provisions of California Labor Code "Section 1776". The reporting format and words of certification shall be as indicated in Title 8 of the California Code of Regulations, Section 16401.

Certified copies of the payroll records of all subcontractors working on this project are required. It shall be the responsibility of the prime contractor to ensure subcontractor compliance.

Certified copies of all payroll records shall be submitted on a weekly basis to County through the duration of this Contract.

Subrecipient acknowledges that failure to comply with Section 1776 may result in a forfeiture of one hundred dollars (\$100) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated,

and it should be recognized that a contractor or subcontractor, or agent or representative thereof who neglects to comply is guilty of a misdemeanor pursuant to California Labor Code Section 1777.

10. **Economic Opportunities**

Compliance

Subrecipient agrees to abide by the provisions of OMB Circulars 102 and 110, as applicable, 24 CFR 570.611 with respect to conflicts of interest, and covenants that it presently has no financial interest and shall not acquire any financial interest, direct or indirect, which would conflict in any manner or degree with the performance of services required under this Contract.

Subrecipient further covenants that in the performance of this Contract no person having such a financial interest shall be employed or retained by Subrecipient hereunder. These conflict of interest provisions apply to any person who is an employee, agent, consultant, officer, or elected official or appointed official of County or Subrecipient, or any designated public agencies which are receiving funds under the CDBG Entitlement Program.

This Contract is subject to the requirements of 12 USC 1701u, the HUD regulations issued pursuant thereto at 24 CFR, 135.1 et seq., and any applicable rules and orders of HUD issued Federal financial assistance shall be conditioned upon compliance with 12 USC 1701u. Failure to fulfill these requirements shall subject Subrecipient and any sub-Subrecipients, their successors and assigns, to those remedies specified herein. Subrecipient certifies and agrees that no conflict exists which would prevent compliance with requirements.

The Subrecipient agrees to abide by 24 CFR, 135.38, below and will insert the following clause in any subcontracts executed with third parties for work covered by this Contract:

- a. The work to be performed under this Contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended (12 USC §1701u) ("Section 3"). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted developments covered by Section 3 shall, to the greatest extent feasible, be directed to low- and very low-income persons, including persons who are recipients of HUD assistance for housing, with a preference for both targeted workers living in the service area or neighborhood of the Development and YouthBuild participants, as defined at 24 CFR Part 75 ("Section 3 Regulations").
- b. The Parties agree to comply with HUD's Regulations in 24 CFR, Part 75 which implement Section 3. As evidenced by their execution

- of this Contract, the Parties certify that they are under no contractual or other impediments that would prevent them from complying with the Section 3 Regulations.
- The Sub-recipient, contractor, and subcontractor agrees to send to c. each labor organization or representative of workers with which the Sub-recipient, contractor, and subcontractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the Sub-recipient, contractor, and subcontractor's commitments under this section of the Contract and will post copies of the notice in conspicuous places at the worksite where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference and shall set forth the following: (i) minimum number and job titles subject to hire, (ii) availability of apprenticeship and training positions, (iii) qualifications for each, (iv) name and location of the person(s) taking applications for each of the positions, and (v) the anticipated date the work shall begin.
- d. The Sub-recipient, contractor, and subcontractor agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in Section 3 Regulations and agrees to take appropriate action, as provided in an applicable provision of the subcontractor in this Section 3 clause, upon a finding that the subcontractor violates the regulations in Section 3 Regulations. The Sub-recipient, contractor, and subcontractor will not subcontract with any subcontractor where the Sub-recipient, contractor, and subcontractor has notice or knowledge that the subcontractor has been found in violation of the regulations 24 CFR part 75.
- e. The Sub-recipient, contractor, and subcontractor will certify that any vacant employment positions, including training positions, that are filled (1) after a contractor is selected but before the Contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR part 75 require employment opportunities to be directed, were not filled to circumvent the Sub-recipient, contractor, and subcontractor's obligations under 24 CFR part 75
- f. Noncompliance with HUD's regulations in 24 CFR part 75 may result in sanctions, termination of this Contract for default, and debarment or suspension from future HUD assisted contracts.

11. Environmental Conditions:

Subrecipient shall comply with HUD Environmental Review under HUD regulations at 24 CFR 58 et seq., which implement the National

Environmental Policy Act (NEPA); and, the California Environmental Quality Act (CEQA). No costs shall be incurred and no funds shall be disbursed prior to certification by County and/or HUD of environmental compliance.

Subrecipient shall incur no costs for any project-related activity defined in Subrecipient Scope of Services and County shall not disburse funds prior to certification by County and/or HUD for environmental compliance.

Subrecipient shall provide requested material to County for the Environmental Review process required by applicable regulations.

a. Air and Water:

Subrecipient agrees to comply with the following regulations in so far as they apply to the performance of this Contract:

Clean Air Act, 42 U.S.C., 1857, et seq.

Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251, et seq.

Environmental Protection Agency (EPA) regulations pursuant to 40 CFR 50 and 40 CFR 58.

b. Flood Disaster Protection:

Subrecipient agrees to comply with the requirements of the Flood Disaster Protection Act of 1973, including as applicable any regulations set forth in 24 CFR 55, (implementing Executive Order 11988) in regard to the sale, lease or other transfer of land acquired, cleared, or improved under the terms of this Contract, as it may apply to the provisions of this Contract.

c. Lead-Based Paint:

Subrecipient agrees that any construction or rehabilitation of residential structures with assistance provided under this Contract shall be subject to HUD Lead-Based Paint Regulations at 24 CFR 570.608, and 24 CFR 35, particularly, 24 CFR 35.100 through 35.175. Such regulations pertain to all HUD-assisted housing and require that all owners, prospective owners, and tenants or properties constructed prior to 1978 be properly notified with the "Protect Your Family From Lead In Your Home" publication, found at http://www.epa.gov/lead that such properties may include lead-based paint.

d. Historic Preservation:

Subrecipient agrees to comply with the Historic Preservation requirements set forth in the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470) and the procedures set forth in 36 CFR 800, Protection of Historic Properties, insofar as they apply to the performance of this Contract.

In general, this requires concurrence from the State Historic Preservation Officer for all rehabilitation and demolition of historic properties that are fifty years old or older or that are included on a Federal, State, or local historic property list.

e. Energy Efficiency Standards:

Subrecipient agrees to comply with the California Energy Commission Assembly Bill 970, Title 24, Part I of the California

Code of Regulations (AB970: Building Efficiency Energy Standards), in regard to construction and property development, when applicable.

f. Modifications/Transfers of Real Property:

Any proposed modification or change in use of real property acquired or improved, in whole or in part, by CDBG funds from the use planned at the time of the acquisition or improvement, including disposition, is prohibited.

- i. Subrecipient shall ensure that any real property under Subrecipient's control that was acquired or improved in whole or in part with CDBG funds in excess of \$25,000 is either:
 - i.i. Used to meet one of the national objectives contained in 24 CFR 570.208 for a period not less than five years, or for such period of time as determined to be appropriate by County, after expiration of the Contract and close-out of Subrecipient's participation in the CDBG Program, or, until five years after the close-out of the grant from which the assistance to the property, whichever occurs first; or,
 - i.ii. Disposed of in a manner which results in County being reimbursed in an amount equal to the current fair market value of the property less any portion thereof attributable to expenditures of non-CDBG funds for acquisition of, or improvement to, the property. Such reimbursement is not required after the period of time specified in accordance with this Paragraph 49.

g. Property Records:

Subrecipient shall maintain real property inventory records, which clearly identify properties purchased, improved, or sold. Properties retained shall continue to meet eligibility criteria, rental limitations, health, safety and building codes, etc., and shall conform to federal and State regulations.

h. Equipment:

Subrecipient shall use, manage and dispose of equipment in accordance with federal and State regulations.

i. Subcontracts:

- Subrecipient shall submit all subcontract agreements to County for review and consent prior to entering into such subcontracts. For construction subcontracts, Subrecipient shall submit the Construction Bid Package to County for review and written approval by Director or designee prior to advertising for bids and award for the construction contract. Subrecipient shall construct Project in accordance with the Construction Bid Package, which Director approved, unless prior written approval is received from Director for modification thereof.
- ii. Subrecipient shall assume responsibility for all subcontracted services to assure Contract compliance.

- iii. Subrecipient shall cause all of the provisions of this Contract in entirety to be included in and made a part of any subcontract executed in the performance of this Contract.
- iv. Subrecipient shall monitor all subcontracted services on a quarterly basis to assure Contract compliance. Results of said monitoring efforts shall be summarized in written form, and supported with documented evidence of follow-up actions(s) to correct any area(s) of Contract noncompliance. Documentation shall be made available for periodic monitoring by representatives of County and/or HUD.

j. Fair Housing:

Subrecipient shall affirmatively further fair housing in accordance with 24 CFR 570. Under section 808(e)(5) of the Fair Housing Act, HUD has a statutory duty to affirmatively further fair housing. HUD requires the same of its funded sub-recipients. The Subrecipient has a duty to affirmatively further fair housing opportunities for classes protected under the Fair Housing Act, along with all applicable State & Federal requirements.

k. Grantor Recognition:

Subrecipient shall insure recognition of the role of the County in providing services through this Contract. All activities, facilities and items utilized pursuant to this Contract shall be prominently labeled as to funding source. In addition, Subrecipient will include a reference to the support provided herein in all publications made possible with funds made available under this Contract. Subrecipient will retain documentation of such recognition, which shall be available for periodic monitoring by representatives of County or HUD.

I. Rehabilitation Act:

Subrecipient agrees to comply with any federal regulations issued pursuant to compliance with Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. 706) which prohibits discrimination against the handicapped in any federally assisted program. County shall provide Subrecipient with any guidelines necessary for compliance with that portion of the regulations in force during the term of this Contract.

49. **Definitions:**

For the purposes of this Contract the following definitions shall apply:

- A. OC Community Resources (OCCR): Designated as the Lead for the development and implementation of County of Orange Urban County Program's Consolidated Plan.
- B. Director: Director of OC Community Resources, or designee.

- C. Grantee Performance Report (GPR) Information Form: A Program activity data document provided by County to Subrecipient used to monitor, track and report the performance of Subrecipient.
- D. OC Community Resources Contract Reimbursement Policy: A County document setting policies regarding types of documentation required to support the costs incurred and paid (including but not limited to copies of paid invoices, certified payroll registers, bank statements, etc.)
- E. Project: Any site or sites, including buildings, and/or activities assisted with federal program funds.
- F. OMB: Federal Office of Management and Budget.
- G. CAPER: Consolidated Annual Performance and Evaluation Report. An annual published report to HUD and the public on all housing-related activities.
- H. CDBG: 24 CFR Part 570 Community Development Block Grant the CDBG regulations set forth eligible activities and the national objectives that each activity must meet. The Catalog of Federal Domestic Assistance (CFDA) # 14.218 distributes formula grants (CDBG) to develop viable urban communities by providing decent housing, a suitable living environment, and expanding economic opportunities, principally for persons of low and moderate income.
- Continuum of Care: An Orange County group composed of representatives of relevant organizations that serve homeless and formerly homeless persons that are organized to plan for and provide, as necessary, a system of services to address the various needs of homeless persons and persons at risk of homelessness.
- J. Homeless Management Information System (HMIS): The information system designated by the Continuum of Care to comply with HUD's data collection, management, and reporting standards and used to collect client-level data and data on the provision of housing and services to homeless individuals and families and persons at risk of homelessness. (24 CFR Part 580)
- K. Equipment: Tangible, non-expendable, personal property having a useful life of more than one year and an acquisition cost of \$5,000 or more per unit.
- L. Substantial Amendment: The following criteria will be used by the County if any one criteria applies, a substantial amendment will be required:
 - i. A new activity not previously listed and described in the Consolidated Plan/Annual Action Plan;
 - ii. When a proposal is made to amend the description of an existing activity in such a way that the newly described purpose, scope, or beneficiaries differ significantly from the original activity's purpose, scope, or beneficiaries; and/or

- iii. An increase in the amount of Federal Community Planning Development and/or local funds allocated to an existing activity when the following apply:
 - a. An increase in funding for a public service activity in an amount that is consistent with County policy; or
 - b. An increase in the funding for public facility improvements/housing rehabilitation in an amount that is consistent with County policy.
- M. Construction Bid Package: A package of bidding documents which includes the proposal, bidding instructions, Contract documents, detailed estimated costs, and plans and specifications for a construction project, all prepared in accordance with applicable Federal regulations.
- N. Program Administration: An activity relating to the general management, oversight and coordination of community development programs. Costs directly related to carrying out eligible activities are not included.

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Signature Page

IN WITNESS WHEREOF, the Parties hereto certify that they have read and understand all the terms and conditions contained herein and have hereby cause this Contract to be executed.

*City of Stanton	
By: tannal Shin-teydorn ACSCD3D3011E402	By:
Name: Hannah Shin-Heydorn	Name:
Title: City Manager	Title:
Dated:	Dated:
signature by the Chairman of the Board,	signature requirements are as follows: 1) One the President or any Vice President; and 2) One ecretary, the Chief Financial Officer or an Assistant
For Subrecipients that are not corporation Subrecipient to a contract, must sign on one	ons, the person who has authority to bind the e of the lines above.
***********	******
COUNTY OF ORANGE A Political Subdivision of the State of Californ COUNTY AUTHORIZED SIGNATURE:	nia
Nina Campmas	Contract Administrator
Print Name	Title
Mina Campmas	1/24/2023
Signature APPROVED AS TO FORM DEPUTY COUNTY COUNSEL	Dated
By: John Lumand 74000D32EE65457 Deputy County Counsel	Dated: 1/17/2023

Item: 9J

Click here to return to the agenda.

CITY OF STANTON

REPORT TO CITY COUNCIL

TO: Honorable Mayor and Members of the City Council

DATE: July 9, 2024

SUBJECT: PROFESSIONAL SERVICES AGREEMENT WITH MATRIX AUDIO

VISUAL DESIGNS, INC. FOR COUNCIL CHAMBER AUDIO SYSTEM

RENOVATION SERVICES

REPORT IN BRIEF:

The City Council will consider entering into a Professional Services Agreement with Matrix Audio Visual Designs, Inc. (Matrix) for the Council Chamber Audio System Renovation project.

RECOMMENDED ACTION:

- 1. City Council find that this item is not subject to California Environmental Quality Act ("CEQA") pursuant to Sections 15378(b)(5)(Organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment); and
- 2. Authorize the City Manager to enter into a Professional Services Agreement between the City and Matrix Audio Visual Designs, Inc. for audio system renovation services in the Council Chamber in the amount of \$78,184.30 for a term of one year with two additional one-year extensions; and
- 3. Authorize the City Manager to approve change orders as needed and determined by City staff, for any contingencies up to \$5,000, increasing the total authorized compensation for this agreement to a potential maximums of \$83,184.30.

BACKGROUND:

After receiving Council direction, staff initiated a process to explore upgrading and renovating the audio system in the City's Council Chambers. The existing audio system is outdated and was last updated in December 2013. The system fails to provide satisfactory performance in the following three categories:

- Audio Input. The current system lacks the strength to receive sound from both the hard-wired and wireless microphones in order to sufficiently capture live meeting audio by the City's recording system. Speakers have to position their hold microphones very close to their face (or lean towards the dais microphones) in order for audio to be reliably picked up.
- Speaker Output. The City's only functional control is to either increase or lower the volume of the speaker system. This limited functional control results in the sound pickup sensitivity becoming either too low (i.e., speech is inaudible or barely audible) or too high (i.e., amplified, high-frequency feedback is projected throughout the speaker system).
- Connectivity. The current system is incompatible with key external devices, including accessibility technology and video conferencing equipment.
 Communication with meeting participants via Zoom utilizes the microphone and speakers of the DTEN digital whiteboard, which is not ideal.

ANALYSIS/JUSTIFICATION:

On February 29, 2024, the City issued a Request for Proposals (RFP) for the Council Chamber Audio System Renovation project (Attachment A) and defined the desired scope of the project, posted the documents on the City's website, and conducted a mandatory walk-through on March 14, 2024, for all interested vendors to review the project. Staff provided the following basic specifications of the Council Chambers as follows:

- Council Chamber Dimensions
 - o Floor space: approx. 1,570 square feet (30.6 feet wide by 51.2 feet long)
 - o Ceiling height: approx. 28-30 feet
- Standard/Comfortable Seating Arrangement
 - 36 audience attendees
 - o 8 members on the dais
 - o 6 department directors at two executive tables
 - 150 official room capacity
- Standard Microphone Count
 - 8 hard-wired gooseneck microphones along the dais—seven of which are input-activated (i.e., turning on only when speech is detected within its "bubble")
 - 1 wireless, handheld microphone for presentations and public comment at a podium facing the dais—roughly in the center of the council chambers
 - 2 wireless, handheld microphones—one placed at each department directors executive table
- The well space of the council chambers is bounded by the podium, the dais, and the two department directors executive tables that face each other.

Seven (7) vendors attended the walk-through. After receiving clarifying questions from interested proposers, the City released Addendum 1 on April 1, 2024, and Addendum 2 to the RFP on April 2, 2024 (Attachment B). Final responses were due on April 5, 2024.

The City received 5 proposals in response to the City's RFP. A three-member review committee was formed consisting of the City Manager, Director of Public Works, and City Clerk. The City's Human Resources Management Analyst served as the RFP coordinator. The committee reviewed, and evaluated each on the following factors:

Criteria	Weight
Approach to providing services, including the methods	
and techniques to be utilized for assessment and ongoing	
management, and customer service	25%
Cost of the services to reflect value and fiscal prudence	25%
Demonstrated record of success on similar work	
performed for other municipalities or enterprises	25%
Qualifications and ability of the firm in regard to providing	
the services outlined in the "Scope of Services"	25%

The Council Chamber Audio System Renovation scope of services includes services that can be reasonably expected to design, develop, and install an upgraded audio solution that provides ease of use, sound quality, audio recording and archiving, efficient and effective setup, and accessibility elements.

After reviewing proposals, conducting interviews with all five proposers, and verifying references, staff determined that Matrix was the best-qualified firm to provide professional services to meet the City's needs. References were checked with the Cities of Montclair, Fontana, and Hesperia; the Town of Apple Valley; and the Fontana Unified School District. Each firm's total scores were as follows, shown in alphabetical order below.

Company	Score
Avidex	121.5
Eidim	91.25
Matrix Audio Visual Designs, Inc.	128.75
Vidiflo	97.5
Western Audio Visual & Security	121.25

The cost of the project with Matrix is \$78,184.30. The initial one-year term of the contract is from July 10, 2024 to July 9, 2025.

FISCAL IMPACT:

The Fiscal Year 2024-25 Adopted Operating Budget includes \$85,000 for Council Chamber Audio Renovation services, sufficient funds to cover the cost of the proposed contract.

ENVIRONMENTAL IMPACT:

This item is not subject to California Environmental Quality Act ("CEQA") pursuant to Sections 15378(b)(5)(Organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment).

PUBLIC NOTIFICATION:

Public notification provided through the regular agenda process.

STRATEGIC PLAN OBJECTIVES:

Obj. No. 3: Promote a quality infrastructure.

Obj. No. 4: Ensure fiscal stability and efficiency in governance.

Prepared by: Sylvia Soong, Human Resources Management Analyst **Fiscal Impact Reviewed by:** Michelle Bannigan, Finance Director

Attachments:

A. RFP for Council Chamber Audio System Renovation

B. Professional Services Agreement with Matrix

Click here to return to the agenda.

REQUEST FOR PROPOSALS (RFP)

FOR

COUNCIL CHAMBER AUDIO SYSTEM RENOVATION



CITY OF STANTON

Administration Department 7800 Katella Avenue Stanton, CA 90680 (714) 379-9222 | StantonCA.gov

Approved for Advertisina:

HANNAH SHIN-HEYDORN

City Manager

HShinHeydorn@StantonCA.gov

(714) 890-4277

KEY RFP DATES (Subject to Change):

Issue Date:
Mandatory Site Visit:
Deadline for Questions:
Proposal Due Date:
Presentation/Interviews:

Thursday, February 29, 2024
Thursday, March 14, 2024, at 10:00 am PST
Friday, March 22, 2024, at 5:00 pm PST
Friday, April 5, 2024, at 5:00 pm PST
Early May 2024



I. GENERAL DESCRIPTION AND INTRODUCTION

The City of Stanton ("City") is requesting proposals from qualified firms to conduct a detailed inspection and assessment of the City's Council Chamber audio system, recommend renovations for sound quality and ADA compliance, and complete such renovations ("Council Chamber Audio System Renovation Services").

A Mandatory Site Visit event will be held at Stanton City Hall (7800 Katella Ave., Stanton, CA 90680) at 10:00 a.m. on Thursday, March 14th, 2024. City staff will provide access to the audio/visual equipment and explain the desired audio system functionality. Only firms with a technical representative in attendance for the Mandatory Site Visit are eligible to have their proposal reviewed.

All questions and/or inquiries regarding this RFP shall be directed to Jason Huynh, RFP Administrator, via email at JHuynh@StantonCA.gov by 5:00 p.m. on Friday, March 22nd, 2024. Responses to inquiries, if they significantly change or clarify the RFP requirements, will be forwarded via written (emailed) addenda to all proposers and posted publicly.

Proposals must conform to the requirements of this RFP, and proposals must be submitted via email to the RFP Administrator no later than **5:00 p.m. on Friday, April 5th, 2024**.

II. CITY AND PROJECT BACKGROUND

The City of Stanton's council chamber audio system was most recently updated in December 2013. In addition to hosting the meetings of the City Council and Commissions, the council chambers are also utilized occasionally for staff training sessions, staff meetings with developers, and large conferences. Although the council chambers are used on occasion for overflow meetings, the primary use of the space is for Council and Commission meetings which, on average, last between two and four hours. Diagrams and photos of the council chambers have been included as EXHIBIT A, "Council Chamber Images and Plans." (NOTE: The attached plans are to be used for reference only.)



The basic specifications of the council chambers are as follows:

- Council Chamber Dimensions
 - Floor space: approx. 1,570 square feet (30.6 feet wide by 51.2 feet long)
 - o Ceiling height: approx. 28-30 feet
- Standard/Comfortable Seating Arrangement
 - o 36 audience attendees
 - o 8 members on the dais
 - o 6 department directors at two executive tables
 - o 150 official room capacity
- Standard Microphone Count
 - 8 hard-wired gooseneck microphones along the dais—seven of which are input-activated (i.e., turning on only when speech is detected within its "bubble")
 - 1 wireless, handheld microphone for presentations and public comment at a podium facing the dais—roughly in the center of the council chambers
 - 2 wireless, handheld microphones—one placed at each department directors executive table
- The well space of the council chambers is bounded by the podium, the dais, and the two department directors executive tables that face each other.

The existing sound system in the council chambers consists of a ceiling-mounted Atlas Sound 8" coaxial 8-speaker system with 70.7V / 100V - 60W transformer and B Ω bypass. The existing sound system in the council chamber lobby consists of a ceiling-mounted Atlas Sound 8" coaxial 2-speaker system with 70.7V / 100V - 60W transformer and B Ω bypass, along with 2 additional Bose speakers. The volume level for each system is controlled by a 10-level attenuator knob/dial.

The City utilizes the Zoom Communications application on a DTEN ON interactive whiteboard to allow members of the public to virtually attend public meetings in the council chambers. The Zoom meetings are recorded and uploaded to the <u>City of Stanton YouTube channel</u>. A separate audio recorder, powered by an aging (Windows) PC laptop operating an outdated For the Record software application, is operated by the City Clerk during public



meetings; those .mp3 files are uploaded to the City's website under "<u>Agendas</u> & <u>Minutes</u>."

The existing sound system fails to provide satisfactory performance in three main respects:

- <u>Audio Input</u>. The current system lacks the strength to receive sound from both the hard-wired and wireless microphones in order to sufficiently capture live meeting audio by the City's recording system. Speakers have to position their hold microphones very close to their face (or lean towards the dais microphones) in order for audio to be reliably picked up.
- <u>Speaker Output</u>. The City's only functional control is to either increase or lower the volume of the speaker system. This limited functional control results in the sound pickup sensitivity becoming either too low (i.e., speech is inaudible or barely audible) or too high (i.e., amplified, high-frequency feedback is projected throughout the speaker system).
- <u>Connectivity</u>. The current system is incompatible with key external devices, including accessibility technology and video conferencing equipment. Communication with meeting participants via Zoom utilizes the microphone and speakers of the DTEN digital whiteboard, which is not ideal.

The City does not have documentation, schematics, or programming code pertaining to the original installation of the audio system. Contractors are required to familiarize themselves with the existing audio equipment through the Mandatory Site Visit.

III. SCOPE OF SERVICES

The City is seeking qualified contractors with a minimum of three (3) years of experience providing Council Chamber Audio System Renovation Services similar to those requested in this Scope of Services. Contractors with experience and current contracts with public agencies, particularly in Orange County, are highly desirable. Contractor shall be prepared to furnish all labor, including travel and per diem, materials, non-consumable supplies, equipment, transportation, and every other line-item of expense necessary to successfully provide Council Chamber Audio System Renovation Services. **The City desires the most economical solution that fully meets the City's requirements.**



The Council Chamber Audio System Renovation Services shall include all services that can be reasonably expected to design, develop, and install an upgraded audio solution that provides all of the following:

- <u>Ease of use</u>- durable, fully integrated design centered around a wireless touchscreen controller/mixer with ability to mute and adjust the volume on individual microphones and speakers.
- Sound quality- reliable, even, and controlled sound coverage throughout the council chambers and council chambers lobby for all forms of media, including speech, music, and recording playback. Must provide an easy listening experience for both in-person and remote audiences.
- <u>Audio recording & archiving (optional)</u>- a more intuitive, system-compatible network recorder/archiver.
- <u>Efficient & effective setup</u>- complete compatibility with the existing visual equipment, and energy-efficient wireless microphones (handheld and lapel) that have a long battery life.
- <u>Accessibility elements</u>- compatibility with wireless assistive devices for those with hearing and vision impairments, in compliance with the Americans with Disabilities Act (ADA) and California accessibility requirements (collectively, "Accessibility Requirements").

The Council Chamber Audio System Renovation Services shall include all of the following:

- 1. Listing and detailed specifications of all materials
- 2. Detailed description of all labor required for (removal and) installation
- 3. Replacement of council chamber audio system
- 4. Programming, testing, and adjustments
- 5. Single-line diagram, schematics, and programming code information
- 6. Operating manual and warranty information for all installed equipment
- 7. Training and limited-term post-installation support



IV. SUBMISSION REQUIREMENTS

In order to be considered, the Contractor must submit before the deadline one (1) electronic copy of the complete proposal to: JHuynh@StantonCA.gov.

Contractors must submit their proposals as set forth below:

- Proposals shall be titled "Proposal for Council Chamber Audio System Renovation Services".
- All materials shall be sized to 8 $\frac{1}{2}$ " x 11" sheets, with a minimum of 11-pt font, and saved to a PDF version for transmission.
- Proposals should not include any unnecessarily elaborate promotional material.
- Proposals should be clear and concise—lengthy narrative is discouraged.

A complete proposal consists of the following two (2) separate elements: the services proposal and the cost proposal.

SERVICES PROPOSAL

The Services Proposal shall consist of the following sections (in order):

1. Submission Transmittal Form

EXHIBIT B, "Submission Transmittal Form," shall be fully completed and submitted in PDF format.

2. Qualifications, Relevant Experience, and References

This section of the proposal shall establish the ability of the Contractor to satisfactorily perform the required work by reasons of:

- Experience in performing work of a similar nature to the required services shown in the Scope of Services
- Proven competence in the services to be provided
- Strength and stability of the firm
- Staffing capacity
- Track record of meeting schedules on similar projects and supportive client references



This section shall, at a minimum:

- Describe the firm's <u>relevant experience</u> in performing work of a similar nature to that solicited in this RFP, highlighting the participation in such work by the key personnel proposed for assignment to the City.
- Describe the firm's <u>financial condition</u> by identifying any conditions that may impede the Contractor's ability to provide these services (e.g., bankruptcy, settlements paid in the last five years, pending litigation, planned office closures, impending merger, etc.).
- Identify <u>sub-contractors</u> by company name, address, contact person, telephone number, email address, and project function, if applicable. The list should include a summary of the roles and responsibilities of each sub-contractor.
- Using EXHIBIT C, "References Form," provide a minimum of three (3) references for completed work in the past five (5) years similar to the required services shown in the Scope of Services.
- Provide a <u>list of all organizations</u> which in the past five (5) years have contracted with the firm for work similar to the required services shown in the Scope of Services. The list should identify which, if any, of the organizations terminated or cancelled their contract with the firm; failure to list any such organizations, willfully or otherwise, may be grounds for rejection of the proposal.

3. Proposed Team

- Identify a proposed <u>Project Manager</u>, who will be responsible for planning, coordinating, and conducting the majority of the work. The Project Manager will serve as the City's day-to-day contact for this project.
- Describe key personnel's <u>specialized training</u>, experience, and professional competence in the area(s) directly related to this RFP.
 If providing résumés of key personnel, limit them to two pages maximum per résumé.
- Describe the <u>specific project responsibilities</u> for each key personnel member (and sub-contractor). Specify if any of the key personnel are based outside of the area (25-mile radius).



- Include a statement that key personnel will have undergone <u>criminal background and fingerprinting checks</u> (at Contractor's sole expense) that finds such personnel clear of any sexual, drugrelated, or felony convictions.
- Include a statement that <u>key personnel will be available</u> to the extent proposed for the duration of the required services, acknowledging that no person designated as "key" shall be removed or replaced without the prior written concurrence of the City.

4. Understanding of Project Needs

Contractor shall provide a detailed narrative describing the deficiencies in the current audio system that were observed during the Mandatory Site Visit, including wiring/electrical problems, broken equipment, unused equipment, poor installation, etc.

5. Approach and Project Schedule

Contractor shall provide a detailed narrative and critical-path timeline of the project approach, methodology, and services they will employ to reach project milestones and deliverables. Contractor shall include a detailed description of specific activities, if any, they will require of City staff.

Contractor shall also provide a detailed narrative of its on-call maintenance & technical support abilities post-implementation.

Contractor shall list the hours of availability and standard in-person response times for their technicians. Technicians must be familiar with the audio system equipment & software and come prepared with the tools and diagnostic equipment to troubleshoot and repair common issues. The City expects that Contractor be able to commit to responding via telephone to support requests within **thirty (30) minutes** during regular business hours. Should staff require *in-person support*, the City expects that Contractor be able to commit to having a technician arrive at the council chambers within **ninety (90) minutes**.



6. Exceptions and Deviations

Contractor shall state any exceptions or deviations from the requirements of this RFP, segregating "technical" exceptions from "contractual" exceptions. Where the Contractor wishes to propose alternative approaches to meeting the City's technical or contractual requirements, these shall be thoroughly explained. If no contractual exceptions are noted, Contractor will be deemed to have no objection to the contract requirements as set forth in EXHIBIT D, "Sample Professional Services Agreement."

7. Proof of Insurance

Contractor shall provide a current certificate of insurance that verifies the Contractor has insurance coverage that meets the insurance requirements set forth in EXHIBIT D, "Sample Professional Services Agreement," barring any contractual exceptions made.

COST PROPOSAL

In a separate file, Contractor shall provide their Cost Proposal. All taxes, insurance, and licenses, including, but not limited to, a Stanton City Business License, required for this work shall be obtained at the sole expense of the Contractor. Contractor shall state any assumptions on which costs are based.

The Cost Proposal shall consist of the following sections (in order):

1. Project Costs

Contractor shall present project costs broken down by project phases. Project costs shall be on a fixed-price, all-inclusive basis, meaning that mileage, printing, mailing, and other reimbursable costs shall be built into the pricing. Contractor shall note any Consumer Price Index (CPI) and other annual cost increases, with the understanding that such year-over-year cost increases will be judged unfavorably by the City.

2. Schedule of Hourly Rates

Contractor shall provide a schedule of hourly rates for each staff member of the proposed team, as well as any other relevant specialty personnel for the purposes of on-call maintenance and repair services regarding the audio system.



If and when the Contractor is performing, or is requested to perform, work beyond the Scope of Services, an amendment to the Professional Services Agreement will be executed between the City and Contractor. In such instances, unless the work was described and quoted in the proposal as an add-on service, payment will be based on the rates identified in the schedule of hourly rates.

V. EVALUATION CRITERIA

The City alone, using criteria determined by the City, will select the most qualified candidate. Submitted proposals will be evaluated based on the following factors, but may not be limited to just these factors:

Criteria	Approximate Weight
Approach to providing services, including the methods and techniques to be utilized for assessment and ongoing management, and customer service	25%
Cost of the services to reflect value and fiscal prudence	25%
Demonstrated record of success on similar work performed for other municipalities or enterprises	25%
Qualifications and ability of the firm in regard to providing the services outlined in the "Scope of Services"	25%

VI. EVALUATION PROCESS

Selection of the Contractor will be made in accordance with the provision of Chapter 10 of the California Government Code, Sections 4526 and 4529.5, stating that the selection of professional services shall be made based on competence and qualifications for the types of services to be performed at a fair and reasonable price. The cost proposals will be opened and evaluated after qualification evaluations of all proposers are complete. The contract award shall be made to the Contractor providing the best value to the City.

Each proposal will be reviewed to determine if it meets the submittal requirements contained within this RFP. Failure to meet the requirements for the RFP will be cause for rejection of the proposal. The City may reject any proposal if it is conditional, incomplete, or contains irregularities. The City may request written clarification or additional documentation for any proposal. The City may waive any immaterial deviations in a proposal, but this shall in no way



modify the proposal document or excuse the Contractor from compliance with the contract requirements if the Contractor is awarded the contract.

The City reserves the right to require in-person interviews with and/or presentations from Contractors, if deemed necessary, after the evaluation of the written proposals by a selection panel. In this case, the Contractors of the highest-scoring written proposals will be invited to interview/present.

In the event that a Contractor is selected, the successful Contractor to whom work is awarded shall, within ten (10) days after being notified, enter into a contract with the City for the work in accordance with the specifications and shall furnish all required documents necessary to enter into said contract. Failure of the successful applicant to execute the contract within the ten (10)-day window shall be just cause for the City to contract with the next most responsible Contractor. The terms and conditions set forth in EXHIBIT D, "Sample Professional Services Agreement," are subject to change without notice at any time prior to contract award. Upon execution of the contract, the contract shall take precedence over the RFP in the event of a conflict between the two documents.

A kick-off meeting shall be held after the final execution of the contract. Contractor and its team will meet with City staff to conduct introductions, discuss scope of services, and confirm the implementation process.

VII. GENERAL PROVISIONS

Pre-contractual expenses are defined as expenses incurred by the Contractor in: (1) preparing the proposal; (2) submitting the proposal to the City; (3) presenting during the selection interview; (4) negotiating with the City on any matter related to the proposal; and (5) any other expenses incurred by the Contractor prior to an executed Agreement.

The City shall not, in any event, be liable for any pre-contractual expenses incurred by the Contractor. Services shall not commence until the Professional Services Agreement has been executed by the City.

By submitting a proposal, Contractor attests that they have not been a party to any collusion among proposers in restraint of freedom of competition. This means that the Contractor has not directly or indirectly entered into any agreement, express or implied, with any other vendor(s) for the purposes of



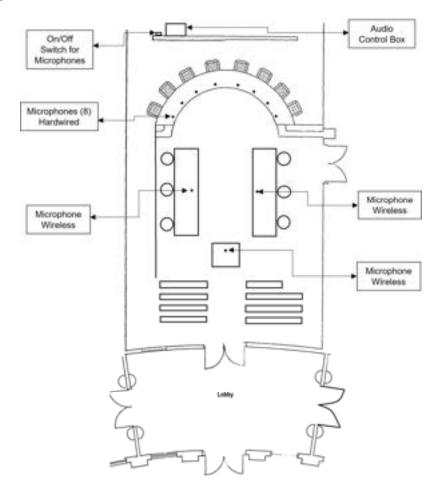
controlling the price or scope of services of said proposal or limiting the number of proposals submitted to the City.

The City reserves the right to retain all proposals submitted, and to use any idea in a proposal, regardless of whether the proposal was selected. Materials submitted by respondents are subject to public inspection under the California Public Records Act (Government Code Sec. 6250 *et seq.*). Any language purporting to render the entire proposal confidential or proprietary will be ineffective and disregarded.

All property rights, including publication rights of all reports produced by the selected firm in connection with services performed under this agreement, shall be vested in the City.

The City reserves the right to amend or withdraw this RFP at any time without prior notice. Further, the City makes no representations that any Agreement will be awarded to any Consultant responding to this RFP. The City expressly reserves the right to postpone reviewing the proposals for its own convenience and to reject any and all proposals responding to this RFP without indicating any reasons for such rejection(s).

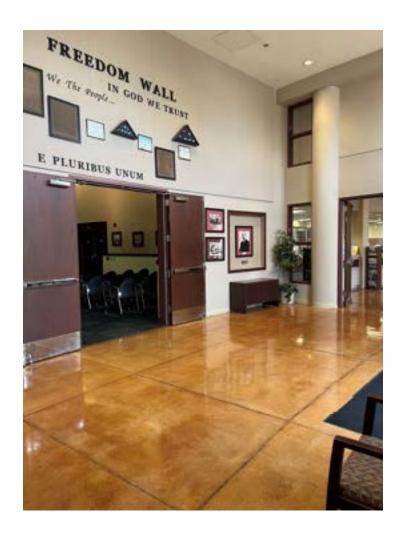
Labeled Diagram - Council Chambers & Lobby



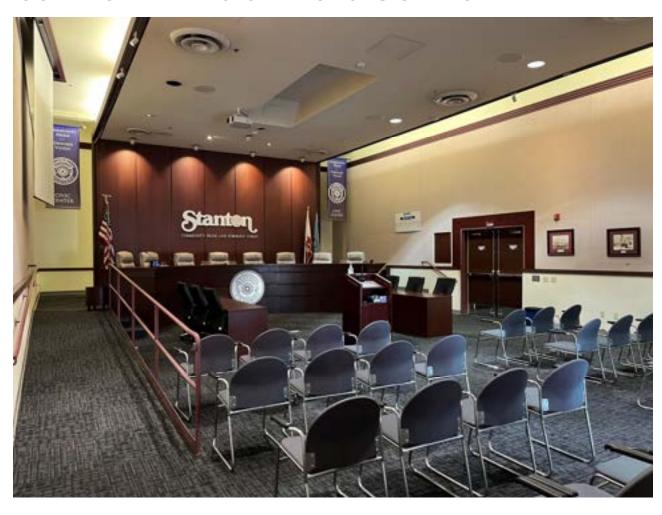
^{*}Diagram is not to scale.

Council Chambers Lobby





Audience View – Back Left Corner



Audience View - Right Side (Front Row)



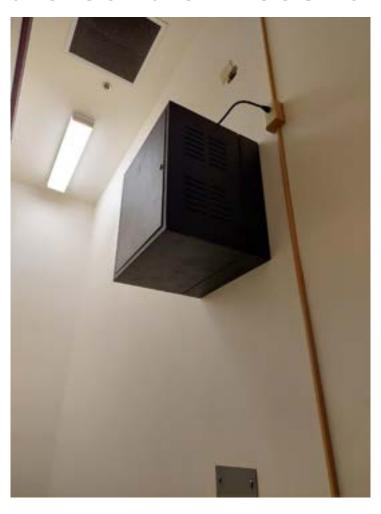
Dais View - Center



Dais View - Down Dais (from Left)



Audio Control – Council Chamber Back Hall





Ceiling View – 8 Speakers





Ceiling View – 2 & 2 Speakers



APPLICATION				
Request for Proposals Subject	Council Chamber Audio System Renovation			
Legal Name of Submitter (and d/b/a)				
Type of Organization (corporation, limited liability company, partnership, sole proprietorship, etc.)				
Years of Experience Performing the Requested Services	Federal Employer ID Number (FEIN)	Contractor License No. (if applicable)		
City of Corporate Headquarters	Estimated Number of Employees (company-wide)	Website		
Address for Notices				
Contact Information Regarding This Submittal				
Email Address	Phone Number	Fax Number (if applicable)		
	()	()		
Attestation Statement				
By completing and signing this form, I hereby attest to all of the following: 1) I am an authorized signatory for the aforementioned Submitter. 2) In preparing this submission, the Submitter has thoroughly abided by the RFP, as well as any and all related addenda. 3) A technical representative of the Submitter was present for the Mandatory Site Visit. 4) All information submitted in this submission is true and correct.				
Signature (Scanned wet signature or Formally timestamped e-signature)				
Name (printed)				
Title				

If you have any questions, please contact Jason Huynh, Management Analyst, at JHuynh@StantonCA.gov.

REFERENCE #1				
Name of Agency/Organization				
<u>Contact Information</u> (Person <i>Most Knowledgeable</i> About the Work Performed)				
Name	Title	Address (of Agency/ Organization)		
Email Address	Phone Number			
	()			
Description of the Services Provided				
Proposed Key Personnel that were Involved with This Project				
Date Range that Services Were Provided				
Total Cost				
DEFENDACE #0				
REFERENCE #2				
Name of Agency/Organization				
<u>Contact Information</u> (Person <i>Most Knowledgeable</i> About the Work Performed)				
Name	Title	Address (of Agency/ Organization)		
Email Address	Phone Number			
	()			
Description of the Services Provided				

Proposed Key Personnel that were Involved with This Project				
Date Range that Services Were Provided				
Total Cost				
REFERENCE #3				
Name of Agency/Organization				
<u>Contact Information</u> (Person <i>Most Knowledgeable</i> About the Work Performed)				
Name	Title	Address (of Agency/ Organization)		
Email Address	Phone Number			
	()			
Description of the Services Provided				
Proposed Key Personnel that were Involved with This Project				
Date Range that Services Were Provided				
Total Cost				

If you have any questions, please contact Jason Huynh, Management Analyst, at JHuynh@StantonCA.gov.

CITY OF STANTON PROFESSIONAL SERVICES AGREEMENT FOR COUNCIL CHAMBER AUDIO SYSTEM RENOVATION SERVICES

1. PARTIES AND DATE.

This Agreement is made and entered into this ______ day of ________, 2024, by and between the City of Stanton, a municipal organization organized under the laws of the State of California with its principal place of business at 7800 Katella Avenue, Stanton, California 90680 ("City") and [INSERT NAME OF COMPANY], a [INSERT TYPE OF BUSINESS; CORPORATION; LIMITED LIABILITY COMPANY; ETC.], with its principal place of business at [INSERT ADDRESS] ("Consultant"). City and Consultant are sometimes individually referred to herein as "Party" and collectively as "Parties."

2. RECITALS.

2.1 Consultant.

Council Chamber Audio System Renovation services required by the City on the terms and conditions set forth in this Agreement. Consultant represents that it is experienced in providing professional Council Chamber Audio System Renovation services to public clients, is licensed in the State of California, and is familiar with the plans of City.

2.2 Project.

City desires to engage Consultant to render such services for the **Council Chamber Audio System Renovation** project ("Project") as set forth in this Agreement.

3. TERMS.

3.1 Scope of Services and Term.

- 3.1.1 <u>General Scope of Services</u>. Consultant promises and agrees to furnish to the City all labor, materials, tools, equipment, services, and incidental and customary work necessary to fully and adequately supply the professional **Council Chamber Audio System Renovation** services necessary for the Project ("Services"). The Services are more particularly described in Exhibit "A" attached hereto and incorporated herein by reference. All Services shall be subject to, and performed in accordance with, this Agreement, the exhibits attached hereto and incorporated herein by reference, and all applicable local, state, and federal laws, rules, and regulations.
- 3.1.2 <u>Term.</u> The term of this Agreement shall be from **[INSERT START DATE]** to **[INSERT ENDING DATE]**, unless earlier terminated as provided herein. The City Manager shall have the unilateral option, at its sole discretion, to renew this Agreement annually for no more than two additional one-year terms. Consultant shall complete the Services within the term of this Agreement, and shall meet any other established schedules and deadlines.

3.2 Responsibilities of Consultant.

- Independent Contractors, Control and Payment of Subordinates; Independent Contractor. The Services shall be performed by Consultant or under its supervision. Consultant will determine the means, methods, and details of performing the Services subject to the requirements of this Agreement. City retains Consultant on an independent contractor basis and not as an employee. Consultant shall complete, execute, and submit to City a Request for Taxpayer Identification Number and Certification (IRS Form W-9) prior to commencement of any Services under this Agreement. Consultant retains the right to perform similar or different services for others during the term of this Agreement. Any additional personnel performing the Services under this Agreement on behalf of Consultant shall also not be employees of City and shall at all times be under Consultant's exclusive direction and control. Neither City, nor any of its officials, officers, directors, employees or agents shall have control over the conduct of Consultant or any of Consultant's officers, employees, or agents, except as set forth in this Agreement. Consultant shall pay all wages, salaries, and other amounts due such personnel in connection with their performance of Services under this Agreement and as required by law. Consultant shall be responsible for all reports and obligations respecting such additional personnel, including, but not limited to, social security taxes, income tax withholding, unemployment insurance, disability insurance, and workers' compensation insurance.
- 3.2.2 <u>Schedule of Services</u>. Consultant shall perform the Services expeditiously, within the term of this Agreement, and in accordance with the Schedule of Services set forth in Exhibit "B" attached hereto and incorporated herein by reference. Consultant represents that it has the professional and technical personnel required to perform the Services in conformance with such conditions. In order to facilitate Consultant's conformance with the Schedule, City shall respond to Consultant's submittals in a timely manner. Upon request of City, Consultant shall provide a more detailed schedule of anticipated performance to meet the Schedule of Services.
- 3.2.3 <u>Conformance to Applicable Requirements</u>. All work prepared by Consultant shall be subject to the approval of City.
- 3.2.4 <u>Substitution of Key Personnel</u>. Consultant has represented to City that certain key personnel will perform and coordinate the Services under this Agreement. Should one or more of such personnel become unavailable, Consultant may substitute other personnel of at least equal competence upon written approval of City. In the event that City and Consultant cannot agree as to the substitution of key personnel, City shall be entitled to terminate this Agreement for cause. As discussed below, any personnel who fail or refuse to perform the Services in a manner acceptable to the City, or who are determined by the City to be uncooperative, incompetent, a threat to the adequate or timely completion of the Project or a threat to the safety of persons or property, shall be promptly removed from the Project by the Consultant at the request of the City. The key personnel for performance of this Agreement are as follows: [INSERT NAME(S)].
- 3.2.5 <u>City's Representative</u>. The City hereby designates the City Manager, or his or her designee, to act as its representative for the performance of this Agreement ("City's Representative"). City's Representative shall have the power to act on behalf of the City for all purposes under this Contract. The City Manager hereby designates **Patricia Vazquez**, **City Clerk**, or his or her designee, as the City's contact for the implementation of the Services hereunder.

Consultant shall not accept direction or orders from any person other than the City's Representative or his or her designee.

- 3.2.6 <u>Consultant's Representative</u>. Consultant hereby designates **[INSERT NAME OR TITLE]**, or his or her designee, to act as its representative for the performance of this Agreement ("Consultant's Representative"). Consultant's Representative shall have full authority to represent and act on behalf of the Consultant for all purposes under this Agreement. The Consultant's Representative shall supervise and direct the Services, using his best skill and attention, and shall be responsible for all means, methods, techniques, sequences, and procedures and for the satisfactory coordination of all portions of the Services under this Agreement.
- 3.2.7 <u>Coordination of Services</u>. Consultant agrees to work closely with City staff in the performance of Services and shall be available to City's staff, consultants, and other staff at all reasonable times.
- 3.2.8 Standard of Care; Performance of Employees. Consultant shall perform all Services under this Agreement in a skillful and competent manner, consistent with the standards generally recognized as being employed by professionals in the same discipline in the State of California. Consultant represents and maintains that it is skilled in the professional calling necessary to perform the Services. Consultant warrants that all employees and subconsultants shall have sufficient skill and experience to perform the Services assigned to them. Finally, Consultant represents that it, its employees and subconsultants have all licenses, permits, qualifications and approvals of whatever nature that are legally required to perform the Services and that such licenses and approvals shall be maintained throughout the term of this Agreement. As provided for in the indemnification provisions of this Agreement, Consultant shall perform, at its own cost and expense and without reimbursement from the City, any services necessary to correct errors or omissions which are caused by the Consultant's failure to comply with the standard of care provided for herein. Any employee of the Consultant or its sub-consultants who is determined by the City to be uncooperative, incompetent, a threat to the adequate or timely completion of the Project, a threat to the safety of persons or property, or any employee who fails or refuses to perform the Services in a manner acceptable to the City, shall be promptly removed from the Project by the Consultant and shall not be re-employed to perform any of the Services or to work on the Project.
- 3.2.9 <u>Laws and Regulations</u>. Consultant shall keep itself fully informed of and in compliance with all local, state, and federal laws, rules and regulations in any manner affecting the performance of the Project or the Services, including all Cal/OSHA requirements, and shall give all notices required by law. Consultant shall be liable for all violations of such laws and regulations in connection with Services. If the Consultant performs any work knowing it to be contrary to such laws, rules and regulations, Consultant shall be solely responsible for all costs arising therefrom. Consultant shall defend, indemnify, and hold City, its officials, directors, officers, employees, agents, and volunteers free and harmless, pursuant to the indemnification provisions of this Agreement, from any claim or liability arising out of any failure or alleged failure to comply with such laws, rules or regulations.

3.2.10 <u>Insurance</u>.

- 3.2.10.1 <u>Time for Compliance</u>. Consultant shall not commence Work under this Agreement until it has provided evidence satisfactory to the City that it has secured all insurance required under this section. In addition, Consultant shall not allow any subconsultant to commence work on any subcontract until it has provided evidence satisfactory to the City that the subconsultant has secured all insurance required under this section.
- 3.2.10.2 <u>Types of Insurance Required</u>. As a condition precedent to the effectiveness of this Agreement for work to be performed hereunder and without limiting the indemnity provisions of the Agreement, the Consultant in partial performance of its obligations under such Agreement, shall procure and maintain in full force and effect during the term of the Agreement, the insurance specified in Exhibit "D" attached hereto and incorporated herein. If the existing policies do not meet the Insurance Requirements set forth herein, Consultant agrees to amend, supplement, or endorse the policies to do so.
- 3.2.10.3 <u>Primary and Non-Contributing Insurance</u>. All insurance coverages shall be primary and any other insurance, deductible, or self-insurance maintained by the indemnified parties shall not contribute with this primary insurance. Policies shall contain or be endorsed to contain such provisions.
- 3.2.10.4 <u>Waiver of Subrogation</u>. Required insurance coverages shall not prohibit Consultant from waiving the right of subrogation prior to a loss. Consultant shall waive all subrogation rights against the indemnified parties. Policies shall contain or be endorsed to contain such provisions.
- 3.2.10.5 <u>Deductible</u>. Any deductible or self-insured retention must be approved in writing by the City and shall protect the indemnified parties in the same manner and to the same extent as they would have been protected had the policy or policies not contained a deductible or self-insured retention.
- 3.2.10.6 Evidence of Insurance. The Consultant, concurrently with the execution of the Agreement, and as a condition precedent to the effectiveness thereof, shall deliver either certified copies of the required policies, or original certificates and endorsements on forms approved by the City. The certificates and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf. At least fifteen (15 days) prior to the expiration of any such policy, evidence of insurance showing that such insurance coverage has been renewed or extended shall be filed with the City. If such coverage is cancelled or reduced, Consultant shall, within ten (10) days after receipt of written notice of such cancellation or reduction of coverage, file with the City evidence of insurance showing that the required insurance has been reinstated or has been provided through another insurance company or companies.
- 3.2.10.7 <u>Failure to Maintain Coverage</u>. Consultant agrees to suspend and cease all operations hereunder during such period of time as the required insurance coverage is not in effect and evidence of insurance has not been furnished to the City. The City shall have the right to withhold any payment due to the Consultant until Consultant has fully complied with the insurance provisions of this Agreement.

In the event that the Consultant's operations are suspended for failure to maintain required insurance coverage, the Consultant shall not be entitled to an extension of time for completion of the Services because of production lost during suspension.

- 3.2.10.8 <u>Acceptability of Insurers</u>. Each such policy shall be from a company or companies with a current A.M. Best's rating of no less than A:VIII and authorized to do business in the State of California, or otherwise allowed to place insurance through surplus line brokers under applicable provisions of the California Insurance Code or any federal law.
- 3.2.10.9 <u>Insurance for Subconsultants</u>. All Subconsultants shall be included as additional insureds under the Consultant's policies, or the Consultant shall be responsible for causing Subconsultants to purchase the appropriate insurance in compliance with the terms of these Insurance Requirements, including adding the City as an Additional Insured to the Subconsultant's policies.
- 3.2.11 <u>Safety</u>. Consultant shall execute and maintain its work so as to avoid injury or damage to any person or property. In carrying out its Services, the Consultant shall at all times be in compliance with all applicable local, state, and federal laws, rules and regulations, and shall exercise all necessary precautions for the safety of employees appropriate to the nature of the work and the conditions under which the work is to be performed. Safety precautions as applicable shall include, but shall not be limited to: (A) adequate life protection and life-saving equipment and procedures; (B) instructions in accident prevention for all employees and subconsultants, such as safe walkways, scaffolds, fall protection ladders, bridges, gang planks, confined space procedures, trenching and shoring, equipment and other safety devices, equipment and wearing apparel as are necessary or lawfully required to prevent accidents or injuries; and (C) adequate facilities for the proper inspection and maintenance of all safety measures.

3.3 Fees and Payments.

- 3.3.1 <u>Compensation</u>. Consultant shall receive compensation, including authorized reimbursements, for all Services rendered under this Agreement at the rates set forth in Exhibit "C" attached hereto and incorporated herein by reference. The total compensation shall not exceed [INSERT WRITTEN DOLLAR AMOUNT] DOLLARS (\$[INSERT NUMBER]) ("Total Compensation") without written approval of City's City Manager. Extra Work may be authorized, as described below, and if authorized, will be compensated at the rates and manner set forth in this Agreement.
- 3.3.2 <u>Payment of Compensation</u>. Consultant shall submit to City a monthly itemized statement which indicates work completed and hours of Services rendered by Consultant. The statement shall describe the amount of Services and supplies provided since the initial commencement date, or since the start of the subsequent billing periods, as appropriate, through the date of the statement. City shall, within 45 days of receiving such statement, review the statement and pay all approved charges thereon.
- 3.3.3 <u>Reimbursement for Expenses</u>. Consultant shall not be reimbursed for any expenses unless authorized in writing by City.

- 3.3.4 Extra Work. At any time during the term of this Agreement, City may request that Consultant perform Extra Work. As used herein, "Extra Work" means any work which is determined by City to be necessary for the proper completion of the Project, but which the Parties did not reasonably anticipate would be necessary at the execution of this Agreement. Consultant shall not perform, nor be compensated for, Extra Work without written authorization from the City.
- 3.3.5 <u>Prevailing Wages</u>. Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the Services are being performed as part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is \$1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. City shall provide Consultant with a copy of the prevailing rates of per diem wages in effect at the commencement of this Agreement. Consultant shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the Services available to interested parties upon request and shall post copies at the Consultant's principal place of business and at the project site. It is the intent of the parties to effectuate the requirements of sections 1771, 1774, 1775, 1776, 1777.5, 1813, and 1815 of the Labor Code within this Agreement, and Consultant shall therefore comply with such Labor Code sections to the fullest extent required by law. Consultant shall defend, indemnify, and hold the City, its elected officials, officers, employees, agents, and volunteers free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

3.4 Accounting Records.

3.4.1 <u>Maintenance and Inspection</u>. Consultant shall maintain complete and accurate records with respect to all costs and expenses incurred under this Agreement. All such records shall be clearly identifiable. Consultant shall allow a representative of City during normal business hours to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to the Agreement for a period of three (3) years from the date of final payment under this Agreement.

3.5 General Provisions.

3.5.1 <u>Termination of Agreement</u>.

3.5.1.1 <u>Grounds for Termination</u>. City may, by written notice to Consultant, terminate the whole or any part of this Agreement at any time and without cause by giving written notice to Consultant of such termination, and specifying the effective date thereof, at least seven (7) days before the effective date of such termination. Upon termination, Consultant shall be compensated only for those services which have been adequately rendered to City, and Consultant shall be entitled to no further compensation. Consultant may not terminate this Agreement except for cause.

- 3.5.1.2 <u>Effect of Termination</u>. If this Agreement is terminated as provided herein, City may require Consultant to provide all finished or unfinished Documents and Data and other information of any kind prepared by Consultant in connection with the performance of Services under this Agreement. Consultant shall be required to provide such document and other information within fifteen (15) days of the request.
- 3.5.1.3 <u>Additional Services</u>. In the event this Agreement is terminated in whole or in part as provided herein, City may procure, upon such terms and in such manner as it may determine appropriate, services similar to those terminated.
- 3.5.2 <u>Delivery of Notices</u>. All notices permitted or required under this Agreement shall be given to the respective parties at the following address, or at such other address as the respective parties may provide in writing for this purpose:

Consultant:

[INSERT NAME, ADDRESS & CONTACT PERSON]

City:

City of Stanton 7800 Katella Avenue Stanton, CA 90680

Attn: Hannah Shin-Heydorn, Administration Department

Such notice shall be deemed made when personally delivered or when mailed, forty-eight (48) hours after deposit in the U.S. Mail, first class postage prepaid and addressed to the party at its applicable address. Actual notice shall be deemed adequate notice on the date actual notice occurred, regardless of the method of service.

- 3.5.3 Ownership of Materials and Confidentiality.
- 3.5.3.1 Documents & Data; Licensing of Intellectual Property. This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including, but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subconsultants to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subconsultant prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were prepared by design professionals other than Consultant or provided to Consultant by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

- 3.5.3.2 <u>Confidentiality</u>. All ideas, memoranda, specifications, plans, procedures, drawings, descriptions, computer program data, input record data, written information, and other Documents and Data either created by or provided to Consultant in connection with the performance of this Agreement shall be held confidential by Consultant. Such materials shall not, without the prior written consent of City, be used by Consultant for any purposes other than the performance of the Services. Nor shall such materials be disclosed to any person or entity not connected with the performance of the Services or the Project. Nothing furnished to Consultant which is otherwise known to Consultant or is generally known, or has become known, to the related industry shall be deemed confidential. Consultant shall not use City's name or insignia, photographs of the Project, or any publicity pertaining to the Services or the Project in any magazine, trade paper, newspaper, television or radio production or other similar medium without the prior written consent of City.
- Consultant's proprietary information ("Proprietary Information") unless the City's legal counsel determines that the release of the Proprietary Information is required by the California Public Records Act or other applicable state or federal law, or order of a court of competent jurisdiction, in which case the City shall notify Consultant of its intention to release Proprietary Information. Consultant shall have five (5) working days after receipt of the Release Notice to give City written notice of Consultant's objection to the City's release of Proprietary Information. Consultant shall indemnify, defend, and hold harmless the City, and its officers, directors, employees, and agents from and against all liability, loss, cost or expense (including attorney's fees) arising out of a legal action brought to compel the release of Proprietary Information. City shall not release the Proprietary Information after receipt of the Objection Notice unless either: (1) Consultant fails to fully indemnify, defend (with City's choice of legal counsel), and hold City harmless from any legal action brought to compel such release; and/or (2) a final and non-appealable order by a court of competent jurisdiction requires that City release such information.
- 3.5.4 <u>Cooperation; Further Acts</u>. The Parties shall fully cooperate with one another and shall take any additional acts or sign any additional documents as may be necessary, appropriate or convenient to attain the purposes of this Agreement.
- 3.5.5 <u>Attorney's Fees</u>. If either party commences an action against the other party, either legal, administrative, or otherwise, arising out of or in connection with this Agreement, the prevailing party in such litigation shall be entitled to have and recover from the losing party reasonable attorney's fees and all other costs of such action.

3.5.6 Indemnification.

To the fullest extent permitted by law, Consultant shall defend (with counsel of City's choosing), indemnify and hold the City, its officials, officers, employees, volunteers and agents free and harmless from any and all claims, demands, causes of action, costs, expenses, liability, loss, damage or injury of any kind, in law or equity, to property or persons, including wrongful death, in any manner arising out of, pertaining to, or incident to any alleged acts, errors or omissions, or willful misconduct of Consultant, its officials, officers, employees, subcontractors, consultants or agents in connection with the performance of the Consultant's Services, the Project or this Agreement, including without limitation the payment of all damages,

expert witness fees and attorneys fees and other related costs and expenses. Consultant's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by the Consultant or the City, its officials, officers, employees, agents, or volunteers.

If Consultant's obligation to defend, indemnify, and/or hold harmless arises out of Consultant's performance as a "design professional" (as that term is defined under Civil Code section 2782.8), then, and only to the extent required by Civil Code section 2782.8, which is fully incorporated herein, Consultant's indemnification obligation shall be limited to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant, and, upon Consultant obtaining a final adjudication by a court of competent jurisdiction, Consultant's liability for such claim, including the cost to defend, shall not exceed the Consultant's proportionate percentage of fault.

- 3.5.7 <u>Entire Agreement</u>. This Agreement contains the entire Agreement of the parties with respect to the subject matter hereof, and supersedes all prior negotiations, understandings, or agreements. This Agreement may only be modified by a writing signed by both parties.
- 3.5.8 <u>Governing Law</u>. This Agreement shall be governed by the laws of the State of California. Venue shall be in Orange County.
- 3.5.9 <u>Time of Essence</u>. Time is of the essence for each and every provision of this Agreement.
- 3.6 <u>City's Right to Employ Other Consultants</u>. City reserves right to employ other consultants in connection with this Project.
- **3.7** <u>Successors and Assigns</u>. This Agreement shall be binding on the successors and assigns of the parties.
- **3.8** Assignment or Transfer. Consultant shall not assign, hypothecate, or transfer, either directly or by operation of law, this Agreement or any interest herein without the prior written consent of the City. Any attempt to do so shall be null and void, and any assignees, hypothecates or transferees shall acquire no right or interest by reason of such attempted assignment, hypothecation or transfer.
- **3.9** Construction; References; Captions. Since the Parties or their agents have participated fully in the preparation of this Agreement, the language of this Agreement shall be construed simply, according to its fair meaning, and not strictly for or against any Party. Any term referencing time, days or period for performance shall be deemed calendar days and not work days. All references to Consultant include all personnel, employees, agents, and subconsultants of Consultant, except as otherwise specified in this Agreement. All references to City include its elected officials, officers, employees, agents, and volunteers except as otherwise specified in this Agreement. The captions of the various articles and paragraphs are for convenience and ease of reference only, and do not define, limit, augment, or describe the scope, content, or intent of this Agreement.

- **3.10** <u>Amendment; Modification</u>. No supplement, modification, or amendment of this Agreement shall be binding unless executed in writing and signed by both Parties.
- **3.11** <u>Waiver.</u> No waiver of any default shall constitute a waiver of any other default or breach, whether of the same or other covenant or condition. No waiver, benefit, privilege, or service voluntarily given or performed by a Party shall give the other Party any contractual rights by custom, estoppel, or otherwise.
- **3.12 No Third-Party Beneficiaries.** There are no intended third-party beneficiaries of any right or obligation assumed by the Parties.
- **3.13** <u>Invalidity</u>: <u>Severability</u>. If any portion of this Agreement is declared invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions shall continue in full force and effect.
- 3.14 Prohibited Interests. Consultant maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Consultant, to solicit or secure this Agreement. Further, Consultant warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, City shall have the right to rescind this Agreement without liability. For the term of this Agreement, no member, officer or employee of City, during the term of his or her service with City, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising therefrom.
- 3.15 <u>Equal Opportunity Employment</u>. Consultant represents that it is an equal opportunity employer and it shall not discriminate against any subconsultant, employee or applicant for employment because of race, religion, color, national origin, handicap, ancestry, sex or age. Such non-discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination. Consultant shall also comply with all relevant provisions of City's Minority Business Enterprise program, Affirmative Action Plan or other related programs or guidelines currently in effect or hereinafter enacted.
- **3.16** <u>Labor Certification</u>. By its signature hereunder, Consultant certifies that it is aware of the provisions of Section 3700 of the California Labor Code, which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that Code, and agrees to comply with such provisions before commencing the performance of the Services.
- **3.17** <u>Authority to Enter Agreement.</u> Consultant has all requisite power and authority to conduct its business and to execute, deliver, and perform the Agreement. Each Party warrants that the individuals who have signed this Agreement have the legal power, right, and authority to make this Agreement and bind each respective Party.
- **3.18** <u>Counterparts</u>. This Agreement may be signed in counterparts, each of which shall constitute an original.

3.19 <u>Declaration of Political Contributions</u>. Consultant shall, throughout the term of this Agreement, submit to City an annual statement in writing declaring any political contributions of money, in-kind services, or loan made to any member of the City Council within the previous twelve-month period by the Consultant and all of Consultant's employees, including any employee(s) that Consultant intends to assign to perform the Services described in this Agreement.

3.20 Subcontracting.

3.20.1 <u>Prior Approval Required</u>. Consultant shall not subcontract any portion of the work required by this Agreement, except as expressly stated herein, without prior written approval of City. Subcontracts, if any, shall contain a provision making them subject to all provisions stipulated in this Agreement.

[Signatures on following page.]

CITY OF STANTON	[INSERT NAME OF CONSULTANT]
By: City Manager	Name: Title: [If Corporation, TWO SIGNATURES,
ATTEST:	President OR Vice President AND Secretary, AND CORPORATE SEAL OF CONSULTANT REQUIRED]
By: Patricia Vazquez City Clerk	By:
APPROVED AS TO FORM:	
Ву:	

EXHIBIT "A"

SCOPE OF SERVICES

[INSERT SCOPE OF SERVICES]

EXHIBIT "B"

SCHEDULE OF SERVICES

[INSERT SCHEDULE OF SERVICES]

EXHIBIT "C"

COMPENSATION

[INSERT RATES & AUTHORIZED REIMBURSABLE EXPENSES]

EXHIBIT "D"

INSURANCE REQUIREMENTS

Certificate holder on Certificate of Insurance shall be stated as follows:

City of Stanton

7800 Katella Avenue

Stanton, CA 90680

Required insurance policies shall not be in compliance if they include an endorsement with any limiting provision (e.g., to contractual liability, "ongoing operations," or the "sole" liability of Consultant) or exclusion (e.g., cross-liability) contrary to the Agreement, unless such endorsements are approved by the City. Endorsements shall read as follows:

Additional Insured:

- City of Stanton its elected and appointed officials, officers, employees, agents, and volunteers shall be additional insureds with regard to liability and defense of suits or claims arising out of the performance of the Agreement. OR
- Any person or organization as required by written agreement/contract. (Blanket coverage)

[Note: Use Insurance Services Office (ISO) form CG 20 26 04 13, or a form at least as broad.]

Primary and Non-Contributory:

• It is agreed that any insurance or self-insurance maintained by the City of Stanton shall apply in excess of, and not contribute with, insurance provided by this policy.

[Note: Use ISO form CG 20 01 04 13, or a form at least as broad.]

Waiver of Subrogation:

• We [the insurer] waive any right of recovery we may have against the City of Stanton because of payments we make for injury or damage arising out of you ongoing operations or "your work" done under a contract with that person or organization and included in the "products-completed operations hazard".

[Note: Use ISO form CG __ __ _, or a form at least as broad.]

Commercial General Liability

Coverage shall be at least as broad as ISO Form CG 0001. Defense costs shall be paid in addition to the limits.

Ш	A.M. Best Rating; A-/VIII minimum		
	Additional Insured Endorsement with policy # indicated		
	Primary Non-Contributory Endorsement with policy # indicated		
	Waiver of Subrogation Endorsement with policy # indicated		
	\$1,000,000 limit per occurrence		
	\$2,000,000 aggregate per project		
	Self-Insured Retention information (Must be declared on certificate of insurance when applicable – waiver and current audited financial report required if over \$50,000)		
Auton	nobile Liability		
Covera	age shall be at least as broad as ISO Form CA 0001.		
	A.M. Best Rating; A-/VIII minimum		
	Additional Insured Endorsement with policy # indicated		
	Primary Non-Contributory Endorsement with policy # indicated		
	Waiver of Subrogation Endorsement with policy # indicated		
	Shall cover "Any Auto" (unless otherwise exempted by the City)		
	\$1,000,000 limit per occurrence		
	Self-Insured Retention information (Must be declared on certificate of insurance when applicable – waiver and current audited financial report required if over \$50,000)		
Work	ers' Compensation/Employers' Liability		
	A.M. Best Rating; A-/VIII minimum		
	Waiver of Subrogation Endorsement with policy # indicated		
	"Statutory" is checked for Workers' Compensation		
	\$1,000,000 limit per occurrence for Employers' Liability		

Professional Liability

Covered professional services shall specifically include all work to be performed under the Agreement and delete any exclusions that may potentially affect the work to be performed. If coverage is written on a claims-made basis, the retroactive date shall precede the effective date of

the initial Agreement and continuous coverage will be maintained or an extended reporting period will be exercised for a period of at least three (3) years from termination or expiration of this Agreement.
☐ A.M. Best Rating; A-/VIII minimum
☐ Waiver of Subrogation Endorsement with policy # indicated
□ \$1,000,000 per occurrence
□ \$1,000,000 aggregate
☐ Self-Insured Retention information (Must be declared on certificate of insurance when applicable – waiver and current audited financial report required if over \$50,000)
Technology Errors & Omissions
Not applicable.
Cyber/Network Security & Privacy Liability
Not applicable.
Sexual Misconduct
Not applicable.
Employee Dishonesty & Crime
Not applicable.

Attachment: B

Click here to return to the agenda.

CITY OF STANTON PROFESSIONAL SERVICES AGREEMENT FOR COUNCIL CHAMBER AUDIO SYSTEM RENOVATION SERVICES

1. PARTIES AND DATE.

This Agreement is made and entered into this 9th day of July, 2024, by and between the City of Stanton, a municipal organization organized under the laws of the State of California with its principal place of business at 7800 Katella Avenue, Stanton, California 90680 ("City") and Matrix Audio Visual Designs, Inc, a California S-Corporation, with its principal place of business at 2525 W. Burbank Boulevard, Burbank, CA 91505 ("Consultant"). City and Consultant are sometimes individually referred to herein as "Party" and collectively as "Parties."

2. RECITALS.

2.1 Consultant.

Council Chamber Audio System Renovation services required by the City on the terms and conditions set forth in this Agreement. Consultant represents that it is experienced in providing professional Council Chamber Audio System Renovation services to public clients, is licensed in the State of California, and is familiar with the plans of City.

2.2 Project.

City desires to engage Consultant to render such services for the **Council Chamber Audio System Renovation** project ("Project") as set forth in this Agreement.

3. TERMS.

3.1 Scope of Services and Term.

- 3.1.1 <u>General Scope of Services</u>. Consultant promises and agrees to furnish to the City all labor, materials, tools, equipment, services, and incidental and customary work necessary to fully and adequately supply the professional **Council Chamber Audio System Renovation** services necessary for the Project ("Services"). The Services are more particularly described in Exhibit "A" attached hereto and incorporated herein by reference. All Services shall be subject to, and performed in accordance with, this Agreement, the exhibits attached hereto and incorporated herein by reference, and all applicable local, state, and federal laws, rules, and regulations.
- 3.1.2 <u>Term</u>. The term of this Agreement shall be from July 9, 2024 to July 9, 2025, unless earlier terminated as provided herein. The City Manager shall have the unilateral option, at its sole discretion, to renew this Agreement annually for no more than two additional one-year terms. Consultant shall complete the Services within the term of this Agreement, and shall meet any other established schedules and deadlines.

3.2 Responsibilities of Consultant.

- Independent Contractors, Control and Payment of Subordinates; Independent Contractor. The Services shall be performed by Consultant or under its supervision. Consultant will determine the means, methods, and details of performing the Services subject to the requirements of this Agreement. City retains Consultant on an independent contractor basis and not as an employee. Consultant shall complete, execute, and submit to City a Request for Taxpayer Identification Number and Certification (IRS Form W-9) prior to commencement of any Services under this Agreement. Consultant retains the right to perform similar or different services for others during the term of this Agreement. Any additional personnel performing the Services under this Agreement on behalf of Consultant shall also not be employees of City and shall at all times be under Consultant's exclusive direction and control. Neither City, nor any of its officials, officers, directors, employees or agents shall have control over the conduct of Consultant or any of Consultant's officers, employees, or agents, except as set forth in this Agreement. Consultant shall pay all wages, salaries, and other amounts due such personnel in connection with their performance of Services under this Agreement and as required by law. Consultant shall be responsible for all reports and obligations respecting such additional personnel, including, but not limited to, social security taxes, income tax withholding, unemployment insurance, disability insurance, and workers' compensation insurance.
- 3.2.2 <u>Schedule of Services</u>. Consultant shall perform the Services expeditiously, within the term of this Agreement, and in accordance with the Schedule of Services set forth in Exhibit "B" attached hereto and incorporated herein by reference. Consultant represents that it has the professional and technical personnel required to perform the Services in conformance with such conditions. In order to facilitate Consultant's conformance with the Schedule, City shall respond to Consultant's submittals in a timely manner. Upon request of City, Consultant shall provide a more detailed schedule of anticipated performance to meet the Schedule of Services.
- 3.2.3 <u>Conformance to Applicable Requirements</u>. All work prepared by Consultant shall be subject to the approval of City.
- 3.2.4 <u>Substitution of Key Personnel</u>. Consultant has represented to City that certain key personnel will perform and coordinate the Services under this Agreement. Should one or more of such personnel become unavailable, Consultant may substitute other personnel of at least equal competence upon written approval of City. In the event that City and Consultant cannot agree as to the substitution of key personnel, City shall be entitled to terminate this Agreement for cause. As discussed below, any personnel who fail or refuse to perform the Services in a manner acceptable to the City, or who are determined by the City to be uncooperative, incompetent, a threat to the adequate or timely completion of the Project or a threat to the safety of persons or property, shall be promptly removed from the Project by the Consultant at the request of the City. The key personnel for performance of this Agreement are as follows: **Hovik Mirzakhanian**, **Vice President**.

- 3.2.5 <u>City's Representative</u>. The City hereby designates the City Manager, or his or her designee, to act as its representative for the performance of this Agreement ("City's Representative"). City's Representative shall have the power to act on behalf of the City for all purposes under this Contract. The City Manager hereby designates **Patricia A. Vazquez, City Clerk**, or his or her designee, as the City's contact for the implementation of the Services hereunder. Consultant shall not accept direction or orders from any person other than the City's Representative or his or her designee.
- 3.2.6 <u>Consultant's Representative</u>. Consultant hereby designates **Hovik Mirzakhanian, Vice President**, or his or her designee, to act as its representative for the performance of this Agreement ("Consultant's Representative"). Consultant's Representative shall have full authority to represent and act on behalf of the Consultant for all purposes under this Agreement. The Consultant's Representative shall supervise and direct the Services, using his best skill and attention, and shall be responsible for all means, methods, techniques, sequences, and procedures and for the satisfactory coordination of all portions of the Services under this Agreement.
- 3.2.7 <u>Coordination of Services</u>. Consultant agrees to work closely with City staff in the performance of Services and shall be available to City's staff, consultants, and other staff at all reasonable times.
- 3.2.8 Standard of Care; Performance of Employees. Consultant shall perform all Services under this Agreement in a skillful and competent manner, consistent with the standards generally recognized as being employed by professionals in the same discipline in the State of California. Consultant represents and maintains that it is skilled in the professional calling necessary to perform the Services. Consultant warrants that all employees and subconsultants shall have sufficient skill and experience to perform the Services assigned to them. Finally, Consultant represents that it, its employees and subconsultants have all licenses, permits, qualifications and approvals of whatever nature that are legally required to perform the Services and that such licenses and approvals shall be maintained throughout the term of this Agreement. As provided for in the indemnification provisions of this Agreement, Consultant shall perform, at its own cost and expense and without reimbursement from the City, any services necessary to correct errors or omissions which are caused by the Consultant's failure to comply with the standard of care provided for herein. Any employee of the Consultant or its sub-consultants who is determined by the City to be uncooperative, incompetent, a threat to the adequate or timely completion of the Project, a threat to the safety of persons or property, or any employee who fails or refuses to perform the Services in a manner acceptable to the City, shall be promptly removed from the Project by the Consultant and shall not be re-employed to perform any of the Services or to work on the Project.
- 3.2.9 <u>Laws and Regulations</u>. Consultant shall keep itself fully informed of and in compliance with all local, state, and federal laws, rules and regulations in any manner affecting the performance of the Project or the Services, including all Cal/OSHA requirements, and shall give all notices required by law. Consultant shall be liable for all violations of such laws and regulations in connection with Services. If the Consultant performs any work knowing it to be contrary to such laws, rules and regulations, Consultant shall be solely responsible for all costs arising therefrom. Consultant shall defend, indemnify, and hold City, its officials, directors, officers, employees, agents, and volunteers free and harmless, pursuant to the indemnification

provisions of this Agreement, from any claim or liability arising out of any failure or alleged failure to comply with such laws, rules or regulations.

3.2.10 Insurance.

- 3.2.10.1 <u>Time for Compliance</u>. Consultant shall not commence Work under this Agreement until it has provided evidence satisfactory to the City that it has secured all insurance required under this section. In addition, Consultant shall not allow any subconsultant to commence work on any subcontract until it has provided evidence satisfactory to the City that the subconsultant has secured all insurance required under this section.
- 3.2.10.2 <u>Types of Insurance Required</u>. As a condition precedent to the effectiveness of this Agreement for work to be performed hereunder and without limiting the indemnity provisions of the Agreement, the Consultant in partial performance of its obligations under such Agreement, shall procure and maintain in full force and effect during the term of the Agreement, the insurance specified in Exhibit "D" attached hereto and incorporated herein. If the existing policies do not meet the Insurance Requirements set forth herein, Consultant agrees to amend, supplement, or endorse the policies to do so.
- 3.2.10.3 <u>Primary and Non-Contributing Insurance</u>. All insurance coverages shall be primary and any other insurance, deductible, or self-insurance maintained by the indemnified parties shall not contribute with this primary insurance. Policies shall contain or be endorsed to contain such provisions.
- 3.2.10.4 <u>Waiver of Subrogation</u>. Required insurance coverages shall not prohibit Consultant from waiving the right of subrogation prior to a loss. Consultant shall waive all subrogation rights against the indemnified parties. Policies shall contain or be endorsed to contain such provisions.
- 3.2.10.5 <u>Deductible</u>. Any deductible or self-insured retention must be approved in writing by the City and shall protect the indemnified parties in the same manner and to the same extent as they would have been protected had the policy or policies not contained a deductible or self-insured retention.
- 3.2.10.6 Evidence of Insurance. The Consultant, concurrently with the execution of the Agreement, and as a condition precedent to the effectiveness thereof, shall deliver either certified copies of the required policies, or original certificates and endorsements on forms approved by the City. The certificates and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf. At least fifteen (15 days) prior to the expiration of any such policy, evidence of insurance showing that such insurance coverage has been renewed or extended shall be filed with the City. If such coverage is cancelled or reduced, Consultant shall, within ten (10) days after receipt of written notice of such cancellation or reduction of coverage, file with the City evidence of insurance showing that the required insurance has been reinstated or has been provided through another insurance company or companies.

3.2.10.7 <u>Failure to Maintain Coverage</u>. Consultant agrees to suspend and cease all operations hereunder during such period of time as the required insurance coverage is not in effect and evidence of insurance has not been furnished to the City. The City shall have the right to withhold any payment due to the Consultant until Consultant has fully complied with the insurance provisions of this Agreement.

In the event that the Consultant's operations are suspended for failure to maintain required insurance coverage, the Consultant shall not be entitled to an extension of time for completion of the Services because of production lost during suspension.

- 3.2.10.8 <u>Acceptability of Insurers</u>. Each such policy shall be from a company or companies with a current A.M. Best's rating of no less than A:VIII and authorized to do business in the State of California, or otherwise allowed to place insurance through surplus line brokers under applicable provisions of the California Insurance Code or any federal law.
- 3.2.10.9 <u>Insurance for Subconsultants</u>. All Subconsultants shall be included as additional insureds under the Consultant's policies, or the Consultant shall be responsible for causing Subconsultants to purchase the appropriate insurance in compliance with the terms of these Insurance Requirements, including adding the City as an Additional Insured to the Subconsultant's policies.
- 3.2.11 <u>Safety</u>. Consultant shall execute and maintain its work so as to avoid injury or damage to any person or property. In carrying out its Services, the Consultant shall at all times be in compliance with all applicable local, state, and federal laws, rules and regulations, and shall exercise all necessary precautions for the safety of employees appropriate to the nature of the work and the conditions under which the work is to be performed. Safety precautions as applicable shall include, but shall not be limited to: (A) adequate life protection and life-saving equipment and procedures; (B) instructions in accident prevention for all employees and subconsultants, such as safe walkways, scaffolds, fall protection ladders, bridges, gang planks, confined space procedures, trenching and shoring, equipment and other safety devices, equipment and wearing apparel as are necessary or lawfully required to prevent accidents or injuries; and (C) adequate facilities for the proper inspection and maintenance of all safety measures.

3.3 Fees and Payments.

3.3.1 <u>Compensation</u>. Consultant shall receive compensation, including authorized reimbursements, for all Services rendered under this Agreement at the rates set forth i ,Exhibit "C" attached hereto and incorporated herein by reference. The total compensation shall not exceed SEVENY EIGHT THOUSAND ONE HUNDRED EIGHTY-FOUR DOLLARS, THIRTY CENTS \$(78,184.30)

("Total Compensation") without written approval of City's City Manager. Extra Work may be authorized, as described below, and if authorized, will be compensated at the rates and manner set forth in this Agreement.

- 3.3.2 <u>Payment of Compensation</u>. Consultant shall submit to City a monthly itemized statement which indicates work completed and hours of Services rendered by Consultant. The statement shall describe the amount of Services and supplies provided since the initial commencement date, or since the start of the subsequent billing periods, as appropriate, through the date of the statement. City shall, within 45 days of receiving such statement, review the statement and pay all approved charges thereon.
- 3.3.3 <u>Reimbursement for Expenses</u>. Consultant shall not be reimbursed for any expenses unless authorized in writing by City.
- 3.3.4 Extra Work. At any time during the term of this Agreement, City may request that Consultant perform Extra Work. As used herein, "Extra Work" means any work which is determined by City to be necessary for the proper completion of the Project, but which the Parties did not reasonably anticipate would be necessary at the execution of this Agreement. Consultant shall not perform, nor be compensated for, Extra Work without written authorization from the City.
- 3.3.5 Prevailing Wages. Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the Services are being performed as part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is \$1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. City shall provide Consultant with a copy of the prevailing rates of per diem wages in effect at the commencement of this Agreement. Consultant shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the Services available to interested parties upon request and shall post copies at the Consultant's principal place of business and at the project site. It is the intent of the parties to effectuate the requirements of sections 1771, 1774, 1775, 1776, 1777.5, 1813, and 1815 of the Labor Code within this Agreement, and Consultant shall therefore comply with such Labor Code sections to the fullest extent required by law. Consultant shall defend, indemnify, and hold the City, its elected officials, officers, employees, agents, and volunteers free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

3.4 Accounting Records.

3.4.1 <u>Maintenance and Inspection</u>. Consultant shall maintain complete and accurate records with respect to all costs and expenses incurred under this Agreement. All such records shall be clearly identifiable. Consultant shall allow a representative of City during normal business hours to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to the Agreement for a period of three (3) years from the date of final payment under this Agreement.

3.5 General Provisions.

3.5.1 <u>Termination of Agreement</u>.

- 3.5.1.1 Grounds for Termination. City may, by written notice to Consultant, terminate the whole or any part of this Agreement at any time and without cause by giving written notice to Consultant of such termination, and specifying the effective date thereof, at least seven (7) days before the effective date of such termination. Upon termination, Consultant shall be compensated only for those services which have been adequately rendered to City, and Consultant shall be entitled to no further compensation. Consultant may not terminate this Agreement except for cause.
- 3.5.1.2 <u>Effect of Termination</u>. If this Agreement is terminated as provided herein, City may require Consultant to provide all finished or unfinished Documents and Data and other information of any kind prepared by Consultant in connection with the performance of Services under this Agreement. Consultant shall be required to provide such document and other information within fifteen (15) days of the request.
- 3.5.1.3 <u>Additional Services</u>. In the event this Agreement is terminated in whole or in part as provided herein, City may procure, upon such terms and in such manner as it may determine appropriate, services similar to those terminated.
- 3.5.2 <u>Delivery of Notices</u>. All notices permitted or required under this Agreement shall be given to the respective parties at the following address, or at such other address as the respective parties may provide in writing for this purpose:

Consultant:

Matrix Audio Visual Designs, Inc. 2525 W. Burbank Boulevard Burbank, CA 91505

Attn: Hovik Mirzakhanian, Vice President

City:

City of Stanton 7800 Katella Avenue Stanton, CA 90680

Attn: Hannah Shin-Heydorn, City Manager

Such notice shall be deemed made when personally delivered or when mailed, forty-eight (48) hours after deposit in the U.S. Mail, first class postage prepaid and addressed to the party at its applicable address. Actual notice shall be deemed adequate notice on the date actual notice occurred, regardless of the method of service.

- 3.5.3 Ownership of Materials and Confidentiality.
- 3.5.3.1 <u>Documents & Data; Licensing of Intellectual Property</u>. This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans,

specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including, but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subconsultants to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subconsultant prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were prepared by design professionals other than Consultant or provided to Consultant by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

- 3.5.3.2 <u>Confidentiality</u>. All ideas, memoranda, specifications, plans, procedures, drawings, descriptions, computer program data, input record data, written information, and other Documents and Data either created by or provided to Consultant in connection with the performance of this Agreement shall be held confidential by Consultant. Such materials shall not, without the prior written consent of City, be used by Consultant for any purposes other than the performance of the Services. Nor shall such materials be disclosed to any person or entity not connected with the performance of the Services or the Project. Nothing furnished to Consultant which is otherwise known to Consultant or is generally known, or has become known, to the related industry shall be deemed confidential. Consultant shall not use City's name or insignia, photographs of the Project, or any publicity pertaining to the Services or the Project in any magazine, trade paper, newspaper, television or radio production or other similar medium without the prior written consent of City.
- Consultant's proprietary information ("Proprietary Information") unless the City's legal counsel determines that the release of the Proprietary Information is required by the California Public Records Act or other applicable state or federal law, or order of a court of competent jurisdiction, in which case the City shall notify Consultant of its intention to release Proprietary Information. Consultant shall have five (5) working days after receipt of the Release Notice to give City written notice of Consultant's objection to the City's release of Proprietary Information. Consultant shall indemnify, defend, and hold harmless the City, and its officers, directors, employees, and agents from and against all liability, loss, cost or expense (including attorney's fees) arising out of a legal action brought to compel the release of Proprietary Information. City shall not release the Proprietary Information after receipt of the Objection Notice unless either: (1) Consultant fails to fully indemnify, defend (with City's choice of legal counsel), and hold City harmless from any legal action brought to compel such release; and/or (2) a final and non-appealable order by a court of competent jurisdiction requires that City release such information.
- 3.5.4 <u>Cooperation; Further Acts</u>. The Parties shall fully cooperate with one another and shall take any additional acts or sign any additional documents as may be necessary, appropriate or convenient to attain the purposes of this Agreement.
- 3.5.5 <u>Attorney's Fees</u>. If either party commences an action against the other party, either legal, administrative, or otherwise, arising out of or in connection with this Agreement, the prevailing party in such litigation shall be entitled to have and recover from the losing party reasonable attorney's fees and all other costs of such action.

3.5.6 Indemnification.

To the fullest extent permitted by law, Consultant shall defend (with counsel of City's choosing), indemnify and hold the City, its officials, officers, employees, volunteers and agents free and harmless from any and all claims, demands, causes of action, costs, expenses, liability, loss, damage or injury of any kind, in law or equity, to property or persons, including wrongful death, in any manner arising out of, pertaining to, or incident to any alleged acts, errors or omissions, or willful misconduct of Consultant, its officials, officers, employees, subcontractors, consultants or agents in connection with the performance of the Consultant's Services, the Project or this Agreement, including without limitation the payment of all damages, expert witness fees and attorneys fees and other related costs and expenses. Consultant's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by the Consultant or the City, its officials, officers, employees, agents, or volunteers.

If Consultant's obligation to defend, indemnify, and/or hold harmless arises out of Consultant's performance as a "design professional" (as that term is defined under Civil Code section 2782.8), then, and only to the extent required by Civil Code section 2782.8, which is fully incorporated herein, Consultant's indemnification obligation shall be limited to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant, and, upon Consultant obtaining a final adjudication by a court of competent jurisdiction, Consultant's liability for such claim, including the cost to defend, shall not exceed the Consultant's proportionate percentage of fault.

- 3.5.7 <u>Entire Agreement</u>. This Agreement contains the entire Agreement of the parties with respect to the subject matter hereof, and supersedes all prior negotiations, understandings, or agreements. This Agreement may only be modified by a writing signed by both parties.
- 3.5.8 <u>Governing Law</u>. This Agreement shall be governed by the laws of the State of California. Venue shall be in Orange County.
- 3.5.9 <u>Time of Essence</u>. Time is of the essence for each and every provision of this Agreement.
- 3.6 <u>City's Right to Employ Other Consultants</u>. City reserves right to employ other consultants in connection with this Project.
- **3.7** <u>Successors and Assigns</u>. This Agreement shall be binding on the successors and assigns of the parties.
- 3.8 <u>Assignment or Transfer</u>. Consultant shall not assign, hypothecate, or transfer, either directly or by operation of law, this Agreement or any interest herein without the prior written consent of the City. Any attempt to do so shall be null and void, and any assignees, hypothecates or transferees shall acquire no right or interest by reason of such attempted assignment, hypothecation or transfer.
- 3.9 <u>Construction; References; Captions</u>. Since the Parties or their agents have participated fully in the preparation of this Agreement, the language of this Agreement shall be construed simply, according to its fair meaning, and not strictly for or against any Party. Any term

referencing time, days or period for performance shall be deemed calendar days and not work days. All references to Consultant include all personnel, employees, agents, and subconsultants of Consultant, except as otherwise specified in this Agreement. All references to City include its elected officials, officers, employees, agents, and volunteers except as otherwise specified in this Agreement. The captions of the various articles and paragraphs are for convenience and ease of reference only, and do not define, limit, augment, or describe the scope, content, or intent of this Agreement.

- **3.10** <u>Amendment; Modification</u>. No supplement, modification, or amendment of this Agreement shall be binding unless executed in writing and signed by both Parties.
- **3.11** <u>Waiver</u>. No waiver of any default shall constitute a waiver of any other default or breach, whether of the same or other covenant or condition. No waiver, benefit, privilege, or service voluntarily given or performed by a Party shall give the other Party any contractual rights by custom, estoppel, or otherwise.
- **3.12 No Third-Party Beneficiaries.** There are no intended third-party beneficiaries of any right or obligation assumed by the Parties.
- **3.13** <u>Invalidity</u>; <u>Severability</u>. If any portion of this Agreement is declared invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions shall continue in full force and effect.
- 3.14 <u>Prohibited Interests.</u> Consultant maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Consultant, to solicit or secure this Agreement. Further, Consultant warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, City shall have the right to rescind this Agreement without liability. For the term of this Agreement, no member, officer or employee of City, during the term of his or her service with City, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising therefrom.
- 3.15 <u>Equal Opportunity Employment</u>. Consultant represents that it is an equal opportunity employer and it shall not discriminate against any subconsultant, employee or applicant for employment because of race, religion, color, national origin, handicap, ancestry, sex or age. Such non-discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination. Consultant shall also comply with all relevant provisions of City's Minority Business Enterprise program, Affirmative Action Plan or other related programs or guidelines currently in effect or hereinafter enacted.
- **3.16** <u>Labor Certification</u>. By its signature hereunder, Consultant certifies that it is aware of the provisions of Section 3700 of the California Labor Code, which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that Code, and agrees to comply with such provisions before commencing the performance of the Services.

- **3.17** <u>Authority to Enter Agreement.</u> Consultant has all requisite power and authority to conduct its business and to execute, deliver, and perform the Agreement. Each Party warrants that the individuals who have signed this Agreement have the legal power, right, and authority to make this Agreement and bind each respective Party.
- **3.18** Counterparts. This Agreement may be signed in counterparts, each of which shall constitute an original.
- 3.19 <u>Declaration of Political Contributions</u>. Consultant shall, throughout the term of this Agreement, submit to City an annual statement in writing declaring any political contributions of money, in-kind services, or loan made to any member of the City Council within the previous twelve-month period by the Consultant and all of Consultant's employees, including any employee(s) that Consultant intends to assign to perform the Services described in this Agreement.

3.20 Subcontracting.

3.20.1 <u>Prior Approval Required</u>. Consultant shall not subcontract any portion of the work required by this Agreement, except as expressly stated herein, without prior written approval of City. Subcontracts, if any, shall contain a provision making them subject to all provisions stipulated in this Agreement.

[Signatures on following page.]

IN WITNESS WHEREOF, the pon thisday of, 2024.	arties have executed this Professional Services Agreement
CITY OF STANTON	MATRIX AUDIO VISUAL DESIGNS, INC.
By: Hannah Shin-Heydorn City Manager	By: Hovik Mirzakhanian Vice President
ATTEST:	By: Treasurer/Secretary [If Corporation, TWO SIGNATURES, President OR Vice President AND Secretary, AND CORPORATE SEAL OF CONSULTANT REQUIRED]
By:	
APPROVED AS TO FORM:	
By: Best Best & Krieger LLP City Attorney	

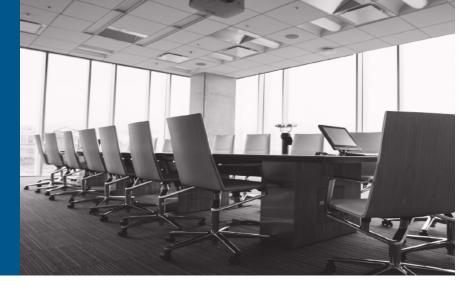
EXHIBIT "A"

SCOPE OF SERVICES

The project scope of work includes installing a comprehensive audio distribution system designed to optimize communication and presentation capabilities.

The following is a summary of services and work.

Scope of Work



We are immensely grateful for the chance to offer our proposed solution to fulfill your AV needs. At Matrix AV, our primary focus is on you, the customer, and we take pride in our commitment to providing you with exceptional service. Our business revolves around delivering cutting-edge Technology Service Solutions, and it's not just a slogan; it's our ethos. Thank you for considering us, and we look forward to serving you with our best possible efforts.

Information worth mentioning.

Notice of Confidentiality:

Please note that the information contained in this communication/proposal is strictly confidential and intended solely for your use. It should not be shared with any third party, including our competitors. We have dedicated significant time, effort, and resources to training, education, and staying up-to-date with the latest technology to deliver the best solutions to our clients.

The drawings, specifications, concepts, designs, and arrangements included herein are the tangible property of Matrix Audio Visual Designs, Inc. They are solely intended for use in the project for which they have been developed and prepared. No part of this material may be copied, disclosed, or used in connection with any other work or project without the express written consent of Matrix Audio Visual Designs, Inc.

By accessing these drawings or specifications, you acknowledge and accept these confidentiality restrictions. Please ensure that all members of your team are aware of these terms and that they comply with them.

Training: At Matrix AV, we believe that training is an essential part of any successful project, regardless of its size or complexity. That's why we are committed to providing tailored training solutions that meet the specific needs of our customers. Whether you have a small or large project, our team will work closely with you to identify your unique training requirements and develop a comprehensive plan to ensure your team is fully equipped to operate and maintain your new system effectively. Our goal is to provide you with a seamless experience from start to finish and beyond.

Source code and configuration files: At Matrix AV, we understand the importance of the source code, configuration files, and other programming components that comprise the audio, video, and control systems we design and install. We believe that our customers should have full ownership of these essential components to ensure they can maintain and upgrade their systems over time. Therefore, we provide our customers with complete access to the source code, configuration files, DSP files, and network topology files associated with their systems. We will work with you to ensure that you have all the information you need to manage your system effectively and provide ongoing support as needed.

Finally, our promise to you

At Matrix AV, we are committed to providing our customers with exceptional service and expertise. Our promise to you includes conducting ourselves in a professional and respectful manner at all times. We only use reputable manufacturers from the AV and IT industries who stand behind their products, ensuring that you receive a professionally designed and installed system that meets your specific needs.

We are committed to an unbiased decision-making process when selecting equipment, and we always strive to be truthful and accurate in all aspects of our work. Our team is dedicated to staying up-to-date with the latest advancements in technology and continuing to improve our technical knowledge and skills.

Finally, we are committed to educating the public about the AV industry and the benefits of implementing high-quality audio and visual solutions in various settings. Our goal is to provide you with a reliable, efficient, and cost-effective system that enhances your operations and exceeds your expectations.

EXHIBIT "B"

SCHEDULE OF SERVICES

Services and work shall begin promptly at the start of the term of this Agreement estimated per the following attachment.

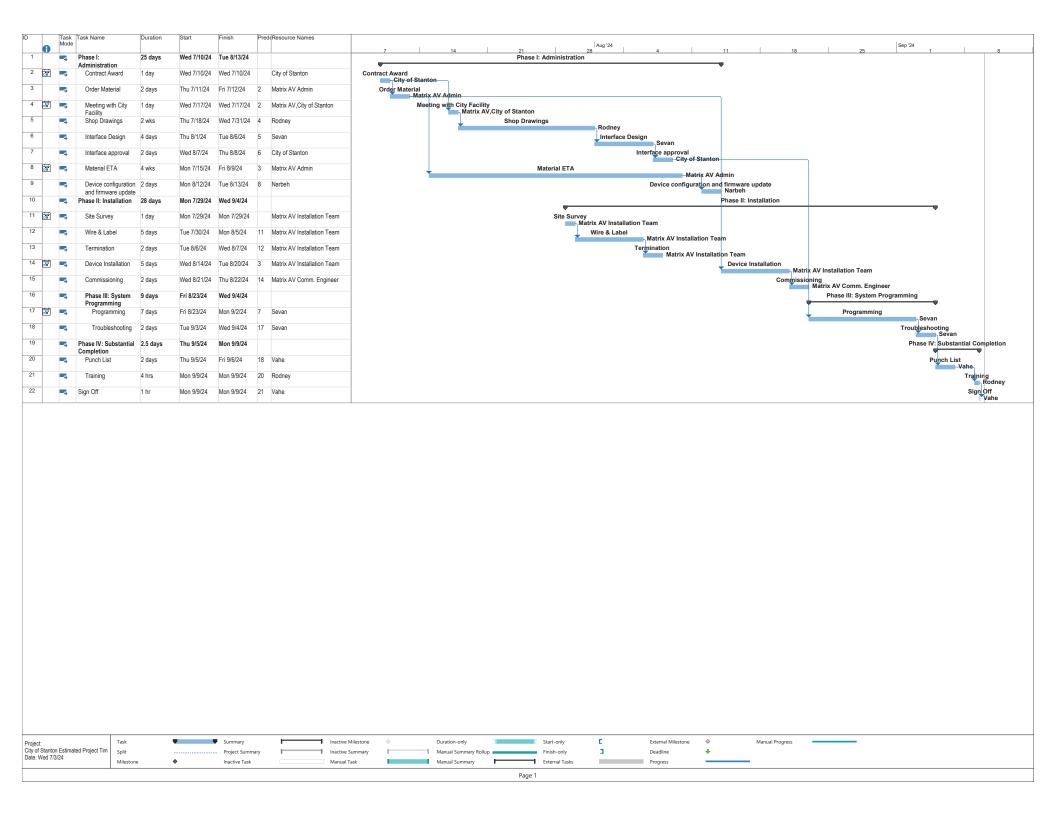


EXHIBIT "C"

COMPENSATION

Project fees based on the Scope of Services outlined in Exhibit "A" shall include one year of standard warranty for parts and labor, excluding batteries and other consumable items.

Total fees shall also include the optional Silver Level Services Agreement which includes one year of quarterly maintenance, cleaning, projector filter cleaning, checking all wires and connectors are snug, confirmation of system operation, performing major firmware updates

Project Summary	
Equipment:	\$38,754.01
Miscellaneous:	\$1,937.69
Sales Tax:	\$3,560.52
Electronic Waste Fee:	\$4.00
Shipping:	\$388.00
Labor:	\$28,281.50
Bond:	\$1,546.58
Grand Total:	\$74,472.30
Sales tax is calculated based on the current sales ta	x and it is subject to change
Payment Schedule	Amount
Inital Deposit	\$33,512.54
Progress Payment - 50% progress	\$3,723.62
Final Payment	\$37,236.14
performing major firmware updat agreement detail. Period of perfor	es, Minor repairs. See our extended service level mance: One Year.
	Contractor of the contractor o
Client: City of Stanton	Contractor: Matrix Audio Visual Designs, Inc. CSLB #: 765990
	Hovik Mirzakhanian
Name:	Name:
Date	Date

EXHIBIT "D"

INSURANCE REQUIREMENTS

Certificate holder on Certificate of Insurance shall be stated as follows:

City of Stanton

7800 Katella Avenue

Stanton, CA 90680

Required insurance policies shall not be in compliance if they include an endorsement with any limiting provision (e.g., to contractual liability, "ongoing operations," or the "sole" liability of Consultant) or exclusion (e.g., cross-liability) contrary to the Agreement, unless such endorsements are approved by the City. Endorsements shall read as follows:

Additional Insured:

- City of Stanton its elected and appointed officials, officers, employees, agents, and volunteers shall be additional insureds with regard to liability and defense of suits or claims arising out of the performance of the Agreement. OR
- Any person or organization as required by written agreement/contract. (Blanket coverage)

[Note: Use Insurance Services Office (ISO) form CG 20 26 04 13, or a form at least as broad.]

Primary and Non-Contributory:

• It is agreed that any insurance or self-insurance maintained by the City of Stanton shall apply in excess of, and not contribute with, insurance provided by this policy.

[Note: Use ISO form CG 20 01 04 13, or a form at least as broad.]

Waiver of Subrogation:

• We [the insurer] waive any right of recovery we may have against the City of Stanton because of payments we make for injury or damage arising out of you ongoing operations or "your work" done under a contract with that person or organization and included in the "products-completed operations hazard".

[Note: Use ISO form CG ______, or a form at least as broad.]

Commercial General Liability

Coverato the l	age shall be at least as broad as ISO Form CG 0001. Defense costs shall be paid in addition limits.
	A.M. Best Rating; A-/VIII minimum
	Additional Insured Endorsement with policy # indicated
	Primary Non-Contributory Endorsement with policy # indicated
	Waiver of Subrogation Endorsement with policy # indicated
	\$1,000,000 limit per occurrence
	\$2,000,000 aggregate per project
	Self-Insured Retention information (Must be declared on certificate of insurance when applicable – waiver and current audited financial report required if over \$50,000)
<u>Auton</u>	nobile Liability
Covera	age shall be at least as broad as ISO Form CA 0001.
	A.M. Best Rating; A-/VIII minimum
	Additional Insured Endorsement with policy # indicated
	Primary Non-Contributory Endorsement with policy # indicated
	Waiver of Subrogation Endorsement with policy # indicated
	Shall cover "Any Auto" (unless otherwise exempted by the City)
	\$1,000,000 limit per occurrence
	Self-Insured Retention information (Must be declared on certificate of insurance when applicable – waiver and current audited financial report required if over \$50,000)
<u>Work</u>	ers' Compensation/Employers' Liability
	A.M. Best Rating; A-/VIII minimum
	Waiver of Subrogation Endorsement with policy # indicated
	"Statutory" is checked for Workers' Compensation
	\$1,000,000 limit per occurrence for Employers' Liability

Professional Liability

Covered professional services shall specifically include all work to be performed under the Agreement and delete any exclusions that may potentially affect the work to be performed. If coverage is written on a claims-made basis, the retroactive date shall precede the effective date of the initial Agreement and continuous coverage will be maintained or an extended reporting period will be exercised for a period of at least three (3) years from termination or expiration of this Agreement.

	A.M. Best Rating; A-/VIII minimum
	Waiver of Subrogation Endorsement with policy # indicated
	\$1,000,000 per occurrence
	\$1,000,000 aggregate
	Self-Insured Retention information (Must be declared on certificate of insurance when applicable – waiver and current audited financial report required if over \$50,000)
Techno	ology Errors & Omissions
Not app	plicable.
Cyber/	Network Security & Privacy Liability
Not app	plicable.
Sexual	Misconduct
Not app	plicable.
Emplo	yee Dishonesty & Crime
Not app	plicable.

Item: 12A

Click here to return to the agenda.

CITY OF STANTON

REPORT TO CITY COUNCIL

TO: Honorable Mayor and Members of the City Council

DATE: July 9, 2024

SUBJECT: ADOPT THE 2024 SEWER MASTER PLAN UPDATE AND APPROVE THE

SEWER SYSTEM MANAGEMENT PLAN UPDATE

REPORT IN BRIEF:

A Sewer Master Plan assesses the capacity and condition of the City's sewer collection system incorporating updated housing element information and provides recommendations to address deficiencies. It is a valuable planning tool for the City's Capital Improvement Program and managing the sewer system for future development. Furthermore, the City's General Waste Discharge Requirements Order No. 2006-003 mandates the development and implementation of a Sewer System Management Plan.

RECOMMENDED ACTION:

- 1. City Council declare this action to be categorically exempt under the California Environmental Quality Act, Section 15378(b)(5) (Organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment); and
- 2. Adopt the 2024 Sewer Master Plan Update.

BACKGROUND:

At its meeting on January 11, 2022, the City Council approved the award of a Professional Services Agreement with NV5 to provide an updated Sewer Master Plan in the amount of \$499,265.

At its meeting on May 9, 2023, the City Council approved a First Amendment to the Professional Services Agreement with NV5 to fund additional services, increasing the contract amount to \$838,986.

The City currently operates and maintains a sewer collection system that serves 3.1 square miles of the City and portions of the adjacent cities of Anaheim and Garden Grove discharges into the Orange County Sanitation District (OCSD). This network of sanitary sewers serves approximately 39,000 residents and is comprised of over 50 miles of sewer

pipes ranging in size from 6 inches to 24 inches in diameter with approximately 1,100 manholes. The sewer system has 14 inverted siphons that are used to cross existing stormwater channels.

The City is a member agency of the OCSD, which provides wastewater service to the City. In 2013, the City completed its Sewer Master Plan Update. Since that time, new legislation and associated requirements have impacted wastewater generation and sewer master planning. California Senate Bill 7 (Water Conservation Act of 2009) and California's recent addendum to the General Waste Discharge Requirements (GWDR), known as Sanitary Sewer Order 2006-0003, prescribe required activities for the operation, maintenance, and expansion of sewerage collection systems. This amendment to the State's GWDR is in response to the Federal Capacity, Management, Operations and Maintenance (CMOM) initiative mandated through the Environmental Protection Agency. Each State was required to adopt the federal program or develop its own to comply with all CMOM components. The basic components required by the adopted California Order to comply with CMOM are within the proposed 2024 Sewer Master Plan Update.

The overall goal of implementing a Sewer Master Plan is to evaluate the existing condition of the sewer system, ensure adequate capacity exists to effectively collect and transport sewage generated in the City, and identify and plan for needed capital improvements to the system. The plan also helps to ensure that the City remains compliant with new and constantly changing State regulations related to sewer system management and ensure there is adequate capacity for future development.

ANALYSIS/JUSTIFICATION:

NV5 has completed the 2024 Sewer Master Plan Update and found that overall, the City's sewer system has sufficient capacity. It also describes the negligible impact of additional wastewater flow from Accessory Dwelling Units (ADUs) and discusses how the Master Plan Update accounted for the additional flow that would be generated by new housing units required to meet the City's Regional Housing Needs Allocation (RHNA). Additionally, the pipeline condition assessment summarized that approximately 35% of sewer pipelines require improvements such as point repairs, rehabilitation or replacement. The following sewer improvement projects are recommended to be constructed over the next 10 years:

CIP No.	Street	Description	Total Cost (\$2024)
CIP-001	Various	Sewer Point Repair Program (Severity E)	\$600,000
CIP-002	Via Kannela, Via Irana	Replace 1,509 LF of 8" concrete sewer pipes (Severity E)	\$1,600,000
CIP-003	Beach Boulevard	Replace 335 LF of 10" VCP sewer pipe (Severity E)	\$420,000
CIP-004	Cerritos Avenue	Replace 527 LF of 8" VCP sewer pipes (Severity E)	\$600,000
CIP-005	Various	Sewer Point Repair Program (Severity D)	\$1,480,000
CIP-006	Various	Sewer Pipeline Replacement and Rehabilitation Program (Severity D)	\$12,500,000
CIP-007	Various	Sewer Manhole Replacement and Rehabilitation Program	\$1,700,000
		Total	\$18,900,000

The City understands its responsibility to address infrastructure needs with long range planning efforts. By reviewing its existing sanitary sewer system and focusing on future needs, the City can continue to maintain a high level of service and reliability in its sewer system in a cost effective and fiscally responsible manner. The 2024 Sewer Master Plan Update has been developed to assist the City in achieving these objectives. The City is in the process of selecting a consultant to perform a sewer rate study.

FISCAL IMPACT:

There is no fiscal impact associated with the recommended action; however, the implementation of the plan will have a substantial fiscal impact. The estimated cost to implement all future projects recommended for the Capital Improvement Program totals \$18,000,000. This cost would primarily be absorbed by the Sewer Maintenance Fund n

\$16,900,000. This cost would primarily be absorbed by the Sewer Maintenance Fund
(#501) and Sewer Capital Improvement Fund (#502) through the assessment of future
sewer service charges to the City's customers. If approved, the 2024 Sewer Master Plan
will be included in the City's cost of sewer system costs during the completion of the multi
year sewer service rate study planned for Fiscal Year 2024-25.

LEGAL REVIEW:

ENVIRONMENTAL IMPACT:

None.

None.

PUBLIC NOTIFICATION:

Notifications and advertisement were performed as prescribed by law.

STRATEGIC PLAN OBJECTIVES:

Obj. No. 3: Provide a quality infrastructure.

Obj. No. 6: Maintain and promote a responsive, high-quality, and transparent government.

Prepared by: Cesar Rangel P.E., Director of Public Works/City Engineer

Fiscal Impact Reviewed by: Michelle Bannigan, Finance Director

Approved by: Hannah Shin-Heydorn, City Manager

ATTACHMENT:

A. Draft 2024 Sewer Master Plan

Attachment: A

Click here to return to the agenda.

CITY OF STANTON SEWER MASTER PLAN UPDATE - DRAFT 2024

Prepared For:

CITY OF STANTON

Public Works Director/City Engineer 7800 Katella Avenue Stanton, CA 90680









N|V|5

15092 Avenue of Science, Suite 200 San Diego, CA 92128

PROJECT NUMBER 227522-00001381.00

TABLE OF CONTENTS

Execut	ive Sur	nmaryE	S-:
1.0	Introdu	uction	2
1.1 1.2 1.3 1.4 1.5	Bacl Rep Reg Envi	er Master Plan Purpose / Objectives	2 4 5
2.0	Study	Area	6
2.1	Stud	ly Area Overview	6
2 2 2	.1.1 .1.2 .1.3 .1.4	Topographical Description	7
2.2		nge County Flood Control District Facilities	
2.3 2.4		len State Water COMPANY Facilitiesof Stanton Tributary Sewer Basins	
2.5	•	d Use	
2	.5.1	Residential Land Use	. 18
	5.2	General Commercial Land Use	. 18
	.5.3	Mixed - Use	
	.5.4	Industrial Land Use Open Space Recreation	
	.5.5 .5.6	Public / Institutional	
3.0	_	ary of Wastewater Assets	
3.1		stewater Collection System	
3.2		ection System Characteristics	
3.3	Was	steWater Collection System Siphons	.26
3.4		ragency Flow Locations	
3.5		nderbird Lane Relief Sewer	
4.0		water Generation Analysis	
4.1	Flow	v Monitoring	
4	.1.1	Metered Basins	.33
4.2	Was	stewater Generation Rates	.34
4	.2.1	Recommended Wastewater Generation Rates	.35
4.3 4.4		act of Accessory Dwelling UnitsIA Units	
5.0	Sewer	Design Criteria	.37
5.1 5.2		ign Criteria Background/ity Sewer Design Criteria	
6.0		ulic Model Update	
	-	·	
6.1 6.2		kgroundhodology	

6.3 Limitations of Hydraulic Modeling	
6.4.1 Hydraulic Model Elements	
6.5 Wastewater Load Allocation	
6.5.1 Schools	
6.5.2 Outside Agencies	
6.5.3 Planned Projects	
6.6 Model Calibration	47
6.6.1 Dry Weather Flow Calibration	
6.6.2 Wet Weather Flow Loading and Calibration	
6.7 Peaking Factors	
7.0 Hydraulic / Capacity Analysis	
7.1 Evaluation Criteria	
7.2 Capacity Analysis	
7.3.1 Peak Dry Weather Flow (PDWF) Conditions	
7.3.2 Peak Wet Weather Flow (PWWF) Conditions	
7.4 Recommendations for Pipelines with Capacity Deficiencies	
8.0 Pipeline Condition Assessment	
8.1 Background	58
8.2 Inspection and Assessment	58
8.2.1 Inspection Criteria and Procedures	58
8.3 Pipeline Condition Assessment Summary	60
9.0 Operation and Maintenance Program	64
9.1 Background	64
9.2 Ownership and Maintenance	
9.3 Summary of Operation and Maintenance Program	
9.3.1 Review of Cleaning/Preventive Maintenance Program	
9.4 Summary of Inspection and Assessment Program	
9.4.1 Pipeline Inspection Criteria and Documentation Procede 9.4.2 Documentation of Inspection Findings	
9.5 Condition Assessment of Manholes	
10.0 Capital Improvement Program (CIP)	
10.1 Cost Development	
10.1.1 Unit Construction Costs	_
10.1.3 Costs for Design, Construction Management and Admin	
10.2 CIP Projects	
10.2.1 Criteria for CIP Projects	
10.2.2 Recommended CIP Projects	
10.3 Summary of CIP Costs	74

LIST OF TABLES

Table 2-1 OCFCD Storm Drain Channels	9
Table 2-2 Land Use Composition	16
Table 3-1 Wastewater Collection System by Pipe Diameter	20
Table 3-2 Wastewater Collection System by Pipe Material	22
Table 3-3 Locations of Flow Diversions	24
Table 3-4 Wastewater Collection System Siphons	26
Table 3-5 Interagency Inflow Locations	28
Table 4-1 Flow Monitoring Locations	
Table 4-2 Flow Monitoring Locations and Flows	35
Table 4-3 Recommended Wastewater Unit Generation Rates	36
Table 5-1 Design Criteria – Gravity Sewers	38
Table 6-1 School Loads	43
Table 6-2 Summary of Average Dry Weather Flows from Anaheim and Garden Grove	45
Table 6-3 Planned Projects	46
Table 6-4 Dry and Wet Weather Peaking Factors	49
Table 7-1 Pipelines Not Meeting Evaluation Criteria for Dry Weather Conditions	54
Table 7-2 Pipelines Not Meeting Evaluation Criteria for Wet Weather Conditions	54
Table 8-1 Pipeline Condition Severity Rating	59
Table 8-2 Pipeline Condition Assessment Severity Criteria	59
Table 8-3 Preliminary Recommendation Criteria	60
Table 8-4 Pipelines Inspected	61
Table 8-5 Condition Assessment - Severity Ratings Summary	61
Table 8-6 Condition Assessment - Preliminary Recommendations Summary	62
Table 10-1 Pipeline Replacement Unit Costs	70
Table 10-2 Rehabilitation Unit Costs	71
Table 10-3 Manhole Unit Costs	71
Table 10-4 Capital Improvement Program (CIP) Cost Summary	74

LIST OF FIGURES

Figure 1-1 City of Stanton Overview	3
Figure 2-1 Soil Type	8
Figure 2-2 OCSD Drainage Basins and Facilities	14
Figure 2-3 General Plan Land Use	17
Figure 3-1 Wastewater Collection System by Pipe Diameter	21
Figure 3-2 Wastewater Collection System by Pipe Material	23
Figure 3-3 Locations of Flow Diversions	25
Figure 3-4 Wastewater Collection System Siphons	27
Figure 3-5 Interagency Inflow Locations	29
Figure 4-1 Location of Temporary Flow Meters	32
Figure 6-1 Elements of the Hydraulic Model	41
Figure 6-2 Average Dry Weather Diurnal Curves	47
Figure 6-3 Calibrated Diurnal Curve	48
Figure 7-1 Planned Developments	52
Figure 7-2 Vacant Parcels	53
Figure 7-3 Hydraulic Deficiencies for Peak Dry Weather Conditions	56
Figure 7-4 Hydraulic Deficiencies for Peak Wet Weather Conditions	57
Figure 8-1 Condition Assessment – Severity Rating Summary	61
Figure 8-2 Condition Assessment – Preliminary Recommendations Summary	62
Figure 8-3 Condition Assessment – Preliminary Recommendations and Severity Ratings	63
Figure 9-1 Owner and Maintenance Responsibilities	67
Figure 9-2 High Frequency Maintenance Locations	68

APPENDICES

- **Appendix 1 City of Stanton Planned Developments**
- Appendix 2 Vacant Parcels
- Appendix 3 Capacity Analysis Model Results
- Appendix 4 Condition Assessment Findings and Preliminary Recommendations
- **Appendix 5 Cooperative Sanitary Sewer Agreement**
- **Appendix 6 High Frequency Maintenance Locations**
- Appendix 7 Capital Improvement Program (CIP) Projects
- Appendix 8 Projected Capital Improvement Program (CIP) Expenditures

ABBREVIATIONS AND ACRONYMS

AC Acres

ADWF Average Dry Weather Flow AMSL Above Mean Sea Level

BMP Best Management Practices
CCTV Closed Circuit Television

CEQA California Environmental Quality Act

CFS Cubic Feet per Second

CIP Capital Improvement Program

City City of Stanton
County County of Orange

CWEA California Water Environment Association

d/D Depth of flow over pipe diameter

Dia Diameter

DIP Ductile Iron Pipe
D/S Downstream
DU Dwelling Units

EDU Equivalent Dwelling Units
EIR Environmental Impact Report

FAR Floor Area Ratio

Ft Feet

FPS Feet Per Second

GIS Geographical Information System

GC General Commercial

GGSD Garden Grove Sanitary District
GPCD Gallons Per Capita Per Day

GPD Gallons Per Day
GPM Gallons Per Minute
H₂S Hydrogen Sulfide

HDR High Density Residential

HFML High Frequency Maintenance Location

Hp Horsepower
Hwy Highway
I-5 Interstate 5
ID Identification

I&I Inflow and Infiltration

NV5

In Inches

LDR Low Density Residential
MDR Medium Density Residential
MGD Million Gallons per Day

NASSCO National Association of Sewer Service Companies

O&M Operations and Maintenance

OCFCD Orange County Flood Control District

OCPW Orange County Public Works

OCSD Orange County Sanitation District

OS Open Space

PACP Pipe Assessment and Certification Program

PDWF Peak Dry Weather Flows

PVC Polyvinyl Chloride

PWWF Peak Wet Weather Flow

QA/QC Quality Assurance and Quality Control SSMP Sanitary Sewer Management Plan

SSO Sanitary Sewer Overflow

SWRCB State Water Resources Control Board

Unk Unknown U/S Upstream

VCP Vitrified Clay Pipe

WDRs Waste Discharge Requirements

WAMPSS West Anaheim Master Plan of Sewer System

EXECUTIVE SUMMARY

This Sewer Master Plan Update (Master Plan Update) evaluates the City of Stanton's (City's) existing and future wastewater collection (sewer) system infrastructure needs over a 10-year planning horizon and updates the City's Capital Improvement Program (CIP). Evaluation of the capacity and condition of the City's sewer collection system included updating the hydraulic model with planned development projects and reviewing Closed Circuit Television (CCTV) videos of the pipelines. A summary of each chapter as well as key findings are presented below:

Chapter 1 - Introduction

This introductory chapter describes the purpose, objective, and organization of the Master Plan Update, provides background information about the City's existing sewer system, and gives an overview of regulatory requirements.

Chapter 2 - Study Area

Chapter 2 describes the Master Plan Update study area and provides information regarding topography, soils, geology, climate, population, other existing utilities, sewer basins, and land use.

The study area, the City of Stanton, is a built-out urban suburb that consists of mostly residential, mixed-use, commercial, and industrial land. It is experiencing revitalization in its redevelopment and continues its effort to maximize the development of vacant and underutilized land. It had a population estimate of 38,914 persons in 2023 and has a population forecast of 41,300 persons for 2035. Neighboring cities include Anaheim and Buena Park to the north, Garden Grove and Anaheim to the east, Westminster to the south and Garden Grove and Cypress to the west.

The City's wastewater collection system is located within the Orange County Sanitation District's (OCSD's) Service Area 3 and the majority wastewater from the City's system flows directly into OCSD's wastewater collection system. The City also discharges a small amount of wastewater into Garden Grove and Anaheim sewers, which ultimately flows into OCSD's system as well.

Chapter 3 - Summary of Wastewater Assets

Chapter 3 describes the City's wastewater facilities, which include a network of gravity sewers, manholes, cleanouts, and siphons. Information pertaining to the characteristics of the existing wastewater collection system was obtained primarily from the City's Geographic Information System (GIS).

Most of the City's wastewater collection system was likely constructed during the 1950s and 1960s and consists predominantly of Vitrified Clay Pipe (VCP) gravity sewer pipelines. The aging system has approximately 50.5 miles of pipelines and approximately 1,100 manholes. Pipe diameters range between 6- and 24-inches, with the majority being 8-inches. The system also has 14 inverted siphons that are used to cross existing stormwater facilities.

The City's system also conveys a substantial amount of wastewater from the Cities of Anaheim and Garden Grove which flow into the City's sewer system at twenty-three (23) locations.

Chapter 4 - Wastewater Generation Analysis

Chapter 4 describes the temporary flow monitoring of existing wastewater flows and the methodology used to estimate wastewater generation rates. It also describes the insignificant impact of additional wastewater flow from Accessory Dwelling Units (ADUs) and discusses how the Master Plan Update accounted for the additional flow that would be generated by new housing units required to meet the City's Regional Housing Needs Allocation (RHNA).

Recommended wastewater unit generation rates are listed below in Table ES-1 for each land use designation.

Table ES-1 Recommended Wastewater Unit Generation Rates

Land Use Designation	Max Density	Recommended Unit Rate		
Land Use Designation	(DU/Acre)	GPD/DU	GPD/Acre	
Low Density Residential, LDR	6	250	1,440	
Medium Density Residential, MDR	11	200	1,750	
High Density Residential, HDR	18	200	3,000	
General Mixed-Use, GMU, GLMX ²	45 (67³)	200	-	
North Gateway Mixed-Use, North, NGMX ²	45 (90³)	200	-	
South Gateway Mixed-Use, South, SGMX ²	60 (90³)	200	-	
Town Center Mixed-Use, Town ²	60 (90³)	200	-	
General Commercial, GC	N/A	N/A	2,000	
Industrial, I	N/A	N/A	700	
Public/Institutional, PI	N/A	N/A	2,000	
Open Space/Recreational, OS ¹	N/A	N/A	0	
School ⁴	N/A	N/A	N/A	

Note:

 $^{{}^{1}\,\}text{Generation rate for OS was reduced from previous master plan as it was not included in the hydraulic analysis.}$

 $^{^{\}rm 2}$ For mixed-use zones, use parcel specific land use unit rate or dwelling unit generation rate.

³ 50% bonus permitted for affordable housing.

⁴ For schools, use rate of 15 gpd/student.

Chapter 5 - Sewer Design Criteria

Chapter 5 describes the design criteria used to evaluate the City's gravity sewer collection system, which is summarized below in Table ES-2.

Criteria for All Pipes Pipeline Roughness Coefficient n = 0.013Maximum d/D Ratio (PWWF), All Pipe Diameters 0.82 **Criteria for Existing Pipes** Maximum d/D Ratio (PDWF), All Pipe Diameters 0.62 Criteria for New or Upsized Pipes Maximum d/D Ratio (PDWF), Diameter ≤ 15-inches 0.50 Maximum d/D Ratio (PDWF), Diameter ≥ 18-inches 0.62 Minimum Pipeline Diameter 8-inches Minimum Pipeline Velocity at PDWF1 2 feet per second

Table ES-2 Design Criteria - Gravity Sewers

Chapter 6 - Hydraulic Model Update

Chapter 6 includes a description of the hydraulic model update including an overview of the hydraulic model, model development, flow allocation, calibration, and peaking factors.

The City's existing hydraulic model was updated for this Master Plan Update using InfoSewer hydraulic modeling software. This included corrections and updates to the model network based on GIS data, available record drawings, CCTV inspections, input from City personnel, and field verifications performed by City staff. Wastewater flows were re-allocated to model manholes based on land use areas and the recommended wastewater generation rates listed in Chapter 4. Flows were also allocated specifically for schools, planned development projects, and incoming wastewater from Anaheim and Garden Grove.

The updated model was calibrated based on the wastewater flow monitoring data for both dry weather and wet weather flow conditions such that simulated and recorded wastewater flows matched to within a reasonable level of accuracy. Based on an analysis of the flow monitoring data, the following peaking relationships were selected and applied in the model:

- Peak Dry Weather Flow (PDWF) = 1.60 x Average Dry Weather Flow (ADWF)
- Peak Wet Weather Flow (PWWF) = 1.40 x Peak Dry Weather Flow (PDWF)

¹ Minimum pipeline velocity criteria shall be adhered to when feasible

Chapter 7 - Hydraulic / Capacity Analysis

Chapter 7 describes the hydraulic (capacity) analysis of the existing sewer system for existing and future flow conditions and provides recommendations for pipelines identified as hydraulically deficient. Tables ES-3 and ES-4 below show the four pipeline segments that did not meet the evaluation criteria for dry weather and wet weather flow conditions.

Existing PDWF Future PDWF Length Diamete Pipe ID Slope **Total Flow** Velocity **Total Flow** Velocit r (in) (ft) d/D d/D (mgd) (ft/s) (mgd) y (ft/s) 1012-1001 15 -0.006 0.81 1.02 1.00 0.85 1.07 1.00 W003-W002 364 0.002 0.64 8 0.26 1.69 0.26 1.69 0.64 W004-W003 8 360 0.002 0.25 1.68 0.62 0.25 1.68 0.62 W005-W004 8 338 0.002 0.25 1.68 0.62 0.25 1.68 0.62

Table ES-3 Pipelines Not Meeting Evaluation Criteria for Dry Weather Conditions

T-1-1- FO 4 Disc-11	. N+ N.A	O	/-+ \	
I ania FN-4 Pinalinas	s Not Meeting Evaluation	nn i 'riteria tor w	iat waathar i 'an	MITIANE
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				Ð	disting PWV	VF	F	uture PWW	F
Pipe ID	Diameter (in)	Length (ft)	Slope	Total Flow (mgd)	Velocity (ft/s)	d/D	Total Flow (mgd)	Velocity (ft/s)	d/D
1012-1001	15	9	-0.006	1.13	1.43	1.00	1.19	1.51	1.00
W003-W002	8	364	0.002	0.36	1.59	1.00	0.36	1.59	1.00
W004-W003	8	360	0.002	0.35	1.77	0.82	0.35	1.77	0.82
W005-W004	8	360	0.002	0.35	1.77	0.82	0.35	1.77	0.82

Recommendations for each deficient pipe segment are provided below.

<u>Pipe I012-I001:</u> Available data indicates that this 15-inch pipe segment has a reverse slope. NV5 recommends that the City survey this pipe segment and adjacent segments to verify pipeline elevations and updating the hydraulic model.

Pipes W003-W002, W004-W003, and W005-W004:

NV5 recommends that the City conduct flow monitoring upstream and downstream of these 8-inch pipe segments, at Manholes W005 and W002, to verify this capacity deficiency for existing conditions and that the City survey all manholes to verify pipeline elevations. Future flow projections for these shared sewer segments should also be verified with the Garden Grove Sanitation District with consideration for future developments within the City of Garden Grove. Following these tasks, the hydraulic model should be updated and the pipeline should be reevaluated to determine if the pipeline is hydraulically deficient and needs to be replaced with a larger pipeline. If required, replacement costs would be shared between the City and the Garden Grove Sanitation District per the joint-use agreement.

NV5 also recommends that the City closely monitor these pipe segments to determine if there are any corresponding operations and maintenance issues with the identified capacity deficiencies.

Chapter 8 - Pipeline Condition Assessment

Chapter 8 provides a summary of the pipeline condition assessment performed for this Master Plan Update including inspection procedures, assessment criteria, severity ratings, and preliminary recommendations.

Approximately 47 miles of sewer pipeline were inspected between August 2022 and April 2024. The remaining portion of the system that was not inspected, approximately 3 miles, consists primarily of pipelines that are owned or maintained by other agencies, pipelines in private easements, and newly constructed pipelines. CCTV Video inspections were performed by National Plant Services (NPS). Standard observations and severity ratings were documented on video inspection logs. Observations included the various locations of sewer mains with noted deficiencies. The inspection logs were independently reviewed by NV5 and each observation was assessed for its severity to assist in determining rehabilitation recommendations. For each pipe segment inspected, the video inspection log for each pipeline was analyzed by NV5 and rated to indicate the overall severity of the pipeline condition using a scale of "A" through "E", with "A" being a good condition and "E" being a failing condition. Using the applicable observations and assigned severity rating, a preliminary recommendation for each pipeline segment was provided. Table ES-5 provides a summary of the assigned pipeline condition severity ratings based on the length of pipe inspected.

Table ES-5 Condition Assessment - Severity Ratings Summary

	Severity Ratings			Severity Ratings					Total
	A	В	С	D	E	Total			
Length (Miles)	7.8	15.4	16.9	5.7	1.4	47.2			
Percent by Length	16.5%	32.6%	35.8%	12.1%	3.0%	100.0%			

Table ES-6 provides a summary of the preliminary recommendations provided based on length of pipe inspected.

Table ES-6 Condition Assessment - Preliminary Recommendations Summary

Preliminary Recommendation	Length (Miles)	Percentage
No Action	12.8	27.1%
Clean	15.1	32.0%
Clean and CCTV	1.1	2.3%
Root Treatment	1.8	3.8%
Rehabilitate (Lining)	8.6	18.2%
Point Repair	5.4	11.4%
Replace	2.4	5.1%
Total	47.2	100%

Based on the preliminary recommendations, approximately 38 percent of the pipelines inspected will benefit from thorough maintenance / cleaning, while approximately 35 percent require improvements including point repairs, rehabilitation, and replacement.

Chapter 9 – Operation and Maintenance Program

Chapter 9 presents an overview and a review of the City's Operation and Maintenance (0&M) Program for its wastewater collections system including preventative maintenance (cleaning), inspection, and assessment. It also discusses the joint-use agreement between the City and the Garden Grove Sanitary District for shared operation and maintenance responsibilities.

The City's O&M program is administered by the City's Public Works Department which is responsible for ensuring the implementation of City and regulatory agency policies and procedures. To minimize and prevent system blockages that can lead to sewer system overflows (SSOs) the City's O&M Program includes contracting outside services to perform routine cleaning of the collection system. This includes attention to locations that have been identified as High Frequency Maintenance Locations (HFMLs). The HFMLs include approximately 139 pipelines that have been identified as having reoccurring problems and which require more frequent maintenance and cleaning. Contracted crews clean HFMLs on a quarterly basis. The City plans to develop and refine an appropriate schedule and target for cleaning its system.

The City does not currently have a formally established CCTV Inspection and Assessment Program for sewer pipelines and manholes but employed CCTV technology for the inspection of system pipelines in 2009 and 2022/2024 for the preparation of master plan updates. It is recommended that the City consider development and implementation of an inspection program to inspect the condition of its gravity sewers on a 5-year cycle and to use the information obtained during implementation of its operations and maintenance program for identifying and prioritizing projects for the necessary improvements.

It is also recommended that the City consider development and implementation of a formal manhole inspection and assessment program to identify and prioritize manhole rehabilitations and replacements. Manholes should also be visually inspected during either maintenance and/or annual cleaning of the pipelines, information be documented, and defects noted for tracking and reporting purposes.

Chapter 10 – Capital Improvement Program (CIP)

This chapter presents a proposed 10-year Capital Improvement Program (CIP) for improving the City's wastewater collection (sewer) system based on the findings of the evaluations performed for development of the Sewer Master Plan Update and includes development of a preliminary opinion of probable cost, recommended CIP projects, and a summary of CIP Costs.

Recommended CIP projects were developed based on the findings and preliminary recommendations of the sewer pipeline condition assessment discussed in Chapter 8 and input from City staff. The general criteria for development of CIP projects for sewer pipelines was to first address pipeline segments rated with a failing ("E") condition severity as these segments have severe defects that require more immediate attention. Some pipeline segments rated with a poor ("D") condition severity were grouped together with severity "E" replacement segments or included as separate projects.

NV5 also recommends that all pipeline segments rated with a "D" or "E" condition severity be cleaned and inspected annually using CCTV technology until critical defects are addressed by CIP projects or by City operations and maintenance efforts. This should include pipeline segments assigned a "Clean and CCTV" recommendation, which are not included in the following CIP projects.

Table ES-7 below provides a summary of the project costs for each recommended CIP project. Note that these are rough order of magnitude cost opinions for preliminary planning information only and do not include inflation for future cost planning.

Table ES-7 Capital Improvement Program (CIP) Cost Summary

CIP No.	Pipe Segments	Street	Description	Construction Cost Opinion Plus Contingency	Engineering / CM / Admin	Total Cost (\$2024)
CIP-001	Various	Various	Sewer Point Repair Program (Severity E)	\$460,000	\$140,000	\$600,000
CIP-002	G010-G009, G011-G010, G012-G011, G013-G012, G014-G013, G801-G014, G007-G012	Via Kannela, Via Irana	Replace 1,509 LF of 8" concrete sewer pipes (Severity E)	\$1,240,000	\$360,000	\$1,600,000
CIP-003	S017-S016	Beach Boulevard	Replace 335 LF of 10" VCP sewer pipe (Severity E)	\$320,000	\$100,000	\$420,000
CIP-004	B039-B002, H107-B005	Cerritos Avenue	Replace 527 LF of 8" VCP sewer pipes (Severity E)	\$460,000	\$140,000	\$600,000
CIP-005	Various	Various	Sewer Point Repair Program (Severity D)	\$1,140,000	\$340,000	\$1,480,000
CIP-006	Various	Various	Sewer Pipeline Replacement and Rehabilitation Program (Severity D)	\$9,600,000	\$2,900,000	\$12,500,000
CIP-007	N/A	Various	Sewer Manhole Replacement and Rehabilitation Program	\$1,300,000	\$400,000	\$1,700,000
CIP-008	W002-0C09, W003-W002, W004-W003, W005-W004,	Lampson Avenue	Upsize 1,166 LF of 8" VCP sewer pipes (Capacity Deficiency)	\$1,200,000	\$400,000	\$1,600,000
					Total	\$20,500,000

The City plans to implement the recommended CIP projects over the next 10 years. Projected expenditures for the 10-year CIP program are included in Appendix 8. These preliminary projections were developed based on the estimated CIP costs listed herein, prioritizing CIP projects with severe condition deficiencies, and direction from City staff.

1.0 INTRODUCTION

In 2013, the City of Stanton (City) completed the City of Stanton Sewer Master Plan Update (Master Plan). The Master Plan included an evaluation of the existing sanitary system, a capacity analysis, inspection, hydraulic modeling of the City's collection system, and development of future flow projections. The Master Plan also included recommendations for pipeline improvements. Additional information pertaining to major elements of the City's wastewater collection (sewer) system and specific system improvements was included in the Master Plan.

Due to increased growth in development, system modifications, ongoing water conservation efforts, and aging infrastructure, the City is updating its infrastructure needs and Capital Improvement Program (CIP).

Available capacity of the collection system was determined based on captured flow monitoring data and projected wastewater flow projections. Estimated flows were incorporated into the sewer model to determine the capacity improvement needs, while video pipeline inspections were conducted to identify condition related improvements needed.

This introductory chapter of the Master Plan provides a summary of the:

- Master Plan purpose and objectives
- Contents and organization of this report
- Background information about the City's sanitary sewer system
- Overview of Regulatory Requirements

1.1 SEWER MASTER PLAN PURPOSE / OBJECTIVES

The purpose of this Sewer Master Plan Update (Master Plan Update) is to reevaluate the City's existing and future wastewater system infrastructure needs and assist the City achieve compliance with the State of California's Waste Discharge Requirements (WDRs). The Master Plan Update includes a capacity and condition assessment of the existing sewer collection system to update the CIP for the next 10-years. The recommended CIP forms the basis for capital facilities financing and can be used in sewer rate evaluations to be completed in separate financial studies. Other key objectives with preparation of the Master Plan Update are to:

- Include land use and planned development consistent with the General Plan
- Incorporate current Housing Element information and update estimated wastewater flow projections
- Assess the current condition of the wastewater system and identify specific improvements over a 10 year planning horizon
- Include recommended system improvements that address existing and projected capacity constraints over a 10 year planning horizon
- Review of sewer system improvements since 2013
- Conduct, review and assess Closed Circuit Television (CCTV) data captured of the sewer system

- Conduct flow monitoring for use to estimate existing and future wastewater flow rates
- Review of wastewater flow data to confirm and/or update unit wastewater generation flow rates
- Perform a hydraulic analysis of the wastewater system for existing and future (10-years) conditions
- Develop a phased improvement plan
- Estimate wastewater system improvement costs

In addition to providing City staff with information that can be used for planning, management, and operation and maintenance of its wastewater system to assure an appropriate level of service, this Master Plan Update will ultimately allow the City to:

- Address capacity issues through the update of the hydraulic model
- Assess the condition of the collection system
- Strategically and systematically prioritize existing and projected improvements
- Reduce the occurrences of emergency repairs
- Extend asset service life
- Minimize cost of operating, maintaining, and renewing assets
- Direct budgeted resources toward sustaining the performance of assets
- Facilitate development of funding and revenue plans

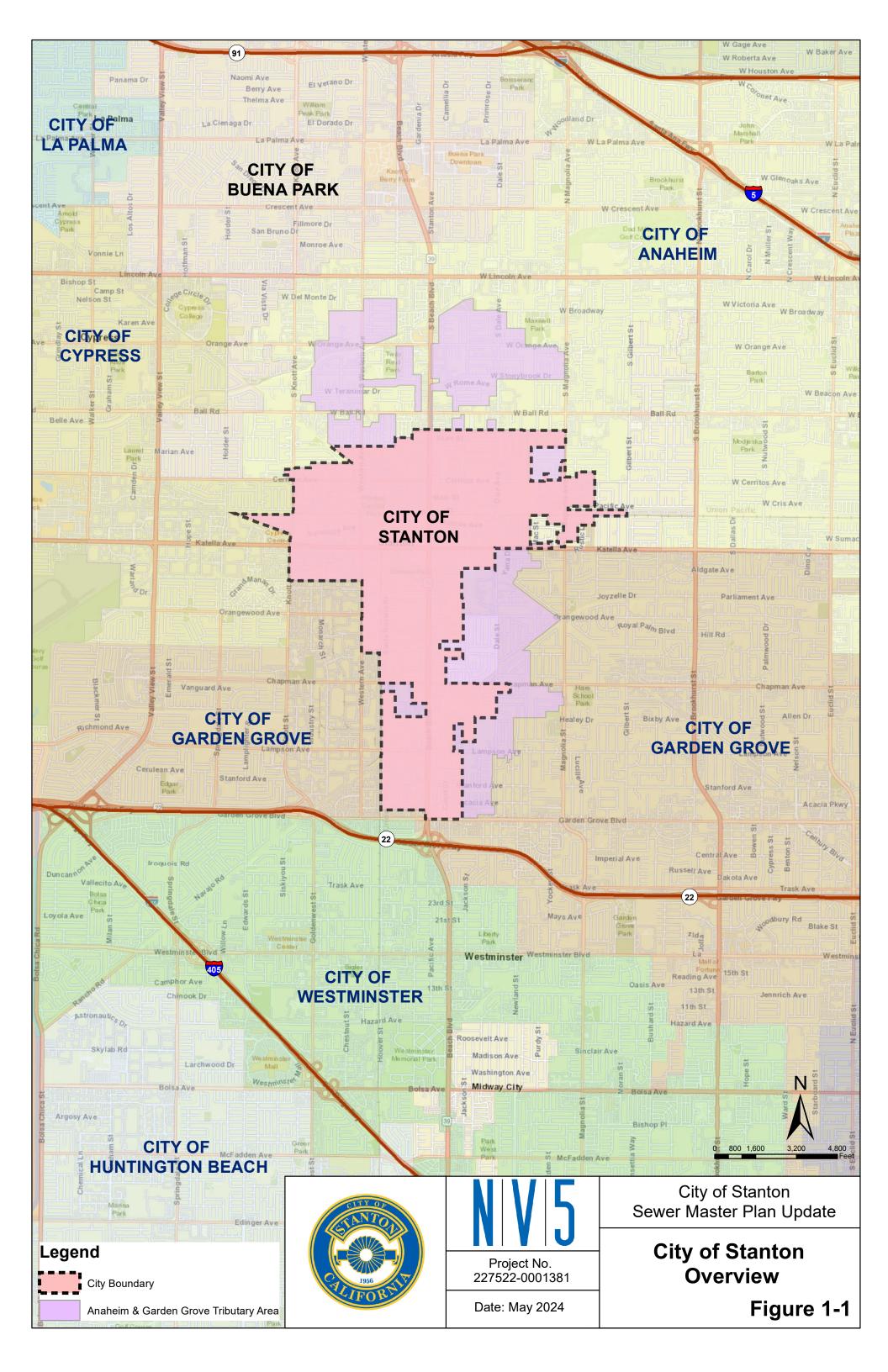
1.2 **BACKGROUND**

The City is located in in the northwestern portion of Orange County, CA. It encompasses 3.1 square miles of commercial, industrial, and residential areas and serves a population of approximately 39,000 residents.

Prior to the City's incorporation in 1956, the City of Anaheim proposed creating a sewage farm on the County land near the residents of Benedict. In 1911, the residents responded to this proposal by incorporating as the City of Stanton, which prevented the creation of the sewage farm. In 1924, the residents voted to disincorporate which extended until 1956 when the City once again voted for the City's incorporation. It is now operated under the general law form as mandated by the State of California.

The City operates under a Council/Manager form of government, under which the City Council is the policymaking body and the City Manager is responsible for executing Council policy. The City Council is made up of the City mayor, who is elected at large, and four (4) City Council members elected by voters in their districts.

The City continues to work to proactively and systematically maintain its wastewater infrastructure and provide an appropriate level of service to its customers. The City's system includes approximately 50.5 miles of wastewater collection system gravity mains and pipelines and approximately 1,100 manholes. Figure 1-1 illustrates the general location of the City of Stanton and the boundary of its sanitation jurisdiction.



1.3 REPORT ORGANIZATION

This Master Plan Update allows for a comprehensive review and evaluation of the City's wastewater collection, conveyance, condition, and capacity requirements under existing and future conditions (10-years). Based on findings of the evaluation, the Master Plan Update includes recommended facility improvements and estimated capital cost requirements to assure that aging infrastructure remains serviceable and allows for the anticipated growth within the City. The findings will provide the City with information to be used for planning, management, operation and maintenance, and allocation of funding to efficiently and effectively maintain the wastewater collection system and implement capital improvements needs.

The Master Plan Update is presented in the following ten (10) chapters;

- Chapter 1 provides an introduction, purpose and objectives, and background to the project.
- Chapter 2 presents an overview of the study area.
- Chapter 3 presents an overview of the City's wastewater assets.
- Chapter 4 includes a description of the methodology for developing recommended unit generation rates.
- Chapter 5 presents the design criteria used to evaluate the existing sewer system and design criteria for new sewer infrastructure.
- Chapter 6 includes a description of the hydraulic model update including model calibration.
- Chapter 7 presents the capacity analysis for existing and future flow conditions.
- Chapter 8 includes a summary of the pipeline condition assessment performed including assessment criteria, severity ratings, and preliminary recommendations.
- Chapter 9 includes an overview of the City's Operations and Maintenance Program.
- Chapter 10 includes a summary of the recommended Capital Improvement Program projects and estimated costs.

1.4 REGULATORY REQUIREMENTS

On May 2, 2006, the State Water Resources Control Board (SWRCB) adopted Order 2006-0003, the Statewide General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems, which requires all federal and state agencies, municipalities, counties, districts, and other public entities that own or operate a sanitary sewer system greater than one (1) mile in length to comply with the elements of the WDRs. The WDRs serve to provide a unified statewide approach for reporting and tracking Sanitary Sewer Overflows (SSO), establishing consistent and uniform requirements for Sewer System Management Plan (SSMP) development and implementation, establishing consistency in reporting, and facilitating consistent enforcement for violations. Additionally, the WDRs require that the SSMP include directives for owners and operators of sanitary sewer systems to demonstrate effective and efficient management, operation and maintenance of the sanitary sewer system.

In 2008, the SWRCB issued Order No. WQ 2008-0002-EXEC to address deficiencies in the notification procedures that were originally included in the General WDR Monitoring and Reporting Program (MRP). The 2008 Order included amending the MRP requirements of the WDRs to address timely notifications of SSOs discharged to waters of the State and ensure first responders are notified in a timely manner. Subsequently, Order No. WQ 2013-0058-EXEC was issued to address compliance and enforceability of the MRP and include a definition of a Category 3 SSO to the already defined Category 1 and Category 2.

On December 6, 2022, the SWRCB adopted General Order WQ 2022-0103-DWQ, which serves as statewide waste discharge requirements, supersedes the previous Order 2006-0003-DWO and amendments thereafter, and became effective June 5, 2023. Through this General Order, the SWRCB requires an enrollee to:

- Comply with federal and state prohibitions of discharge of sewage to waters of the State, including federal waters of the United States;
- Comply with specifications, and notification, monitoring, reporting and recordkeeping requirements in this General Order that implement the federal Clean Water Act, the California Water Code (Water Code), water quality control plans (including Regional Water Board Basin Plans) and policies;
- Proactively operate and maintain resilient sanitary sewer systems to prevent spills;
- Eliminate discharges of sewage to waters of the State through effective implementation of a Sewer System Management Plan;
- Monitor, track, and analyze spills for ongoing system-specific performance improvements; and
- Report noncompliance with this General Order per reporting requirements.

The City recognizes the importance of preventing sewage spills for the mutual protection of it surface waters and the overall environment to safeguard public health and safety. In compliance with the State WDRs, the City prepared an SSMP that includes various plans and programs that are reflective of the City's existing processes and procedures pertaining to its sanitary sewer collection system. The City conducted an update of its SSMP in June 2023. The City's SSMP includes the eleven (11) WDR elements including a summary of the required changes and updates. The SSMP is available at the City offices and includes detailed information demonstrating the City's efforts to comply with each of the mandatory and applicable elements required.

1.5 **ENVIRONMENTAL COMPLIANCE**

The City's Master Plan Update is statutorily exempt from the preparation of an Environmental Impact Report (EIR) or a Negative Declaration per Section 15262 of the California Environmental Quality Act (CEQA) guidelines. However, the approval of specific improvement projects identified in this Master Plan Update represents a discretionary action by the City, which is subject to review under CEQA.

2.0 STUDY AREA

This chapter provides a description of the Master Plan Update study area including information regarding:

- Topography, soils, geology, and climate
- Existing and forecasted populations
- Existing Storm Drain and Potable Water Facilities
- Regional sewage facilities serving the City
- Sewer basins.
- Land Use

2.1 STUDY AREA OVERVIEW

The City is located in in the northwestern portion of Orange County, CA. It encompasses approximately 1,993 acres or about 3.1 square miles of commercial, industrial, and residential areas and serves a population of approximately 39,000 residents. Neighboring cities include Anaheim and Buena Park to the north, Garden Grove and Anaheim to the east, Westminster to the south and Garden Grove and Cypress to the west.

The City is bound by several highways which provide direct access into the City from all directions. The San Diego Freeway (I-405) and Garden Grove Freeway (SR-22) are located to the south. The San Gabriel Freeway (I-605) is located to the west. The Artesia Freeway (SR-91) is located to the north. Major roads that traverse the City include Beach Boulevard, Knott Avenue, Magnolia Avenue, Katella Avenue, Cerritos Avenue, Western Avenue, and Chapman Avenue.

The Cities of Garden Grove and Anaheim contribute flows into the City's sewer system. Approximately 660 acres of Anaheim are tributary to City's system from the north, and approximately 563 acres of Garden Grove are tributary to the City's system from the east and west. The total sewer service area including the tributary portions residing in the City of Anaheim and Garden Grove is approximately 1,223 acres. The southern portion of the City, located south of Stanford Avenue and east of Hoover Street, is tributary to the Garden Grove Sanitary District's system.

2.1.1 Topographical Description

The study area is generally flat with a slope of approximately 0.18 percent. The highest ground elevation is approximately 80 feet above mean sea level (amsl) in the northeastern portion of the City, at Lola Avenue and Magnolia Avenue. The lowest ground elevation is approximately 50 feet amsl at the southwestern portion of the City at the intersection of Garden Grove Boulevard and Hoover Street.

2.1.2 **Geotechnical Information**

Soils

Three soil classifications exist within the corporate boundaries of the City, as seen on the Hydrologic Classification of Soils, Plate A of the Orange County Hydrology Manual and Figure 2-1. The descriptions of each soil type are as follows:

- Group A soils are well drained sands or gravels with high infiltration and water transmission rates.
- Group B soils are generally well drained, sandy loam having moderate infiltration and water transmission rates.
- Group C soils are mostly silty-loam with slow infiltration and water transmission rates.

The soils with higher infiltration rates permit better passage of water through them to the groundwater table. Sewer lines constructed in Group A and B soils would therefore be more susceptible to infiltration through defective pipe joints and manholes than Group C soils.

The majority of the soils in the study area are Groups A and B. However, a significant concentration of Group C soil is found on the south side of the City, just north of SR-22 on either side of Beach Boulevard. Group C soil is also found on the corner of Santa Rosalia Street and Lampson Avenue.

Geology

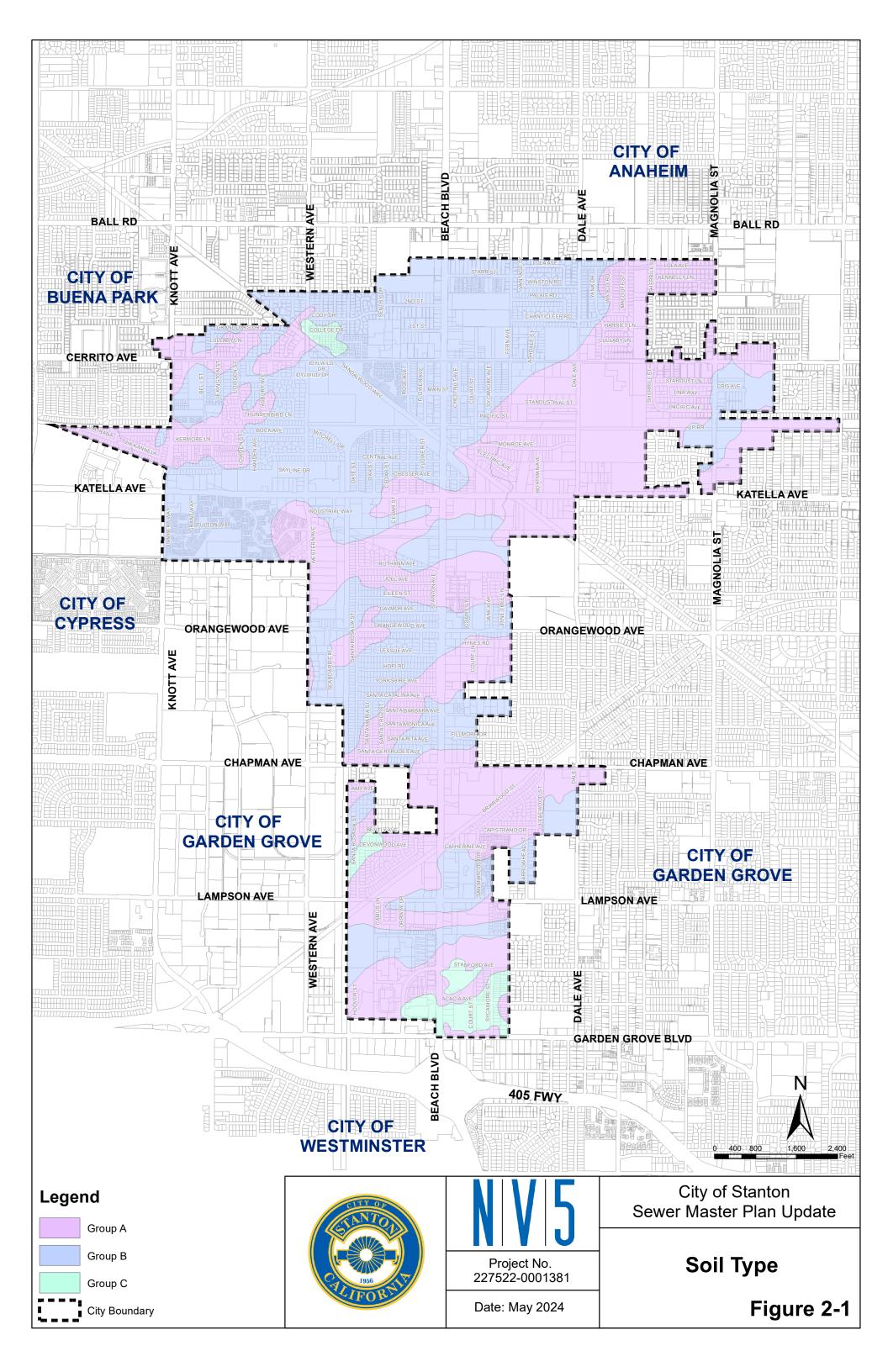
There are several major faults in close proximity to the City. The Newport-Inglewood Fault and Los Alamitos Fault are located south of the City. The Whittier Fault and Norwalk Fault are located to the north of the City. These faults generally run in the northwest to southeast direction.

2.1.3 Climate

The climate in the area is generally mild temperatures, virtually no days below freezing, and approximately 340 days of sunshine per year. The average annual rainfall for the City of Stanton is estimated to be approximately 13.30 inches, as measured at the Orange County Public Works (OCPW) Watershed Program, Santa Ana Station No. 121. Most of the rainfall occurs between the months of November and April.

2.1.4 **Population**

According to population estimates by the State of California Department of Finance, the population of Stanton was 38,914 persons in 2023, which is a decrease of approximately 0.7% since 2013. Connect SoCal, the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy, developed by Southern California Association of Governments (SCAG), forecasts that the City's population will increase to 41,300 by 2035, an increase of approximately 6.1% from 2023.



2.2 ORANGE COUNTY FLOOD CONTROL DISTRICT FACILITIES

Included in the study area are several major Orange County Flood Control District (OCFCD) storm drain channels, which generally drain in a northeast to southwest direction. The OCFCD storm drain channels which are located within the City boundary are included in Table 2-1. A description of each OCFCD facility is also provided below.

OCFCD Facility No. Facility Reference Knott Cerritos Storm Drain C02P03 C02P08 Dale Cerritos Storm Drain C02S01 Stanton Storm Channel C03 **Anaheim Barber City Channel** C03P04 Chapman Beach Storm Drain C03P05 Lampson Storm Drain C03P06 Chapman Dale Storm Drain C03S04 Rosalia Storm Channel

Table 2-1 OCFCD Storm Drain Channels

The Knott-Cerritos Storm Drain drains from the intersection of Knott Avenue and Cerritos Avenue and extends south along Knott Avenue to the Jonathan Storm Channel (OCFCD Facility No. C02S03) at the Southern Pacific Railroad. This facility consists of the following:

Knott-Cerritos Storm Drain - OCFCD Facility No. C02P03

Location	Facility Description
Knott Avenue	81" reinforced concrete pipe (RCP)

The Dale-Cerritos Storm Drain begins at Cerritos Avenue, 250' west of Sherrill Street. It drains west along Cerritos Avenue and south along Dale Street to the Stanton Storm Channel, south of Standustrial Street. The facility consists of the following:

Dale-Cerritos Storm Drain - OCFCD Facility No. CO2P08

Location	Facility Description
Cerritos Avenue	Single 8' (W) x 4.5' (H) reinforced concrete box (RCB)
Dale Street	Single 9' (W) x 5' (H) reinforced concrete box (RCB)

The Stanton Storm Channel (OCFCD Facility No. CO2SO1) conveys the flow from the Dale-Cerritos Storm Drain. It commences at Cerritos Avenue, south of Standustrial Street and extends southwest through the industrial area at the northeast corner of Katella Avenue and Dale Street. The Stanton Storm Channel parallels Katella Avenue to the south and exits the City limits at Knott Avenue. The facility consists of the following:

Stanton Storm Channel - OCFCD Facility No. C02S01

Location	Facility Description
Cerritos Avenue	Single 8' (W) x 4.5' (H) reinforced concrete box (RCB)
Dale Street	Single 9' (W) x 5' (H) reinforced concrete box (RCB)
Monroe Avenue	5' (W) x 6.5' (H) reinforced concrete trapezoidal channel
Katella Avenue	5' (W) x 7' (H) reinforced concrete trapezoidal channel
Katella Avenue Crossing	11' (W) x 7' (H) reinforced concrete box (RCB)
South of Katella Avenue	8' (W) x 7' (H) reinforced concrete trapezoidal channel
South of Katella Avenue Crossing	6' (W) x 7.5' (H) reinforced concrete rectangular channel
South of Katella Avenue Crossing	6' (W) x 7.5' (H) reinforced concrete rectangular channel
Beach Boulevard Crossing	8' (W) x 7' (H) reinforced concrete box (RCB)
East of Beach Boulevard	5' (W) x 7' (H) reinforced concrete trapezoidal channel
Santa Rosalia Street	3.5' (W) x 7' (H) reinforced concrete trapezoidal channel
Pacific Railway	3.5' (W) x 8.5' (H) reinforced concrete trapezoidal channel
Western Avenue	8' (W) x 7' (H) reinforced concrete box (RCB)
Knott Avenue	6' (W) x 8' (H) reinforced concrete trapezoidal channel

The Anaheim Barber City Channel enters the City at Chapman Avenue and Dale Street and extends southwest to Lampson Avenue and the Pacific Railway where it exits the City boundary. The facility consists of the following:

Anaheim Barber City Channel - OCFCD Facility No. CO3

Location	Facility Description
Chapman Avenue	Double 12' (W) x 10' (H) reinforced concrete box (RCB)
Lampson Avenue	Double 12' (W) x11' (H) reinforced concrete box (RCB)

The Chapman-Beach Storm Drain begins at Fillmore Drive and extends west to Beach Boulevard. It then extends south along Beach Boulevard and west on Chapman Avenue, where it exits the City at Santa Paula Street. The facility consists of the following:

Chapman-Beach Storm Drain - OCFCD Facility No. CO3P04

Location	Facility Description	
Fillmore Drive	48" reinforced concrete pipe (RCP)	
Beach Boulevard	54" reinforced concrete pipe (RCP)	
Chapman Avenue	Single 5' (W) x 4' (H) reinforced concrete box (RCB)	

The Lampson Storm Drain begins at the corner of Beach Boulevard and Lampson Avenue and confluences with the Anaheim Barber City Channel on Lampson Avenue. The facility consists of the following:

Lampson Storm Drain - OCFCD Facility No. CO3P05

Location	Facility Description	
Lampson Avenue	12' (W) x 13' (H) reinforced concrete trapezoidal channel	

The Chapman-Dale Storm Drain enters the City at the intersection of Dale Street and Chapman Avenue. It extends westward where it confluences with the Anaheim Barber City Channel on Chapman Avenue. The facility consists of the following:

Chapman-Dale Storm Drain - OCFCD Facility No. CO3P06

Location	Facility Description	
Chapman Avenue	78" reinforced concrete pipe (RCP)	

The Rosalia Storm Channel begins 1,500 ft north of Chapman Avenue. It parallels Santa Rosalia Street to the west and exits the City on Chapman Avenue. The facility consists of the following:

Rosalia Storm Channel (OCFCD Facility No. C03S04)

Location	Facility Description
Santa Rosalia Street	Double 5' (W) x 2.7' (H) reinforced concrete box (RCB)

Numerous storm drains within the City boundary connect to the eight (8) OCFCD facilities described above. In crossing these channels and tributary storm drains, as well as other major utilities, the wastewater collection system includes several inverted siphons. The City's siphons are described in Chapter 3 of this Master Plan Update.

2.3 GOLDEN STATE WATER COMPANY FACILITIES

The Golden State Water Company (Golden State Water) provides potable water service to customers in the City. Golden State Water owns and maintains water distribution and transmission pipelines throughout the City which cross and run parallel to the City's existing sewer pipelines. For any sewer improvements project, Golden State Water should be contacted to locate existing water lines and avoid conflicts.

2.4 CITY OF STANTON TRIBUTARY SEWER BASINS

The City's wastewater collection is located within the Orange County Sanitation District's (OCSD's) Service Area 3 and is generally comprised of four (4) tributary sewer basins which generally drain from the northeastern service area boundary towards the southwestern portion of the City. The five (5) OCSD facilities listed below are located within the City to which the wastewater collection system discharges.

- Knott Interceptor
- Hoover Western Subtrunk
- Lampson Interceptor

- Katella Interceptor
- Magnolia Subtrunk

General descriptions of the OCSD sewer drainage basins contributing flows to OCSD facilities are included below. Figure 2-2 graphically illustrates the OCSD drainage basins and facilities.

Katella Hoover Western Tributary Area

The Katella Hoover Western Tributary Area consists of approximately 1,181 acres within the City. The Cities of Anaheim and Garden Grove contribute wastewater from an additional 660 acres and 563 acres, respectively. The tributary area is bound by Knott Avenue, Litchfield Avenue, Oakhaven Drive, and Danbrook Drive to the west; Del Monte Drive and Ball Road to the north; Magnolia Street and Mac Street to the East; and Orangewood Avenue, Yorkshire Avenue and Hampton Way to the south. Tributary flows from Anaheim enter the City at Western Avenue, Garrett Street, Masterson Road, Courtnight Street, Beach Boulevard, Fern Avenue and Dale Street. Tributary flows from Garden Grove enter the City at Cerritos Avenue and Katella Avenue.

The Hoover-Western Subtrunk and Katella Interceptor originate at OCSD manhole (IO18) located at Western Avenue and Katella Avenue. The flows are split to the west by the Katella Interceptor and to the south by the Hoover-Western Subtrunk. The Katella Hoover Western Tributary Area includes all areas that are tributary to the split manhole at this location. A brief description of the Katella Interceptor and Hoover-Western Subtrunk are as follows:

<u>Katella Interceptor</u> - The Katella Interceptor extends west along Katella Avenue, from Western Avenue to Knott Avenue, where the wastewater is discharged into the Knott Interceptor. The Cities of Stanton, Garden Grove, and Anaheim contribute wastewater to this 24-inch facility at Katella Avenue and Western Avenue. Since the Hoover-Western Subtrunk and Katella Interceptor originate at the same upstream manhole (IO18), flows may be diverted to either facility when necessary.

<u>Hoover-Western Subtrunk</u> - The Hoover-Western Subtrunk collects wastewater from the Cities of Stanton, Anaheim, Garden Grove, and Westminster and conveys the flow to the Knott Interceptor. The Hoover-Western Subtrunk is located along Western Avenue, Garden Grove Boulevard, and Hoover Street, and it is parallel to the Knott Interceptor. This facility is 21-inches and 24-inches in diameter, and extends south along Western Avenue, from Katella Avenue to Simmons Place. Since the Hoover-Western Subtrunk and the Katella Interceptor originate at the same upstream manhole (IO18), flows may be diverted to either facility when necessary.

Knott Tributary Area

The Knott Tributary Area includes all areas that are tributary to the Knott Interceptor via local sewers, and it is comprised of approximately 131 acres within the City of Stanton. The Knott Tributary Area is bound by Via Irana and Knott Avenue to the west; Thornton Avenue to the north; Oakhaven Drive, Litchenfield Avenue, and Hardee Way to the east; and Patterson Drive to the south. A portion of the wastewater from the Katella Hoover Western Tributary Area flows into the Knott Interceptor by means of the Katella Interceptor. A brief description of the Knott Interceptor is as follows:

Knott Interceptor - The Knott Interceptor collects wastewater from the Cities of Fullerton, Buena Park, Cypress, Stanton, Westminster, and Seal Beach. Within the City's boundary, the

Knott Interceptor is 63-inches and 66-inches in diameter, and it is located along Knott Avenue, south of Brady Way to Hampton Way. The City contributes wastewater flows to this facility at Syracuse Avenue and at Katella Avenue.

Lampson Hoover Western Tributary Area

The Lampson Hoover Western Tributary Area includes approximately 600 acres within the City of Stanton as well as approximately 530 acres from the City of Garden Grove. The areas tributary to the Lampson Interceptor are also included in the Lampson Hoover Western Tributary Area. It is bound by Western Avenue, Hardee Way, and the Union Pacific Corridor to the west; Katella Avenue and Pacific Electric Corridor to the north; Mac Duff Street, Magnolia Street, Josephine Street, and Dale Street to the east, and Garden Grove Boulevard to the south. Tributary flows from the City of Garden Grove enter the City at Crager Lane, Chapman Avenue, Lampson Avenue, Stanford Avenue, Acacia Avenue, Fern Street, Vanguard Circle, Laurelton Avenue, Belgrave Avenue, and Fieldgate Street. Additional wastewater from the Katella Hoover Western Tributary Area flows into the Hoover-Western Subtrunk at Katella Avenue and Western Avenue. A brief description of the OCSD facilities includes the following:

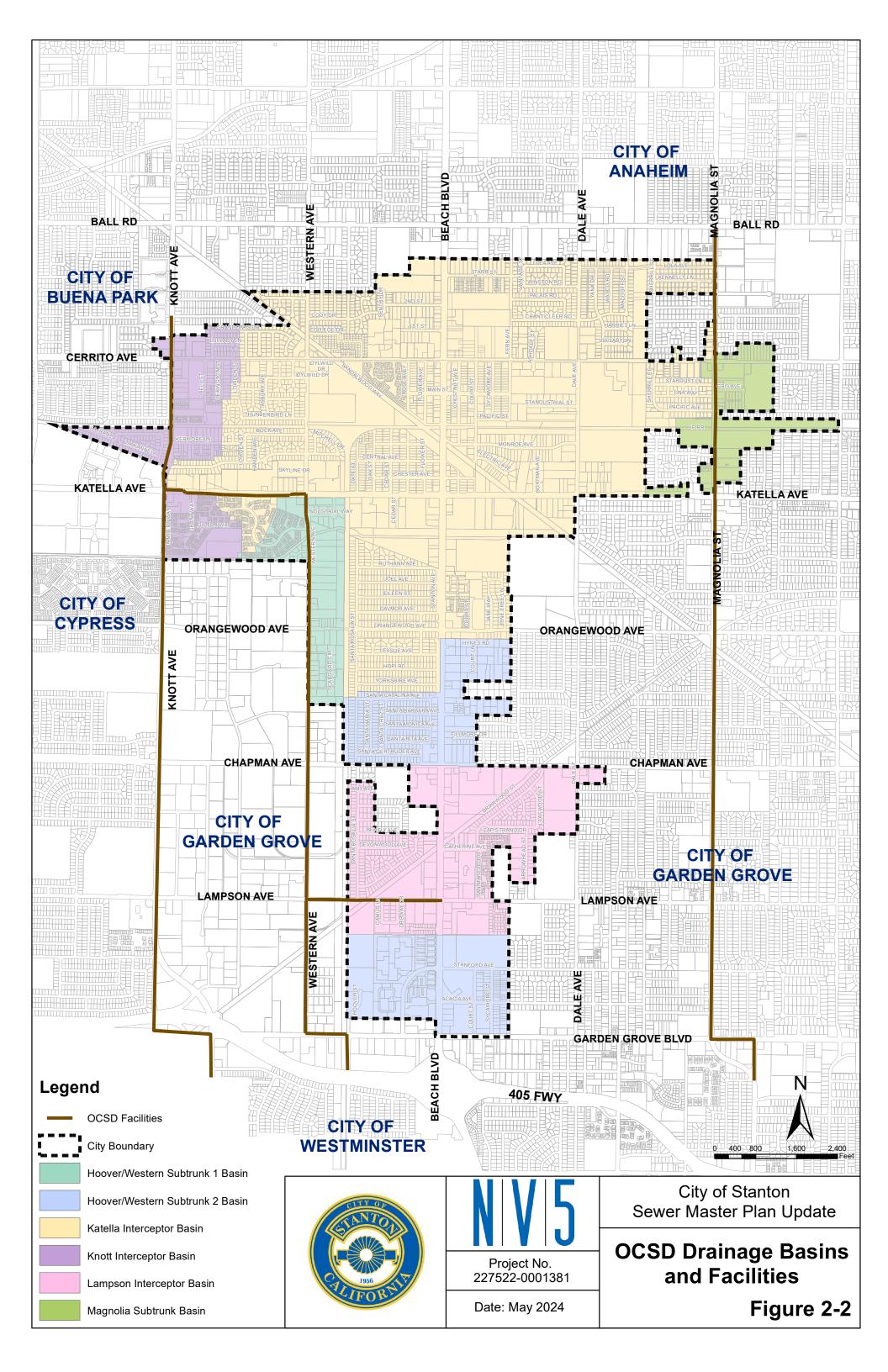
Hoover-Western Subtrunk - The Hoover-Western Subtrunk collects wastewater from the Cities of Stanton, Anaheim, Garden Grove, and Westminster and conveys the flow to the Knott Interceptor. The Hoover-Western Subtrunk is located along Western Avenue, Garden Grove Boulevard, and Hoover Street, and it -inch and 24-inch in diameter, and extends south along Western Avenue, from Katella Avenue to Simmons Place. Since the Hoover-Western Subtrunk and the Katella Interceptor originate at the same upstream manhole (IO18), flows may be diverted to either facility when necessary.

Lampson Interceptor - The Lampson Interceptor collects wastewater from the Cities of Stanton and Garden Grove. The facility is 15-inch to 21-inch in diameter and extends west along Lampson Avenue from Beach Boulevard to Western Avenue where the wastewater is discharge to the Hoover-Western Subtrunk. The City contributes wastewater at Beach Boulevard, Rancho 39 MHP, west of the Anaheim Barber Channel, and Santa Rosalia Street.

Magnolia Tributary Area

The Magnolia Tributary Area includes approximately 85 acres on the north-eastern end of the City. It includes the areas that are tributary Magnolia Subtrunk via City sewers. The Magnolia Tributary Area is bound by Christy Street and Annapolis Avenue to the west; Lullaby Lane to the north; Garza Street and Gilbert Street to the east; and Katella Avenue to the south. A brief description of the Magnolia Subtrunk includes the following:

Magnolia Subtrunk - The Magnolia Subtrunk collects wastewater from the Cities of Anaheim, Stanton, Garden Grove, Westminster, and Fountain Valley. It is located on the east end of the City along Magnolia Street between Lola Avenue and Katella Avenue. The City contributes wastewater to the Magnolia Subtrunk along Magnolia Avenue, at Cerritos Avenue, Pacific Avenue, Stacie Lane, and north of Katella Avenue.



2.5 LAND USE

The Stanton General Plan (General Plan) was adopted in 2008, under Resolution No. 2008-36. The General Plan was developed to guide the City in achieving its economic and community development goals and includes specific measures and activities to meet the needs of the City's land use, transportation, economic development, community aesthetics, housing, public facilities, and infrastructure.

The land use information utilized in the preparation of this Master Plan Update is based on the City's 2021-2029 Housing Element, dated June 2022 and the City of Stanton General Plan (General Plan), adopted September 23, 2008. The current Housing Element dated June 2022 reflects the 2021-2029 Housing Plan includes the goals, policies, and programs the City will implement to address the City's constraints and needs.

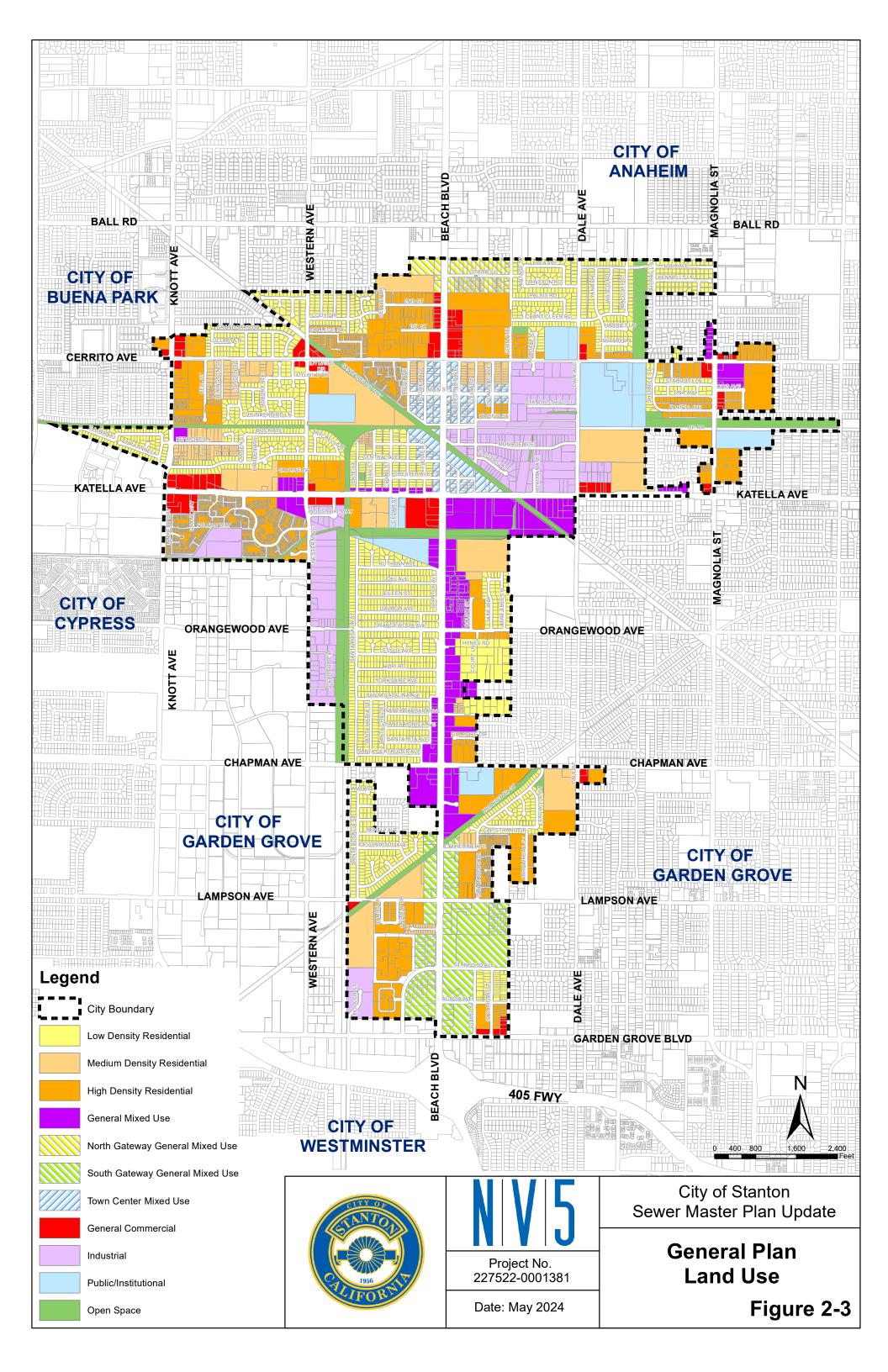
The City is a built-out urban suburb that is experiencing revitalization in its redevelopment and continues its effort to maximize the development of vacant and underutilized land. Currently, the City consists of mostly residential, mixed-use, commercial, and industrial land. Land use designations within the study area are categorized in Table 2-2 and shown on Figure 2-3 based on the General Plan and the City's Zoning Code, which is used to implement the General Plan.

Table 2-2 Land Use Composition

General Plan Designation (Zoning Code Designations)	Zoning Density	Zoning Codes	Area (Ac)	Percentage of Total
Low Density Residential (Residential Estates; Single-Family Residential)	1-6 du/ac RE, RL		436.4	22.0%
Medium Density Residential (Medium Density Residential)	6.1-11 du/ac RM		166.4	8.4%
High Density Residential (High Density Residential; Planned Development)	11.1-18 du/ac	RH, PD	321.8	16.2%
	Sub	total Residential Use	924.6	46.6%
General Mixed-Use (General Mixed-Use)	45 du/ac	GLMX	112.5	5.7%
North Gateway Mixed-Use District (North Gateway Mixed-Use)	45 du/ac NGMX		22.4	1.1%
South Gateway Mixed-Use District (South Gateway Mixed-Use)	60 du/ac SGMX		92.7	4.7%
Town Center Mixed-Use District	60 du/ac		37.9	1.9%
		Subtotal Mixed-Use	265.5	13.4%
General Commercial (Commercial Neighborhood; Commercial General)		CN, CG	55.4	2.8%
	Subtotal Commercial Use			2.8%
Industrial (Business Park; Industrial General)		BP, IG	151.8	7.6%
	Subtotal Industrial Use			7.6%
Public/Institutional (Public/Institutional)		PI	90.7	4.6%
		Subtotal Public Use	90.7	4.6%
Open Space / Recreational (Open Space/Buffer; Parks and Recreation)		OS, PR	122.8	6.2%
Streets and Right of Ways			373.8	18.8%
Subtotal Other Use				25.0%
	1,984.6	100.0%		

DU = Dwelling Unit

Ac= Acres



The following includes a description of the land use designations including the intensity of development permitted based on land use type.

2.5.1 Residential Land Use

The primary land use in the City is residential. The City's Housing Element and General Plan include three residential land use categories including the following:

- Low Density Residential neighborhoods are characterized by single family detached homes with densities up to six (6) DU/ ac.
- Medium Density Residential neighborhoods may include cluster housing, duplexes, triplexes, fourplexes, townhomes, condominiums, apartments, and mobile homes, in addition to low-density single-family homes. The designation allows for a density of 6.1-to 11 DU/ac; however, if a development provides affordable housing for low moderate income households, the density may be increased by 35 percent to 15 DU/ac.
- The High-Density Residential designation is intended for the development of multifamily residential neighborhoods that provide a variety of housing types, primarily along major transportation corridors. The designation allows for a density of 11.1-18.0 DU/ac. A development may increase its zoning density to twenty-four (24) DU/ac by providing affordable housing to low to moderate income households.

2.5.2 General Commercial Land Use

The existing General Commercial Land Use is currently located along Beach Boulevard between Ball Road and Garden Grove Boulevard. There are also areas of commercial land use along Katella Avenue and Cerritos Avenue. General Commercial Land Use encompasses a wide range of businesses which serve the local residential neighborhoods. The General Commercial Land Use designation may include but is not limited to retail shops, professional offices, restaurants, hotels, theaters, churches, and auto related facilities. FAR (Floor Area Ratio) ranges from 0.25 to 1.5.

2.5.3 Mixed - Use

The Mixed-Use Land Use areas allow for both vertical and horizontal mixed-use, consisting of residential, commercial, and office uses. In addition to General Mixed-Use designation, the City has defined three specific Mixed-Use Districts: North Gateway Mixed-Use District, South Gateway Mixed-Use District, and Town Center Mixed-Use District. Other areas of general mixed-use are also located throughout the City. Mixed-Use areas are defined as areas with 60 percent residential density and a 40 percent commercial density, assuming a FAR of 0.35.

<u>General Mixed-Use</u> - Areas are mainly located along Beach Boulevard between Katella Avenue and Catherine Avenue, and along Katella Avenue between Beach Boulevard and Dale Street. Buildings are limited to a height of three (3) stories, and the zoning density shall be a maximum of forty-five (45) DU per acre. However, if a development provides affordable housing for low moderate income households, the density may be increased by 50 percent to sixty-seven (67) DU per acre.

North Gateway Mixed-Use District - The district focuses on commercial and office uses, servicing northern Stanton and Anaheim areas and is located along Starr Street and Beach Boulevard. The buildings may be up to three (3) stories in height, and the zoning density shall

be no more than forty-five (45) DU/ac. Generally, commercial use is encouraged on the ground floor along Beach Boulevard with office and / or residential components on the upper floors. A development may increase its zoning density to sixty-seven (67) DU/ac by providing affordable housing to low to moderate income households.

South Gateway Mixed-Use District – The district is the main entryway into the City from the Garden Grove Freeway (22Fwy) and communities to the south and is located along Beach Boulevard between Catherine Avenue and Garden Grove Boulevard. Commercial, office, and residential uses are allowed up to five (5) stories in height and a density of 60 DU/ac. Uses may be vertically or horizontally integrated, with an emphasis on freeway-oriented commercial and office uses. Residential uses are encouraged to support commercial uses and to serve as a transition to adjacent single-family and multifamily residential development. A development may increase its zoning density to ninety (90) DU/ac by 50 percent by providing affordable housing to low to moderate income households.

<u>Town Center Mixed-Use District</u> – The district focuses on community service uses in a transit supportive environment, with emphasis on a balance of commercial, office, and residential uses. This district is located near the civic center and potential transit routes and is intended to be pedestrian friendly with strong linkages between different uses and easy access to future transit. Commercial, office, and residential uses up to five (5) stories in height and an allowable density of 60 DU/ac. Retail uses are encouraged along the street frontage with office or residential on the rear of properties or upper floors of buildings. However, if a development provides affordable housing to low to moderate income households, the density may be increased by 50 percent to ninety (90) DU/ac.

2.5.4 Industrial Land Use

Industrial areas allow for manufacturing, processing, research and development, assembly, storage, warehousing, distribution, and other industrial services. The industrial developments shall be developed on either large or multiple parcels with common streetscape treatments and design.

2.5.5 Open Space Recreation

Dedicated to providing recreational needs and some open space value, the Open Space and Recreation Land Use is comprised of parks, bicycle paths, golf courses, the off-service Pacific Electric Railroad and Union Pacific Corridor, utility, and flood control easements. The City's existing parks consist of: Stanton Central Park, Stanton Park, Hollenbeck Park, Stanton Tennis Courts, Norm Ross Sports Field, Veteran's Memorial Park, Date and Katella Pocket Park, Dotson Park, Zuniga Park, and Premier Park.

2.5.6 Public / Institutional

The Public / Institutional category are Schools, City offices and yards, libraries, post offices, police and fire stations, hospitals, and medical centers. The City has two (2) public schools and one (1) private school.

3.0 **SUMMARY OF WASTEWATER ASSETS**

The following section includes a description and summary of the City's wastewater facilities. The City's facilities include a network of gravity sewers, manholes, cleanouts, and siphons.

Information pertaining to the characteristics of the existing wastewater collection system was obtained primarily from the City's Geographic Information System (GIS), previously prepared reports and studies, and input from City staff. Information obtained from the GIS included, but was not limited to, characteristics pertaining to pipelines, manholes, and cleanouts. Generally, the records for the sewer pipelines included:

- Facility ID
- Location
- Pipe Length
- Pipe Diameter
- Pipe Material
- Manhole Rim and Invert Elevations

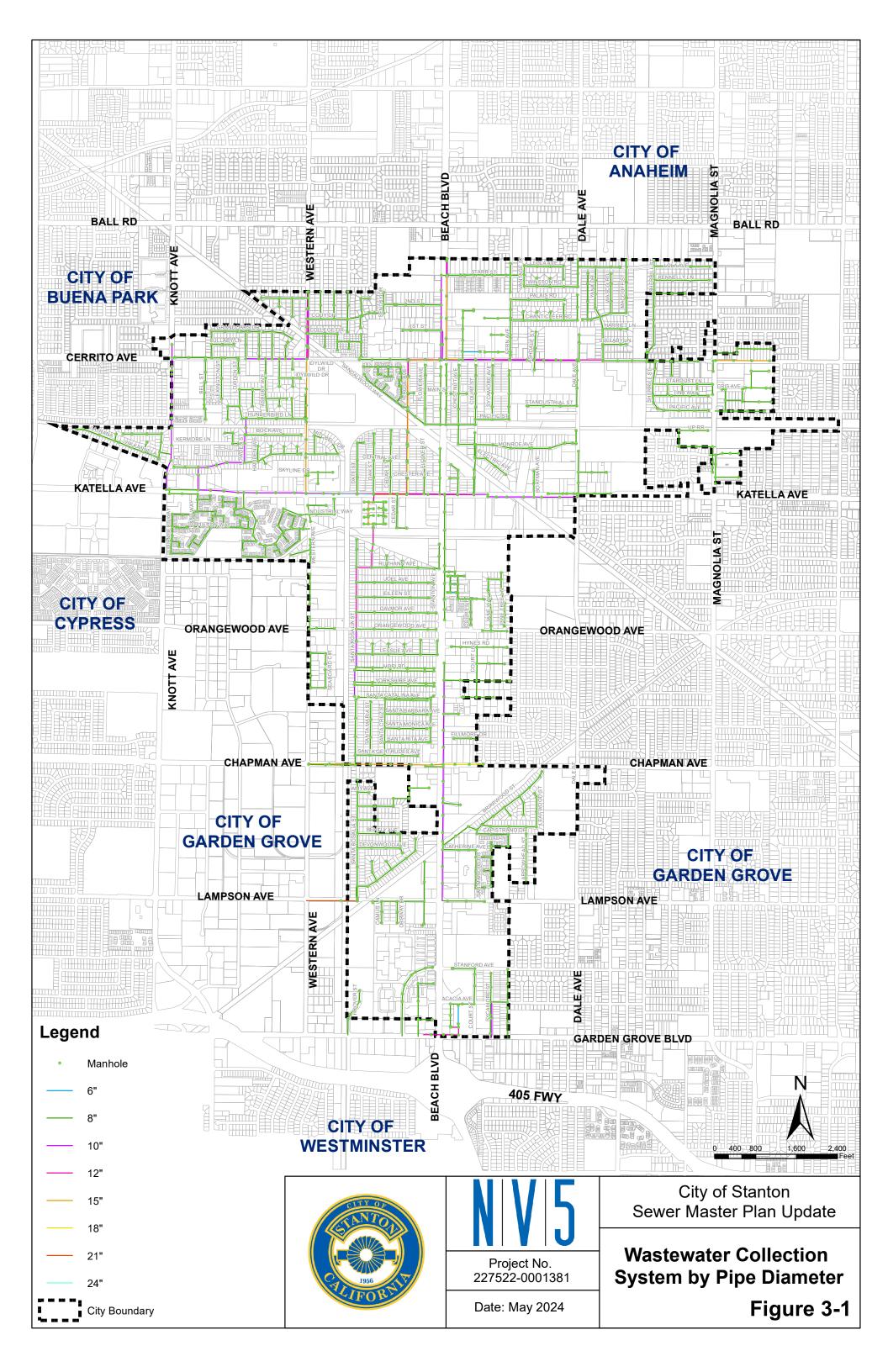
The following includes a description of the City's system assets and characteristics based on the information obtained from the GIS, reports, and City staff.

3.1 WASTEWATER COLLECTION SYSTEM

Information obtained from the City's GIS indicates the majority of the City's wastewater collection system was likely constructed during the 1950s and 1960s. The collection consists of gravity sewers predominantly of Vitrified Clay Pipe (VCP). GIS information includes approximately 50.5 miles of pipe and approximately 1,100 manholes. Pipe diameters range between 6- and 24-inches. The number of pipe segments and the approximate length of pipe associated with the pipe diameter is summarized in Table 3-1. Information presented in Table 3-1 in is illustrated graphically in Figure 3-1.

Table 3-1 Wastewater Collection System by Pipe Diameter

Pipe Diameter	Number of Segments	Feet	Miles	% of Total Footage
6	7	1,075	0.2	0.4%
8	945	208,327	39.5	78.1%
10	99	23,605	4.5	8.9%
12	70	17,531	3.4	6.6%
15	39	9,730	1.8	3.6%
18	11	3,406	0.6	1.3%
21	8	1,687	0.3	0.6%
24	3	1,325	0.3	0.5%
Total	1,175	266,686	50.5	100.0%



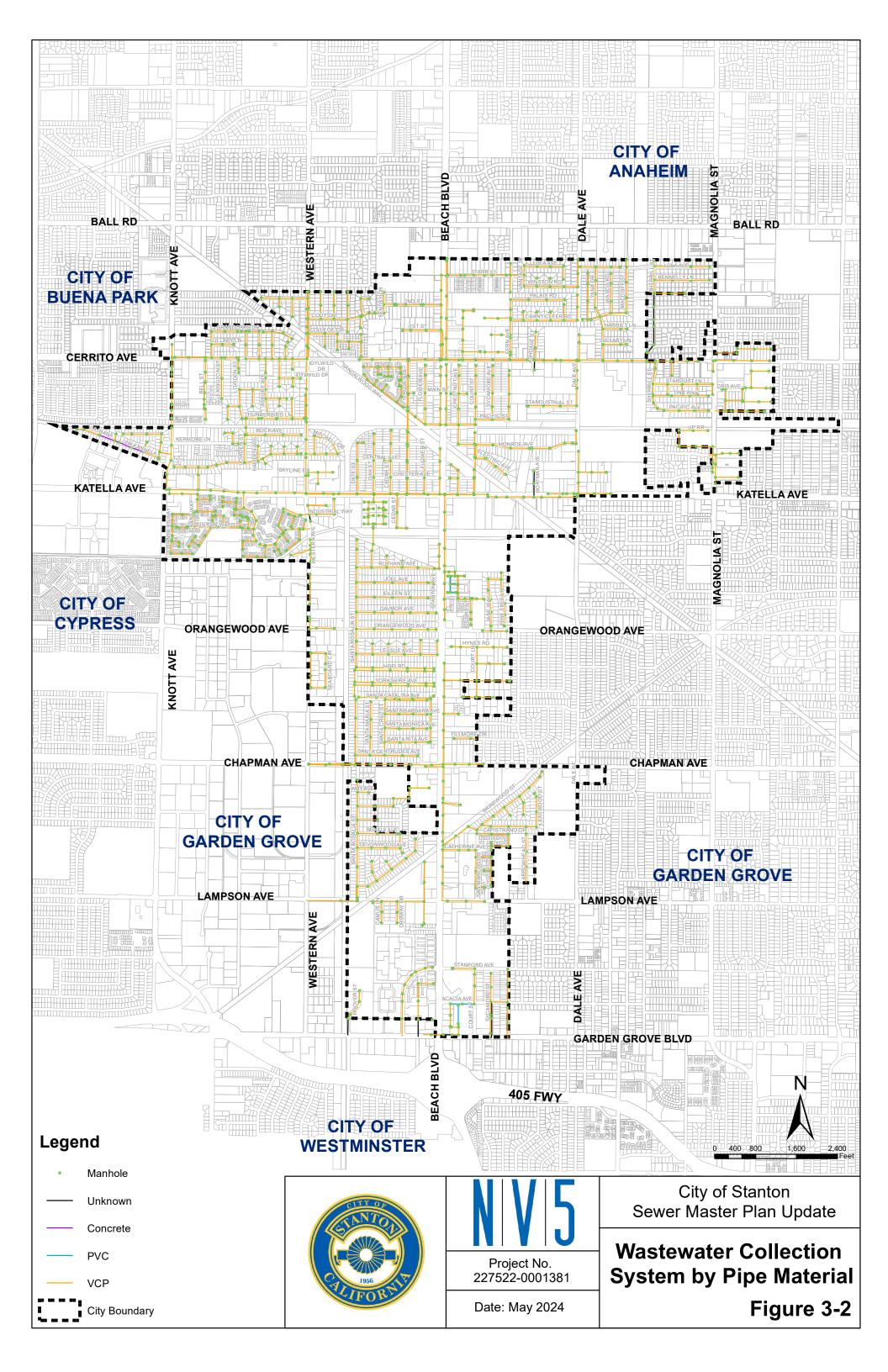
3.2 COLLECTION SYSTEM CHARACTERISTICS

Based on limited data available, it appears construction of the City's collection system commenced in the 1950s when Vitrified Clay Pipe (VCP) was the most common pipe material used for construction. The approximate length of pipe associated with the pipe diameter and material is summarized in Table 3-2. Information presented in Table 3-2 was obtained from the City's GIS and is illustrated graphically in Figure 3-2.

Material Total **Pipe** Diameter **VCP VCP PVC PVC** Unk Unk % of Total Feet Miles (in) (ft) (mi) (ft) (mi) (ft) (mi) **Footage** 391 0.07 0.13 0.20 6 684 1,075 0.4% 203,426 826 8 38.53 0.16 4,075 0.77 208,327 39.5 78.1% 22,891 23,605 10 4.34 714 0.14 4.5 8.9% 12 17,355 3.29 176 0.03 17,531 3.3 6.6% 15 9,730 9,730 1.84 1.8 3.6% 0.7 1.3% 18 3,406 0.65 3,406 21 1,687 0.32 1,687 0.3 0.6% 24 1,325 0.25 1.325 0.3 0.5% Total 260,211 49.29 1,510 0.29 4,965 0.94 266,686 50.5 100.0%

Table 3-2 Wastewater Collection System by Pipe Material

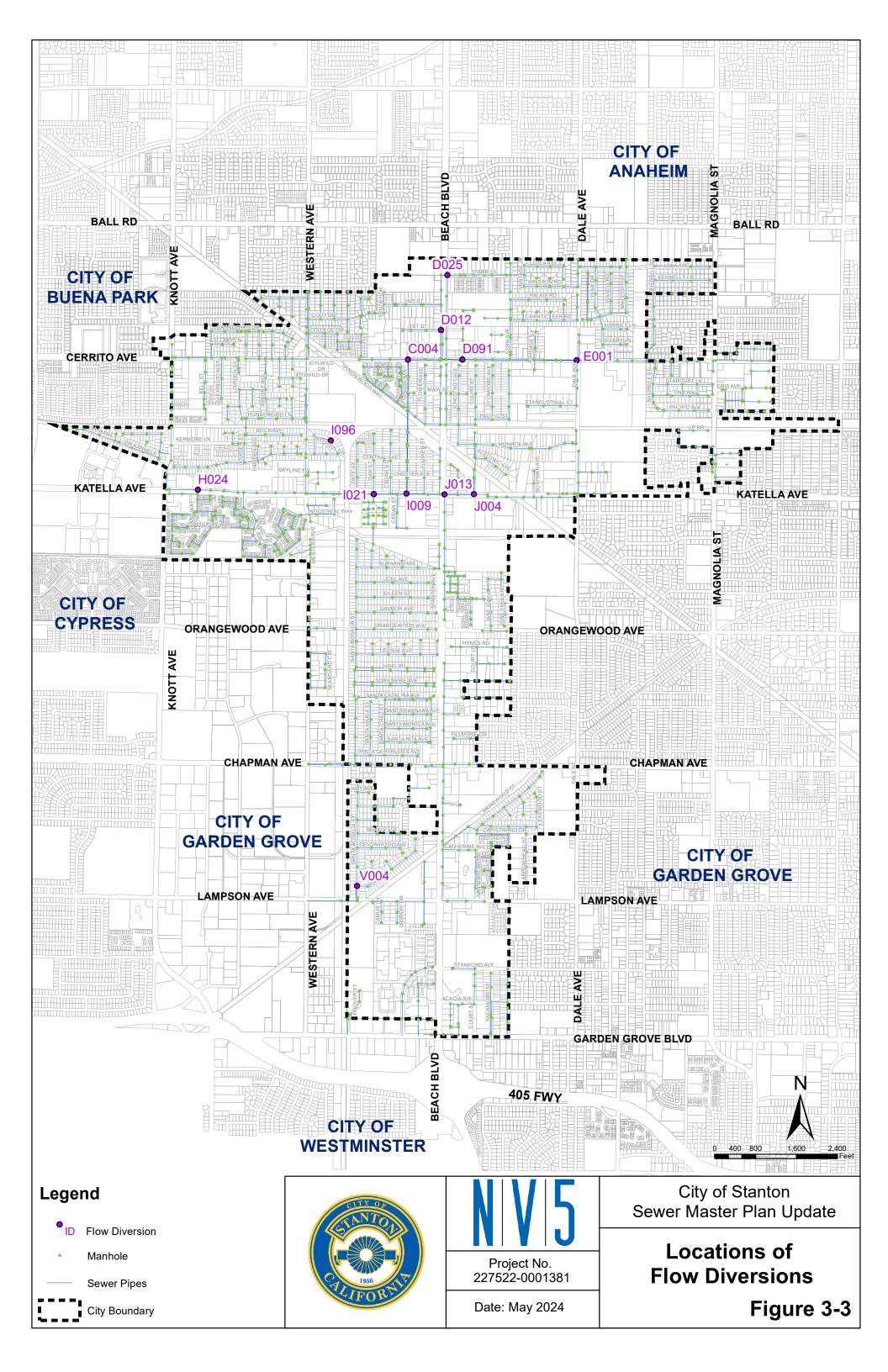
As may be determined from Table 3-2, approximately 98 percent of the City's system consists of VCP pipe. Historically, VCP pipe has an average life span ranging from 50-75 years. Based on the information presented in Table 3-2, approximately 98 percent of the VCP has reached the initial years of the pipe material life cycle. Therefore, as the wastewater collection system continues to age, is critical to continue to monitor the condition of the pipelines and identify methods to extend its service life where possible.



The City's wastewater collection system includes twelve (12) flow diversions located at manholes where flows are diverted / split to multiple reaches. Table 3-3 includes a summary the Manhole IDs and locations where flow is split throughout the wastewater collection system. Information presented in Table 3-3 is illustrated graphically in Figure 3-3.

Table 3-3 Locations of Flow Diversions

MH ID	MH Location	Flow Direction at Split MH	Comments	Plan No.
C004	Cerritos Avenue and Rose Street	South and Southeast	Based on the invert elevations of the discharge pipes, all flow goes south (C004-I004); no flow goes southeast (C004-C058)	D-1485
D012	Beach Boulevard and First Street	South and Southeast	Based on the invert elevations of the discharge pipes, most flow goes southeast (D012-D098); little flow goes south (D012- D011)	CIP 02103
D025	Beach Boulevard and Starr Street	West and Southwest	Based on the invert elevations of the discharge pipes, all flow goes southwest (D025-D022); no flow goes west (D025-D023)	D-1485
D091	Cerritos Avenue, 370' E/O Beach Boulevard	North and West	CCTV shows that the west pipe (D091-D003) is a relief/overflow sewer. Model forces 100% of flow to the north (D091-D032).	D-1485
E001	Cerritos Avenue and Dale Street	North and West	Based on the invert elevations of the discharge pipes, all flow goes north (E001-E003); no flow goes west (E001-D010)	D-1485
H024	Katella Avenue,660' E/O Knott Avenue East and West		Flows are split by invert elevations, slopes, and sizes. Pipe H024-H023 to the west, H024-H025 to the east.	D-1485
1009	Katella and Rose Street	South and West	Based on the invert elevations of the discharge pipes, all flow goes south (I009-I023); no flow goes west (I009-I008)	D-1485
1021	Katella Avenue and Oak Street	North and West	Based on the invert elevations of the discharge pipes, all flow goes west (I021-I020); no flow goes north (I021-I006)	D-1485
1096	Mitchell Drive, east of Garrett Street	Northwest and Southeast	Flows are split by invert elevations, slopes, and sizes. Pipe I096-I094 to the east, I096-I095 to the west.	Unk
J004	Katella Avenue and Court Street	South and West	Based on the invert elevations of the discharge pipes, all flow goes south (J004-J015); no flow goes west (J004-J003)	D-1485
J013	Katella Avenue and Beach Boulevard	North and West	Based on the invert elevations of the discharge pipes, all flow goes west (J013-I024); no flow goes north (J013-J002)	D-1485
V004	Santa Rosalia Street and Georgian Street	South and Southwest	Based on the invert elevations of the discharge pipes, 75% of flow goes south (V004-V003); 25% of flow goes southwest (V004-V002)	CIP 02103



3.3 WASTEWATER COLLECTION SYSTEM SIPHONS

There are fourteen (14) siphons in the City's wastewater collection system and are required where sewer pipelines cross existing storm drains. The City's sewer system crosses beneath the following three (3) OCFCD storm drains.

- Knott Cerritos Storm Drain (OCFCD CO2-PO3)
- Stanton Storm Channel (OCFCD C02-S01)
- Anaheim Barber City Channel (OCFCD CO3)

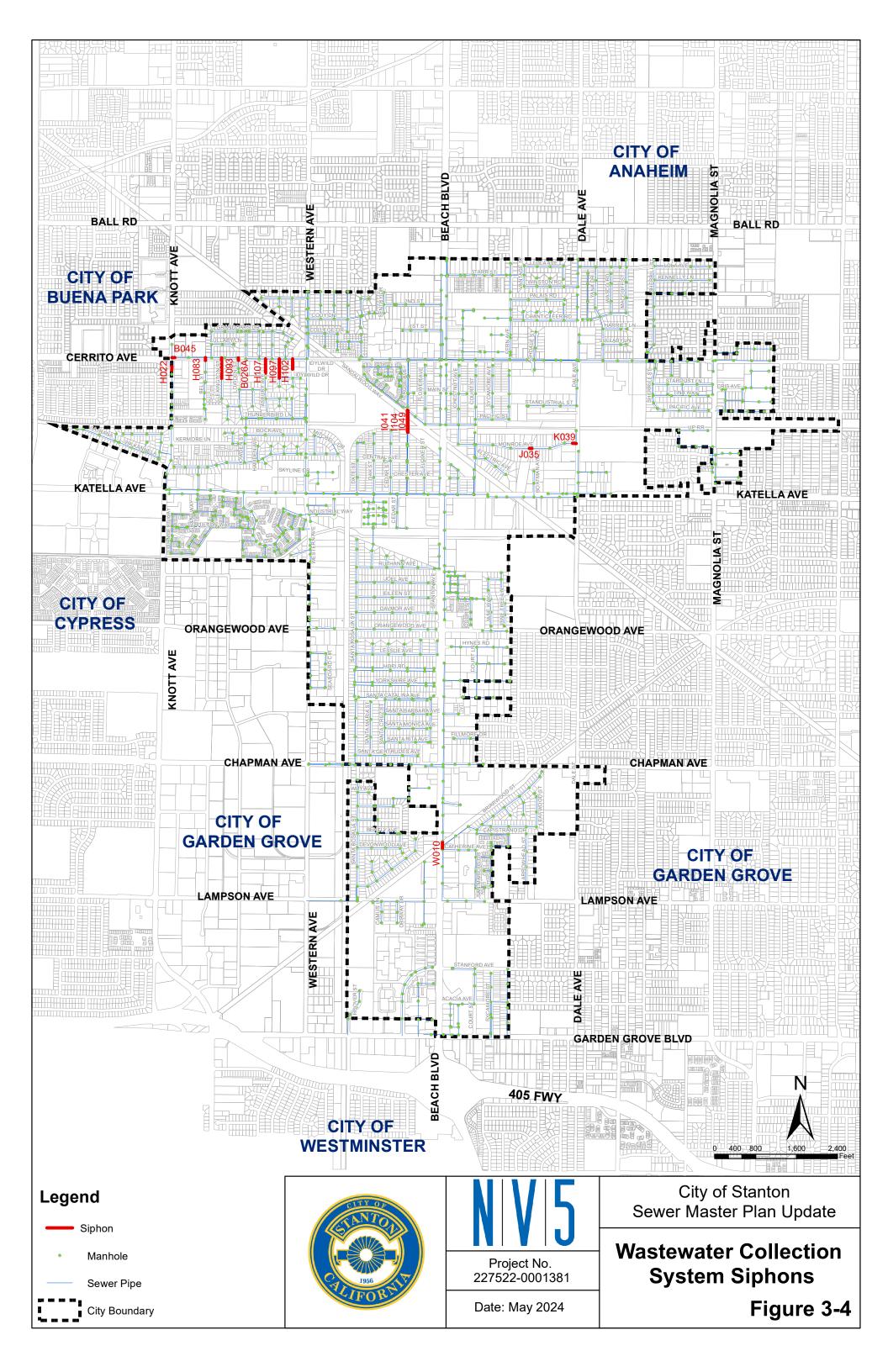
The existing siphon locations are listed in Table 3-4 and are graphically illustrated in Figure 3-4.

Table 3-4 Wastewater Collection System Siphons

		U/S	D/S	- 3-4 Wastewater Col	Size	Length		Existing	
No.	Pipe	MH ID	MH ID	Location	(in)	(ft)	Material	PDWF (mgd)	Comments
1 ¹	B026A-B026	B026A	B026	Lowden Street South of Cerritos Avenue	8	60	VCP	0.003	60" Cerritos Ave storm drain crossing
2 ²	B045-B019	B045	B019	Knott Avenue & Cerritos Avenue - mid intersection	8	62	VCP	0.118	81" OCFCD (CO2- PO3) storm drain crossing
31	H022-H021	H022	H021	Knott Avenue south of Cerritos Avenue	10	57	VCP	0.131	CO2-PO3 storm drain crossing
41	H083-B021	H083	B021	Bell Street, south of Cerritos Avenue	8	55	VCP	0.059	60" Stanton storm drain crossing
5 ²	H093-B023	H093	B023	Lexington Street South of Cerritos	8	359	VCP	0.014	60" Stanton storm drain crossing
6 ²	H097-B003	H097	B003	Courson Drive, south of Cerritos Avenue	8	371	VCP	0.011	60" Stanton storm drain crossing
7 ²	H102-B001	H102	B001	Ramblewood Drive, south of Cerritos	8	198	VCP	0.002	60" Stanton storm
8 ²	H107-B005	H107	B005	Alley west of Courson St, south of Cerritos	8	285	VCP	0.002	60" Stanton storm drain crossing
91	1041-1040	1041	1040	Rose Street at Pacific Electric	12	402	VCP	0.217	
10 ¹	1049-1048	1049	1048	Rose Street at Pacific Electric	12	363	VCP	0.002	-
11 ¹	1104-1105	1104	1106	Rose Street at Pacific Electric	18	419	VCP	1.331	-
122	J035-J034	J035	J034	Monroe Avenue, east of Court Street	8	60	VCP	0.013	5' x 6.5' OCFCD (C02-S01)
13¹	K039-J038	K039	J038	Dale Street & Monroe Avenue	2-6"	91	VCP	0.007	42" MWD pipeline
142	W010-W008	W010	W008	Beach Blvd, north of Catherine Avenue	8	164	VCP	0.058	Dbl 12'x10' OCFCD (CO3) RCB Channel
					Total	2,941			

¹Length of siphon from record drawings

²Length of siphon from GIS



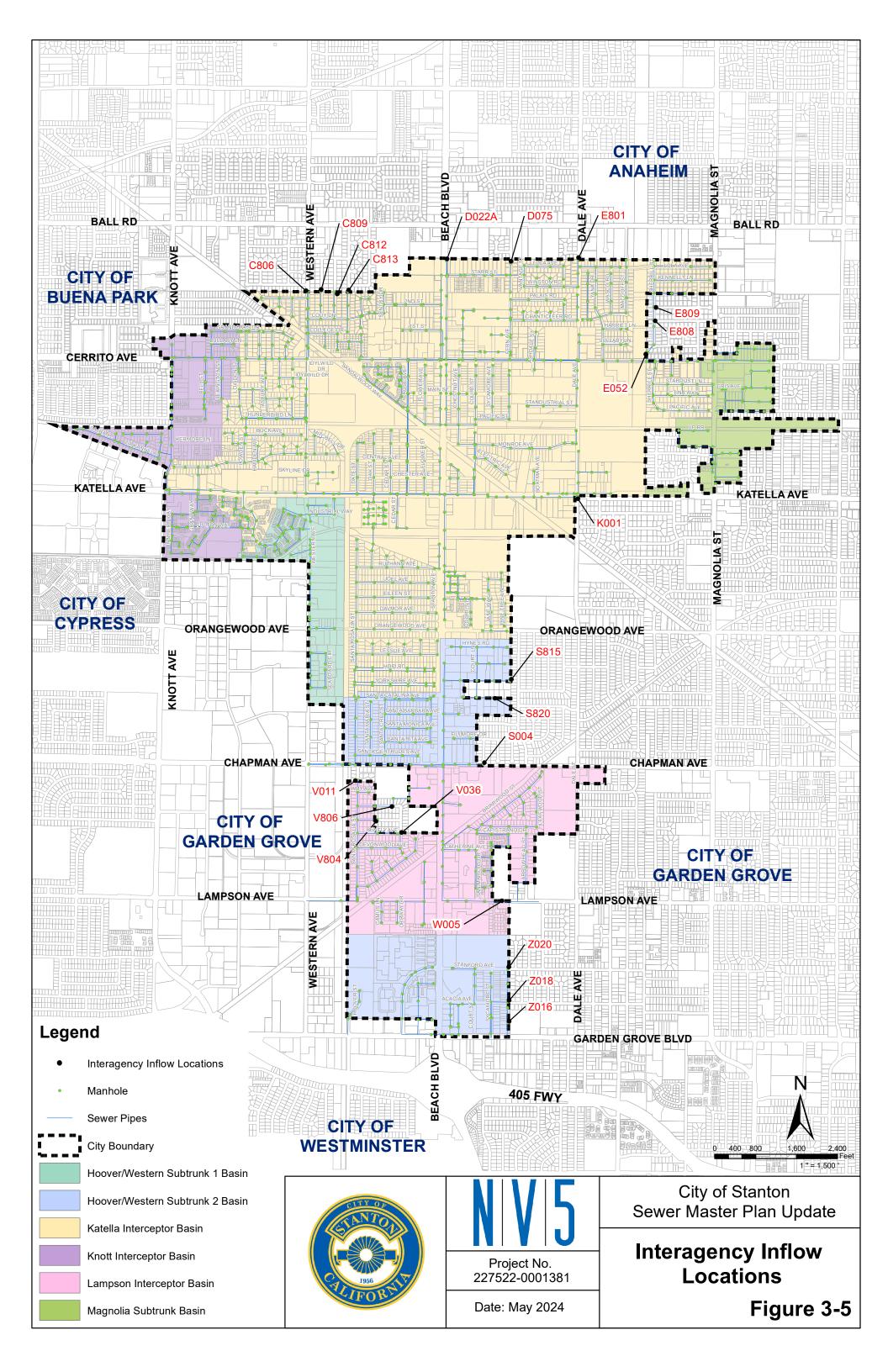
3.4 INTERAGENCY FLOW LOCATIONS

Wastewater collection systems operate primarily on a gravity flow basis. However, agency boundaries do not always align with the natural drainage contours. Consequently, some portions of a service area may drain in a direction away from the gravity collection system which requires an inter-agency agreement. Interagency agreements are developed to allow wastewater flows to be conveyed into and/or through the collection system of an adjacent district or agency.

The City of Anaheim and the Garden Grove Sanitation District (GGSD) contribute substantial wastewater flows to the City's sewer system at twenty-three (23) locations. Table 3-5 includes a summary of the inflow locations and are graphically illustrated in Figure 3-5.

Table 3-5 Interagency Inflow Locations

Manhole ID	Location	Contributing Agency	D/S Pipe Size	Tributary Area (Ac)
C800	Western Avenue, north of Ravenswood Drive	Anaheim	12"	272.2
C806	Western Avenue & Sunview Drive	Anaheim	10"	1.7
C809	Garrett Street, between Lanerose Drive & Cordy Avenue	Anaheim	8"	4.1
C812	South Mastersin Road, between Lanerose Drive & Cody Avenue.	Anaheim	8"	6.2
C813	Courtright Street, south of West Maywood Avenue	Anaheim	8"	19.4
D022A	Beach Blvd., north of Starr Street	Anaheim	12"	309.5
D075	Fern Avenue, south of Ravenswood Drive	Anaheim	8"	4.4
E052	Sherrill Street & Cerritos Avenue	Anaheim	8"	17.2
E801	Dale Street, south of Ravenswood Drive	Anaheim	8"	3.3
E808	Sherrill Street & Chanticleer Road	Anaheim	8"	7.2
E809	Sherrill Street & Palais Street	Anaheim	8"	14.9
K001	Katella Avenue & Dale Street	GGSD	10"	34.9
S004	Chapman Avenue & Arthur Drive	GGSD	15"	354.2
S815	Crager Lane, west of Jane Way	GGSD	8"	6.8
S820	South of La monte Road & west of Hearing Drive	GGSD	8"	2.5
V011	Vanguard Circle and Santa Rosalia Street	GGSD	8"	4
V806	Laurelton Avenue, between Santa Rosalia Street & Fieldgate Street	GGSD	8"	13.9
V036	Bently Avenue & Fieldgate Street	GGSD	8"	8.9
V804	Belgrave Avenue, between Santa Rosalia Street & Fieldgate Street	GGSD	8"	3
Z016	Fern Street & Garden Grove Blvd	GGSD	8"	12.7
Z018	Fern Street & Acacia Avenue	GGSD	12"	17.8
Z020	Fern Street & Stanford Avenue	GGSD	12"	27.6
W005	Lampson Ave	GGSD	8"	54
	Total			1,200.40



3.5 THUNDERBIRD LANE RELIEF SEWER

The 2013 master plan update recommended a new 8-inch sewer on Thunderbird Lane as part of CIP project CI-1. The intent of the CIP project was to address an existing capacity issue for the existing 10-inch sewer between Manhole H065 in Thunderbird Lane and Manhole H052 in Bock Avenue. The new 8-inch sewer was originally intended to re-route all flow by gravity to the existing 15-inch sewer on Western Avenue, to replace the existing 8-inch sewer on Thunderbird Lane, and to abandon the existing 10-inch sewer running to Bock Avenue. However, the project was ultimately re-designed and constructed so that the new 8-inch line functions as a relief sewer in the event the 10-inch sewer between Manhole H065 and Manhole H052 reaches capacity and backs up. The existing 10-inch sewer was not abandoned and remains the primary sewer, and if it backs up, sewage will overflow into the 8-inch relief sewer at Manhole H065A.

Due to design elevation issues, the 8-inch relief sewer on Thunderbird Lane is unable to flow to the existing 15-inch sewer on Western Avenue by normal gravity flow. Instead, the relief sewer conveys flow to a large 72-inch diameter sump manhole (Manhole H065E) at the east end of Thunderbird Lane near the intersection with Western Avenue. Once the capacity of the sump is reached, wastewater overflows by gravity to Manhole I016B on Western Avenue but also backs up the 8-inch relief sewer on Thunderbird Lane. To avoid backing up the 8-inch relief sewer, the sump in Manhole H065E must be pumped out before reaching capacity.

The relief sewer is currently monitored by a smart manhole cover at Manhole H065A which detects the wastewater level in the manhole. This location is sufficient for detecting overflows (from the 10-inch sewer) but is not able to detect if the sump manhole (H065E) has reached capacity and is backing up the relief sewer. In November 2023, NV5 found that the sump manhole had reached capacity and was backing up the relief sewer, although most of the water appeared to be stormwater that entered the relief sewer as inflow or infiltration.

To avoid potential issues in the future, NV5 recommends that the City install a new smart manhole cover at the large sump manhole (H065E) to monitor the sump level and recommends pumping out the water before the sump reaches capacity.

4.0 WASTEWATER GENERATION ANALYSIS

As the City continues to experience gradual increases in the number of wastewater customers due to growth, wastewater flows have lessened due to ongoing region-wide water conservation efforts. This chapter documents existing wastewater flows within the sewer service area and unit flows are updated for residential, commercial, and industrial areas. Peaking factors for contributing basins are developed and evaluated for dry and wet weather flows. This chapter provides description of the wastewater generation methodology including:

- Flow monitoring data
- Methodology for developing unit generation rates
- Recommended unit generation rates, and
- Estimated future wastewater flows

4.1 FLOW MONITORING

For purpose of this Master Plan Update and to characterize wastewater flows throughout the system, eight (8) temporary flow meters were strategically placed throughout the City's sanitary sewer system. The locations were selected to measure inflow from other agencies at specific locations, measure flows for specific land use designations, to update and/or confirm flow factors, and to calibrate the hydraulic model. The flows were monitored between January 28, 2023, and February 27, 2023, for a period of 32 days. Depth, velocity, and flows were measured at the designated locations for the study period. Table 4-1 includes a description of the locations where flow monitoring was conducted. It should be noted that the meters for Site 6 and Site 7 were in the same manhole but in different upstream pipes. Also, Site 8 was omitted as the meter was not able to be installed in a timely manner. Figure 4-1 illustrates the locations where temporary meters were installed.

Table 4-1 Flow Monitoring Locations

Site #	MH ID	Site ID	U/S Pipe ID	Pipe Diameter (in)	Location	Monitor Location	Area (Acres)	Reason
1	1013	ST01	1014-1013	15	7456 Skyline Dr	North	476	Calibration
2	1019	ST02	1020-1019	24	7545 Katella Ave	East	1286	Calibration
3	R804	ST03	R011-R804	15	7550 Chapman Ave	East	480	Calibration
4	N032	ST04	N033-N032	12	11212 Santa Maria St	South	123	Flow Factor Calibration
5	1042	ST05	1052-1042	8	10671 Rose St	West	13	Flow Factor Calibration
6	S004	ST06	GGSD	8	8119 Chapman Ave	North	16	Agency Inflow Calibration
7	S004	ST07	S004-S003A	18	8119 Chapman Ave	East	346	Agency Inflow Calibration
9	C800	ST09	C800-C017	12	1338 S Western Ave	North	321	Agency Inflow Calibration

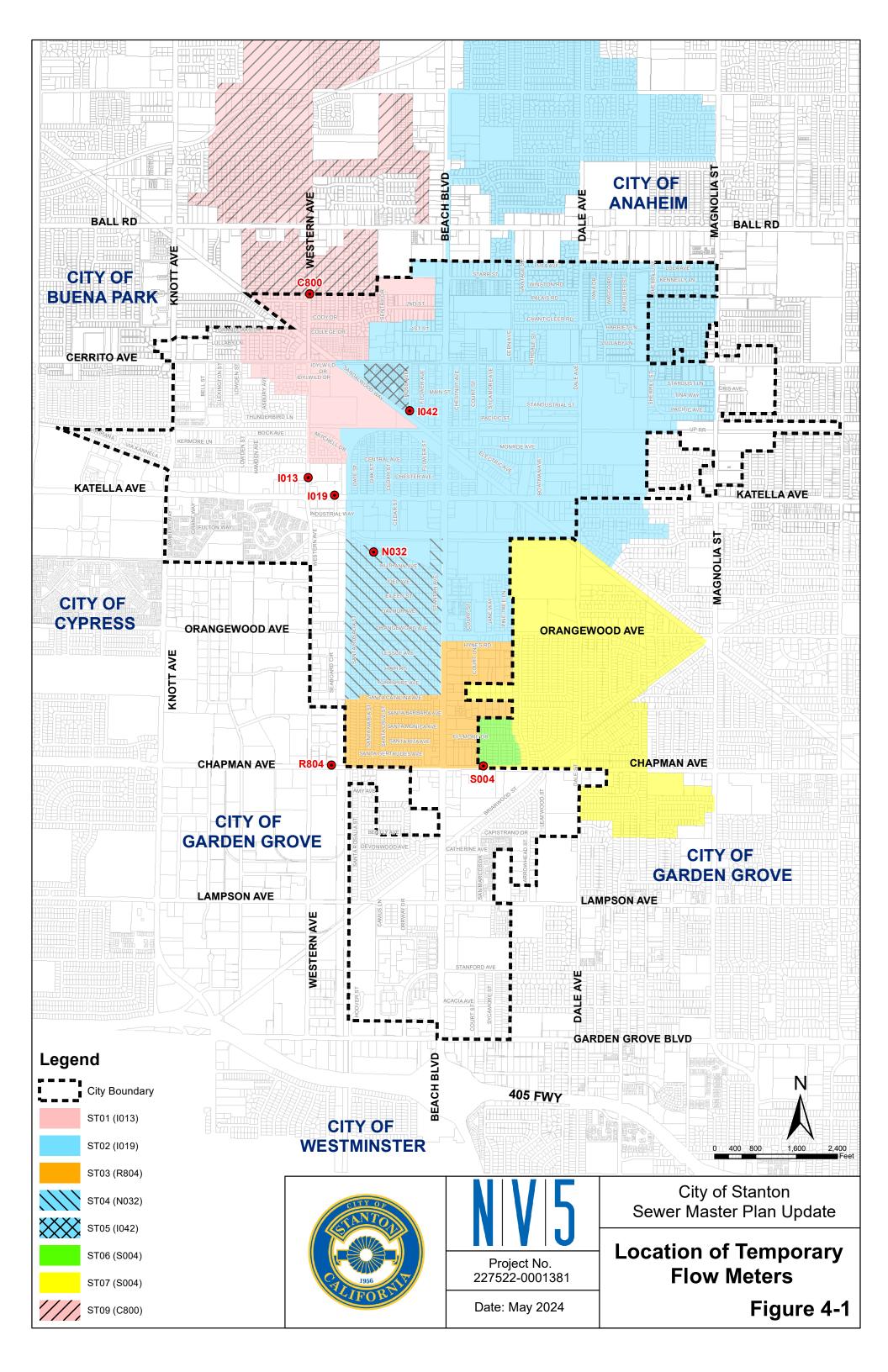


Figure 4-1 also illustrates the drainage basins from which wastewater flows enter the City's collection system. The basins are designated based on the origin of the flows including Anaheim (AM) and the Garden Grove Sanitation District (GGSD) and the meter location where the flows were captured.

4.1.1 Metered Basins

Basins were delineated for the temporary installed flow meters. Wastewater flows generated within each basin were estimated from the average flows observed at the flow meter. The following includes a description of the metered basins.

Site No. 1 - Monitoring Site 1 was located on Western Avenue between Skyline Drive and Katella Avenue on a 15-inch diameter trunk line. The tributary area to Site 1 included approximately 476 acres, which included Low Density Residential (LDR), Medium Density Residential (MDR), High Density Residential (HDR), General Commercial (GC), Open Space (OS) and inflow from a tributary area within the City of Anaheim.

Monitoring Site 9 was located upstream of Site 1 and includes flows from Anaheim along the northern boundary of the City at Western Avenue. There are approximately 321 acres included in the tributary area associated with Monitoring Site 9.

Site No. 2 - Monitoring Site 2 was located on Katella Avenue between Mercantile Avenue and Western Avenue on a 24-inch diameter trunk line near an OCSD outlet. The tributary area to Site 2 included approximately 1,286 acres, which included LDR, MDR, HDR, GC, OS, I, PI, and portions of Anaheim and Garden Grove. Tributary areas associated with monitoring Sites 4 and 5 are located within the basin that was metered at Site 2.

Monitoring Site 2 was located east of Site 1 along Katella Avenue and downstream of Sites 4 and 5 and includes flows from Anaheim along the northern boundary of the City at Western Avenue and Garden Grove along Katella Avenue on the east. There are approximately 354 acres included in the tributary areas associated with Monitoring Site 2.

- **Site No. 3** Monitoring Site 3 was located on Chapman Avenue between Hoover Street and Western Avenue on a 15-inch diameter trunk line near an OCSD outlet. The tributary area to Site 3 included approximately 480 acres, which comprised mostly LDR, MDR, GC, and a portion of Garden Grove. Captured at Site 3 are flows captured in basins for Sites 6 and 7. Both Sites 6 and 7 capture inflows from Garden Grove which are conveyed through the City of Stanton.
- **Site No. 4** Monitoring Site 4 was located on Santa Maria Street on a 12-inch diameter trunk line. The tributary area to Site 4 included approximately 123 acres, which comprised mostly LDR land use area. The purpose of monitoring at Site 4 was to capture LDR flow rates.
- **Site No. 5** Monitoring Site 5 was located at the intersection of Rose Street and Sandalwood Way on an 8-inch diameter pipeline. The tributary area to Site 5 included approximately 13 acres, which included mostly HDR land use area. The purpose of monitoring at Site 5 was to capture HDR flow rates.
- **Site No. 6** Monitoring Site 6 was located at the intersection of Chapman and Arthur Drive on an 8-inch diameter pipeline. The tributary area to Site 6 included approximately 16 acres of LDR land use area in Garden Grove along the eastern boundary of the City of Stanton. The information captured served to confirm the use of similar factors for the City of Stanton.

Site No. 7 - Monitoring Site 7 was located on Chapman Avenue between Arthur Drive and Beach Boulevard on an 18-inch diameter trunk line. The tributary area to Site 7 included approximately 346 acres, which comprised mostly LDR land use area in Garden Grove along the eastern boundary of the City downstream of monitoring Site 6. The site measured inflow from Garden Grove and the information was used to evaluate potential differences in flows that were included in the hydraulic model. It should be noted that meter data revealed that flows included in the model when compared to flow meter data appear to be conservative. The documented flows at Site 7 were 30 percent lower than what was previously included in the model.

Site No. 9 - Monitoring Site 9 was located on Western Avenue between Sunview Drive and Palais Road on a 12-inch diameter trunk line. The tributary area to Site 9 included approximately 321 acres of City of Anaheim and which appeared to include primarily LDR, HDR, schools, and some GC in the tributary area located on the north and eastern boundary of the City of Stanton.

Generally, flow monitoring at sites 1, 4, 5, 6 and 9 was performed primarily for the purpose of calibrating the model at locations with large tributary areas. Flow monitoring at sites No. 2, 3 and 7 was conducted to confirm hydraulic deficiencies identified from the City's existing sewer model analysis.

4.2 WASTEWATER GENERATION RATES

Establishing wastewater generation rates serves to characterize the existing unit rate by either population or land use, and for subsequent use in forecasting wastewater flows. Metered flows associated with land use data were used to develop planning level unit wastewater generation rates. This system-wide approach was used and based on data obtained from the temporary flow meters located at the locations described. Table 4-2 includes a summary of the flow information captured at the eight (8) locations where meters were placed.

Site #	Measured Flow (mgd)			Measured Velocity (fps)			Measured Depth (in)			
	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Max d/D
1	0.093	0.328	0.618	0.64	1.30	1.86	3.56	5.21	6.76	0.45
2	0.384	1.132	2.461	0.41	0.91	1.63	10.69	14.27	17.26	0.72
3	0.156	0.482	1.329	1.45	2.53	3.72	2.58	4.18	6.82	0.45
4	0.024	0.108	0.216	0.62	1.06	1.39	1.52	2.96	4.18	0.35
5	0.004	0.024	0.056	0.19	0.59	0.94	1.12	1.84	2.6	0.33
6	0.027	0.147	0.278	1.37	2.09	2.53	1.1	2.72	4.56	0.57
7	0.095	0.298	0.625	1.07	1.75	2.19	2.27	3.72	5.59	0.31
9	0.041	0.133	0.241	0.81	1.34	1.66	1.74	2.96	4.08	0.34

Table 4-2 Flow Monitoring Locations and Flows

4.2.1 Recommended Wastewater Generation Rates

Estimating land-use based unit generation rates serves to establish the amount of wastewater generated per day over an acre of land based on designated land use types to estimate projected wastewater flows through a specific planning horizon. Land use-based generation rates are determined through a comparison of the existing area for a land use type against multiple sources of information, including rates applied by neighboring agencies and the average wastewater flows observed at the temporary flow meters. Based on the findings, the unit flow factors were updated to reflect current data.

Updated land use categories and the respective unit generation rates are summarized in Table 4-3. The system-wide unit flow factors were updated for the Medium Density Residential, General Commercial, Public/Institutional, and Open Space/Recreational land uses to provide a closer match between the calculated and measured flows and a comparison with other local agencies including the City of Anaheim and the Garden Grove Sanitation District.

To project wastewater flows for existing and planned residential developments with a known number of dwelling units, wastewater generation per dwelling unit rates (GPD/DU) included in Table 4-3 were applied. Flow monitoring data was evaluated to confirm the reasonableness of the flow factors.

Table 4-3 Recommended Wastewater Unit Generation Rates

Land Use Designation	Max Density	Recommend	ed Unit Rate
Land Use Designation	(DU/Acre)	GPD/DU	GPD/Acre
Low Density Residential, LDR	6	250	1,440
Medium Density Residential, MDR	11	200	1,750
High Density Residential, HDR	18	200	3,000
General Mixed-Use, GMU, GLMX1	45 (67 ²)	200	-
North Gateway Mixed-Use, North, NGMX ¹	45 (90 ²)	200	-
South Gateway Mixed-Use, South, SGMX ¹	60 (90²)	200	-
Town Center Mixed-Use, Town ¹	60 (90²)	200	-
General Commercial, GC	N/A	N/A	2,000
Industrial, I	N/A	N/A	700
Public/Institutional, PI	N/A	N/A	2,000
Open Space/Recreational, OS	N/A	N/A	0
School ³	N/A	N/A	N/A

Note:

4.3 IMPACT OF ACCESSORY DWELLING UNITS

Accessory Dwelling Units (ADUs) continue to be developed throughout the City in all residential zones, primarily in Low Density Residential areas. The Housing Element projects a minimum of 14.7 new ADUs to be produced annually and there were approximately 25 ADUs permitted by the City each year in 2021 and in 2022.

Based on flow monitoring, the impact that existing ADUs have on the capacity of the wastewater collection system appears to be negligible and is covered by the recommended land use generation rates. This should be reevaluated as part of the next sewer master plan update, which should be completed approximately every 5 years. A hydraulic analysis could also be conducted for each future ADU addition on a case-by-case basis to determine if there is any impact on the capacity of the wastewater collection system downstream of the point of connection.

4.4 RHNA UNITS

The City's 2021-2029 Housing Element lists a Regional Housing Needs Allocation (RHNA) of 1,231 new housing units for the 2021 to 2029 planning period. The hydraulic model prepared for this master plan addressed the additional flow that will be generated by these units by allocating a wastewater flow for housing projects identified in the Housing Element and other planned projects, including those listed in Section 6.5.3, totaling 1,398 units which exceeds the RHNA goal. Flow was allocated by using the wastewater generation per dwelling unit rates included in Table 4-3 and the number of dwelling units for each development.

¹ For mixed-use zones, use parcel specific land use unit rate or dwelling unit generation rate.

 $^{^2\,50\%}$ bonus permitted for affordable housing.

³ For schools, use rate of 15 gpd/student.

5.0 SEWER DESIGN CRITERIA

The level of service that is provided to a community is directly related to compliance with applicable regulations and implementation of improvements planned and designed in accordance with accepted criteria. The capacity of the collection system is analyzed with a hydraulic model and findings are evaluated against established and verified design criteria to identify capacity deficiencies.

Included in this chapter is a description of the design criteria used to evaluate the existing sewer system for existing and future flow conditions and design criteria for planning and design of new sewer infrastructure.

5.1 DESIGN CRITERIA BACKGROUND

The City provides a level of service that complies with state and federal sanitary sewer regulations to assure the collection system is efficiently and effectively managed to meet public health and safety standards. The City adheres to the criteria included in its Municipal Code, the latest edition of the Standard Specifications for Public Works Contracts (Greenbook) or as directed and approved by the City Engineer which serve to assist the professional design community and the general public by consolidating information related to the City's engineering standards. Title 13, Public Utilities, of the Municipal Code includes specific requirements related to the City's sewer system.

5.2 GRAVITY SEWER DESIGN CRITERIA

The primary design criterion for gravity sewers is the depth of flow, which is calculated in the hydraulic model based on Manning's Equation. The capacity of each gravity sewer is based on the relative depth of flow within the respective pipeline reach. Gravity sewers are not typically designed to flow full, as unoccupied space at the top of the pipe is required for conveyance of sewage gasses and to provide contingent capacity for wet weather inflow and infiltration.

A secondary design criterion used for gravity sewers is pipeline velocity which is also calculated in the hydraulic model. A minimum pipeline velocity of 2 feet per second (ft/s) during peak dry weather flow (PDWF) conditions is recommended to self-clean and prevent solids from settling. However, achieving this velocity may not be feasible if there is insufficient pipeline slope or insufficient flow. Pipelines that are unable to meet the velocity criterion should be frequently maintained, flushed, and cleaned to prevent solids buildup and potential odor issues.

Friction (roughness) factors for pipelines are a required input to the model. The factors vary with the material and the age of the pipe. Since it appears the City's wastewater collection system consists primarily of VCP, a roughness factor as indicated by a Manning's coefficient ("n") of 0.013 is used to evaluate the existing gravity sewers and for projection of future sizing needs. Previous studies have shown that this value typically accounts for the roughness of most pipes, joints, and fouling that occurs after several years of operation. The applied design criteria are summarized in Table 5-1.

Table 5-1 Design Criteria - Gravity Sewers

Criteria for All Pipes						
Pipeline Roughness Coefficient	n = 0.013					
Maximum d/D Ratio (PWWF), All Pipe Diameters	0.82					
Criteria for Existing Pipes						
Maximum d/D Ratio (PDWF), All Pipe Diameters	0.62					
Criteria for New or Upsized Pipes						
Maximum d/D Ratio (PDWF), Diameter ≤ 15-inches	0.50					
Maximum d/D Ratio (PDWF), Diameter ≥ 18-inches	0.62					
Minimum Pipeline Diameter	8-inches					
Minimum Pipeline Velocity at PDWF ¹	2 feet per second					

¹ Minimum pipeline velocity criteria shall be adhered to when feasible

Analysis of the City's existing gravity sewer system was based upon the calculated peak dry weather flows. Any segment of existing sewer pipe with a depth to diameter ratio (d/D) of 0.62 or greater was considered hydraulically deficient. This allows for approximately 40 percent capacity above the peak dry weather flow for inflow and infiltration (I/I) based on the assumption that the maximum capacity of a circular pipe will occur when d/D = 0.82 rather than the theoretical maximum that occurs at d/D = 0.938.

The extra pipeline capacity allows for the possibility that actual wastewater flows may be slightly higher than anticipated, especially during the hours when instantaneous or intermittent peaks may occur. Additionally, the area above the water surface allows for aeration of the sewer flows to reduce the possibility of septic conditions and generation of odors.

6.0 HYDRAULIC MODEL UPDATE

To perform the detailed analysis of the sewer collection system, the City's existing hydraulic sewer model, which simulates the operating properties of the wastewater collection system was updated. The original model was developed in InfoSewer by Innovyze, a GIS based modeling software. InfoSewer was used to update the model and perform steady state analysis of the wastewater flows throughout the system for this Master Plan Update. This chapter provides a description of the hydraulic model update and includes:

- An overview of the hydraulic model and methodology
- Model development, flow allocation, and calibration
- Peaking factors

6.1 BACKGROUND

A capacity analysis of the City wastewater collection system was completed to identify sewer reaches that may be deficient under existing design criteria and to identify any upsizing necessary to accommodate existing and projected dry and wet weather wastewater flows. The capacity analysis serves to identify phased facility improvements to reduce the potential for sanitary sewer overflows and allow for projected growth within the City's service area while maintaining a minimum level of service to its residents relative to the capacity of its assets.

The sewer model includes the City's wastewater infrastructure including manholes and sewer pipelines (excluding laterals and private sewers). Also included are the connections to OCSD's five (5) facilities within the City's boundary including: Knott Interceptor, Katella Interceptor, Hoover- Western Subtrunk, Magnolia Subtrunk, and the Lampson Interceptor.

6.2 METHODOLOGY

The principal tool utilized in the capacity analysis was a hydraulic model. The hydraulic model simulates flow conditions, including wastewater flow depth, flow rate, and velocity within the pipelines and manholes in the City's wastewater collection system. The model uses the projected average dry weather flows and determines peak flows based upon the peaking factors listed in Section 6.7.

6.3 LIMITATIONS OF HYDRAULIC MODELING

The hydraulic sewer model was utilized as the primary planning tool for the sewer capacity analysis and provides a reasonable representation of actual flow conditions within a sanitary sewer system in response to existing and future sewage loading. The accuracy of the simulation, however, is directly related to the accuracy of the model input data, including physical parameters and sewage loading projections. In the future, the accuracy of the City's model could be improved by surveying all sewer manholes and pipe inverts, conducting additional flow monitoring, and updating the model.

6.4 MODEL UPDATE

The City's hydraulic model combines information of the physical and operational characteristics of the wastewater collection system and performs calculations to solve a series of mathematical equations to simulate the flows in pipes. The model update process consisted of the following steps, as described below:

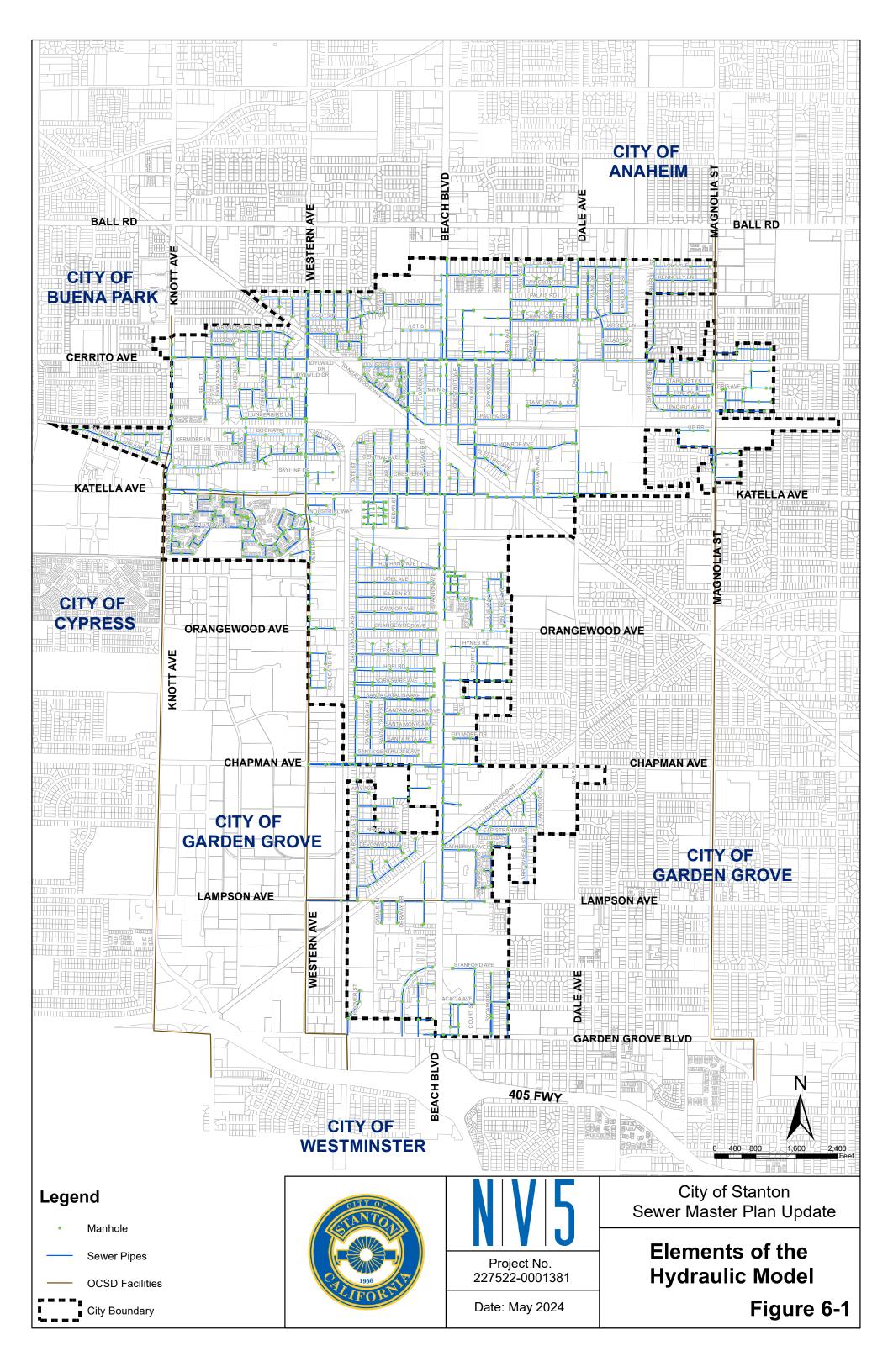
- The InfoSewer hydraulic model obtained from the City was reviewed against the City's GIS data.
 Where discrepancies were noted, the model was updated to reflect corrections and current field conditions.
- The updated hydraulic model was reviewed to verify the model data was input correctly and the flow direction, size, and layout of the modeled pipelines were logical. Quality assurance and quality control (QA/QC) involved comparing the updated hydraulic model with other limited data sources such as record drawings and discussion with City personnel.

It should be noted that there was information included in the City's GIS found to be incorrect. Where possible and information was available, corrections and updates were made based on record drawings, Closed Circuit Television (CCTV) inspections, input from City personnel, and field verifications performed by City staff. Only active sewers owned by the City are included in the hydraulic model. Sewer laterals and private sewers were not included nor analyzed.

6.4.1 Hydraulic Model Elements

An overview of the hydraulic model is presented in Figure 6-1. The major elements of the hydraulic model and the required input parameters are summarized below:

- Pipes: Sewer mains are represented as pipes in the hydraulic model. Input parameters for pipes include length, friction factor (Manning's n values), pipe diameter, and pipe shape.
- Junctions: Sewer manholes, as well as other locations where sewer pipe sizes change, sewer
 pipes intersect or where sewer pipes start or end, are represented as junctions. Input parameters
 for junctions are invert elevation and maximum depth.
- Outfalls: Outfalls represent areas where flow leaves the system. For sewer system modeling, outfalls typically represent the connection to the inlet at a wastewater treatment plant and/or the boundary point for the sewer system. Input parameters for outfalls include outfall type and invert elevation.
- Load Allocation: The load represents the wastewater flows discharged into the wastewater collection system and used to either maintain or size the infrastructure for existing and future conditions.



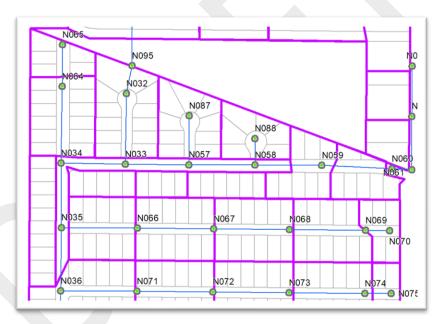
6.5 WASTEWATER LOAD ALLOCATION

A significant component of the hydraulic model is the quantity of average dry weather wastewater flows generated and the method used to distribute the flows throughout the sewer system. While there are various methods to assign wastewater flows in hydraulic models, adequate estimates of the wastewater loads are an important part in maintaining and sizing sewer system infrastructure both for existing and future conditions.

For this update, wastewater loads were primarily allocated based on existing and future land use and the recommended wastewater generation rates listed in Chapter 4.

The general process for assigning wastewater loads was as follows:

• The City's service area is divided into loading polygons. The loading polygons were previously generated and where appropriate were updated for this update. Polygons provide a means to divide an area into regions that bisect known points (junctions). These polygons typically represent the bounded region closest to each of the junctions. Each loading polygon represented the geographic area that contributes flows to a specific manhole.



- For each loading area, the existing land use areas and the recommended wastewater generation
 unit flow factors were used by the model to automatically allocate average flows to each manhole.
 For the 10-year planning horizon, land use factors were applied as average loads to the specific
 scenario in the model.
- PDWFs and PWWFs are calculated in the model based on the peaking factors listed in Section 6.7.
- Point loads were used to account for schools, outside agencies contributing to the City's system, and future flows from vacant parcels and the City's planned projects.

6.5.1 Schools

The City's existing land use map and general plan map were used to designate land uses for the model. Schools were assigned a distinct land use designation. The flows included in Table 6-1 below, were included in the previous model and applied at the respective manholes. The flow factors remained unchanged.

Manhole ID	School	Location	No. of Students	Unit Flow Factor (gpd/stu)	Existing ADWF (mgd)	Future ADWF (mgd)
D037 & E003	Robert M. Pyles Elementary	10411 South Dale Street	780	15	0.012	0.012
S004 & S003A	St Polycarp Elementary	8182 Chapman Ave	169	15	0.003	0.003
N095	Early Childhood Education Center at Carver Preschool	11150 Santa Rosalia Street	90	15	0.001	0.001
		Total	1,039		0.016	0.016

Table 6-1 School Loads

6.5.2 Outside Agencies

Neighboring agencies including the City of Anaheim and the Garden Grove Sanitation District convey flow through the City's wastewater collection system. There are eleven (11) locations at which City of Anaheim discharges wastewater flows into the City's wastewater collection system and an additional twenty-four (24) locations at which Garden Grove discharges flow into the City. The average dry weather flows at these locations are estimated based up the tributary land uses and the unit flow factors applied by the adjoining agencies. The following includes a summary of the methodology applied to determine flow contributions from each adjoining agency.

6.5.2.1 City of Anaheim

The City of Anaheim was contacted and current flow information, specifically at the locations at which the City of Anaheim flows discharge in the City's collection system, was requested. The City does not conduct regular flow monitoring of their system flow but provided access to Anaheim's West Anaheim Master Plan of Sanitary Sewers (WAMPSS), dated June 2019.

As noted in Chapter 4, flow monitoring was performed at Site 8 which captured flows from Anaheim entering the City at manhole C800. The results of the temporary flow monitoring indicate that flows included in Anaheim's WAMPSS are overly conservative. Additionally, discrepancies in the 2013 Master Plan document and the hydraulic analysis were identified, specifically the documented existing ADWF and what was included in the model. Model data reflected a reduction of approximately ten percent (10%) than what was published. As neither the basis nor reasoning was provided or could be determined, and as the WAMPSS does not include specific flow information at the inflow locations, for modeling purposes, the existing average dry weather flow at the metered location was adjusted to reflect the metered flows. The flows at the remaining inflow locations remained unchanged. Table 6-2 includes a summary of the average dry weather flows that were input into the City's model as point

source flows at the respective connection locations. These flows were used for both existing and future conditions considering that Anaheim is mostly built-out and because most existing flow projections seem to be conservative.

6.5.2.2 Garden Grove Sanitation District

The Garden Grove Sanitation District (GGSD) was contacted and current flow information, specifically at the locations at which GGSD flows discharge in the City's collection system, was requested. GGSD does not conduct regular flow monitoring of their system flow but provided access to the *Garden Grove System Evaluation and Capacity Assurance Plan*, dated April 2012. The document does not include specific flow data for the inflow locations.

As previously noted, flows measured at Site 7 (Manhole S004) included wastewater flows from GGSD. Flow data captured revealed that actual flows are significantly lower than what was included in the 2013 Master Plan. The documented metered flows were approximately 30% lower than what was included in the previous hydraulic model. For purposes of this Master Plan Update, the wastewater flow at this specific inflow location was updated to reflect the actual metered flow. However, GGSD has not updated its master plan and additional information was not available at the time this update was performed. Therefore, for modeling purposes, the existing average dry weather flow at the metered location was adjusted to reflect the metered flows. The flows at the remaining inflow locations remained unchanged. Table 6-2 includes a summary of the average dry weather flows that were input into the City's model as point source flows at the respective connection locations. These flows were used for both existing and future conditions considering that Garden Grove is mostly built-out and because most existing flow projections seem to be conservative.

Table 6-2 Summary of Average Dry Weather Flows from Anaheim and Garden Grove

Manhole ID	Location	Contributing Agency	D/S Pipe Size	Tributary Area (Ac)	ADWF (mgd)
C800	Western Avenue, north of Ravenswood Drive	Anaheim	12"	272.2	0.146
C806	Western Avenue and Sunview Drive	Anaheim	10"	1.7	0.002
C809	Garrett Street, between Lanerose Drive and Cordy Avenue	Anaheim	8"	4.1	0.005
C812	South Mastersin Road, between Lanerose Drive and Cody Avenue.	Anaheim	8"	6.2	0.011
C813	Courtright Street, south of West Maywood Avenue	Anaheim	8"	19.4	0.022
D022A	Beach Blvd., north of Starr Street	Anaheim	12"	309.5	0.359
D075	Fern Avenue, south of Ravenswood Drive	Anaheim	8"	4.4	0.005
E052	Sherrill Street and Cerritos Avenue	Anaheim	8"	17.2	0.020
E801	Dale Street, south of Ravenswood Drive	Anaheim	8"	3.3	0.0038
E808	Sherrill Street and Chanticleer Road	Anaheim	8"	7.2	0.008
E809	Sherrill Street and Palais Street	Anaheim	8"	14.9	0.017
K001	Katella Avenue and Dale Street	GGSD	10"	34.9	0.071
S004	Chapman Avenue and Arthur Drive	GGSD	15"	354.2	0.495
S815	Crager Lane, west of Jane Way	GGSD	8"	6.8	0.004
S820	South of La monte Road and west of Hearing Drive	GGSD	8"	2.5	0.004
V011	Vanguard Circle and Santa Rosalia Street	GGSD	8"	4	0.005
V806	Laurelton Avenue, between Santa Rosalia Street and Fieldgate Street	GGSD	8"	13.9	0.020
V036	Bently Avenue and Fieldgate Street	GGSD	8"	8.9	0.008
V804	Belgrave Avenue, between Santa Rosalia Street and Fieldgate Street	GGSD	8"	3	0.003
Z016	Fern Street and Garden Grove Blvd	GGSD	8"	12.7	0.031
Z018	Fern Street and Acacia Avenue	GGSD	12"	17.8	0.024
Z020	Fern Street and Stanford Avenue	GGSD	12"	27.6	0.038
W005	Lampson Ave	GGSD	8"	54	0.143
			Total	1,200	1,471

6.5.3 Planned Projects

The City has identified several development projects that were in the planning stage or in construction at the time this Master Plan Update was prepared. The wastewater flows were determined based on dwelling unit generation rates and the number of units for each project. Each project was modeled as a point load in the Future (10-year planning horizon) condition. Table 6-3 includes a summary of the City's planned project included in the hydraulic analysis. A detailed summary is included in Appendix 1.

Table 6-3 Planned Projects

Project Name	Developer	Project Address	Status	No. of Units
Lighthouse	KB Home	10871 Western Ave.	Completed	40
Assemblage	KB Home	7455 Katella Ave.	Completed	36
VRV	Bonanni	12736 Beach Blvd.	Completed	300
Cloud House	Bonanni	12331-12435 Beach Blvd.	In Progress	321
Bigsby	Bonanni	12200 Beach Blvd.	In Progress	79
ShareMyCoach	Joe Hill	10775 Beach Blvd.	In Progress	1
Tina-Pacific	Brandywine	Tina Way & Pacific Way	Housing Element	161
Super King / Magnolia Plaza	N/A	10560 Magnolia Ave.	Completed	1
Attached Condos	Huy Tran	11752 Beach Blvd	Completed	17
Tahiti	Jamboree	11850-11870 Beach Blvd.	Completed	60
Riviera	Jamboree	11892 Beach Blvd	Housing Element	19
Townhome Units	Loc Tran	7320 Katella Ave.	In Progress	6
Stanton Inn	Jamboree Housing	7161 Katella Ave.	Completed	72
Detached Single Family Units	Sean Singh	7082 Kermore Street	Plan Check	4
Townhome Units	An Ha	7162 Kermore Street	Completed	4
Multi Family Unit	Christopher Caohuynh	7131 Kermore Street	Plan Check	5
ORCO Block Site	Stanton Land LLC	8042 Katella Avenue	In Progress	159
Detached Condos	James Le	8222 Starr Street	Plan Check	5
SB-9 Urban Lot Split (2 duplexes)	Henry Cao & Phat Ho	10861 Oak Street	Planning Commission	4
Medical Building	Scott Belair	10692 Beach Blvd.	Planning Commission	4
Single Family Detached Condos	Emily Fahrenhoiz	7091 Kermore Lane	In Progress	1

6.6 MODEL CALIBRATION

Hydraulic model calibration is a critical step in the hydraulic modeling effort. Calibrating the model results to match measured values assures the most accurate results possible. The calibration process consists of calibrating to both dry and wet weather conditions. The model was calibrated based on the flow monitoring conducted at the eight (8) temporary flow meters.

The flow monitoring data captured at each of the monitoring locations included data related to specific land use as well as inflows at connections with adjoining agencies. The model was calibrated by refining estimated model parameters under dry and wet weather conditions to simulate model flow conditions that reasonably approximate the measured flow conditions.

6.6.1 Dry Weather Flow Calibration

Dry weather flow calibration serves to accurately model the base wastewater flows in the service area. To load the areas tributary to the flow meters, dry weather flows were calibrated to the flow monitoring data captured between January 28, 2023 and February 27, 2023.

The calibration process included verification that the calculated average flow from the areas tributary to the flow meters matched the measured average flows at each flow meter. The calculated average flow was subsequently adjusted to reflect the flow factor assigned to the various land use types within the tributary area.

A calibrated dry weather diurnal curve was developed based on the flow monitoring data. Figure 6-2 illustrates the calibration process and reflects the documented flows at each of the metered sites. The dashed red line (best fit) represents the calibrated average hourly flow.

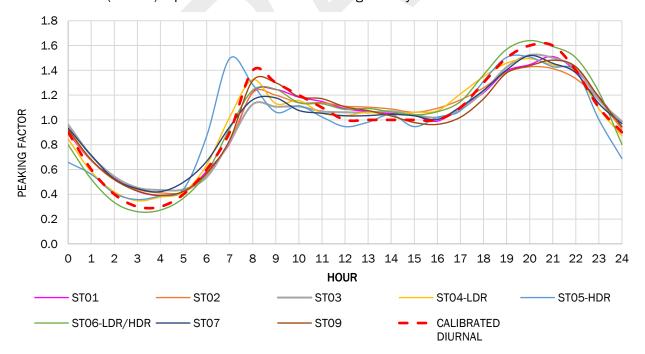


Figure 6-2 Average Dry Weather Diurnal Curves

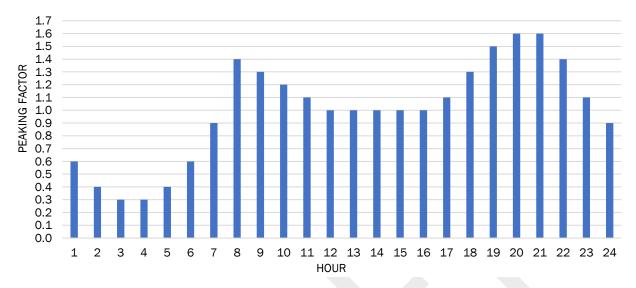


Figure 6-3 also illustrates the calibrated diurnal curve with hourly peaking factors.

Figure 6-3 Calibrated Diurnal Curve

6.6.2 Wet Weather Flow Loading and Calibration

Collection systems may be compromised when they must transport higher flows than what they were designed to convey, which can result in a discharge of untreated wastewater into the environment.

Wet Weather Flow Loading

Inflow and Infiltration (I&I) generally consists of wet weather infiltration and stormwater inflow that enters the wastewater collection system. Infiltration may enter the collection system through defects in the system pipelines which may include, cracks, broken pipe, offset joints, break-in connections, and manholes due to temporary high groundwater levels as a result of rainfall percolation or consistent high water levels. Typically, infiltration from rainfall events can be estimated using flow metering technology and rainfall records. However, infiltration that occurs year-round is generally detected by performing inspections of the pipelines and manholes and occur in areas with high groundwater elevations.

Wet Weather Calibration

Wet weather flow calibration assures accurate modelling of anticipated I&I into the sewer system. I&I can be interpreted as the difference between dry weather flow and wet weather flow. Wet weather flows were calibrated to a rain event that occurred on February 25, 2023. Based on the National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Point Precipitation Frequency Estimates and NOAA precipitation data, this rain event is estimated to have been between a 10-Year and 25-Year frequency event, a historically large rain event.

6.7 PEAKING FACTORS

The wastewater unit flow factors were used to generate average dry weather flows entering the collection system. To determine the adequacy of the collection system to convey peak flows, PDWFs were determined by using the flow data collected at each site to determine the average daily weather flows and maximum daily flows over a 24-hour period. The measured peaking factors at each site were averaged to determine the estimated peaking factor which was applied to the average dry weather flows loaded into the model and converting the total average flow to peak dry weather flows.

Table 6-4 includes a summary of the average and maximum dry and wet weather flow data captured at the eight metered locations. Additionally, the summary includes the calculated dry weather and wet weather peaking factors.

Site #	_	ther Flow gd)		ather Flow ngd)	Average Dry Weather Flow	Average Wet Weather Flow	
	Avg	Max	Avg	Max	Peak Factor1	Peak Factor ²	
1	0.336	0.508	0.379	0.631	1.51	1.24	
2	1.108	1.564	1.472	2.541	1.41	1.62	
3	0.470	0.701	0.724	1.365	1.49	1.95	
4	0.107	0.160	0.137	0.230	1.49	1.44	
5	0.023	0.037	0.034	0.063	1.60	1.70	
6	0.146	0.233	0.188	0.278	1.59	1.19	
7	0.296	0.428	0.394	0.704	1.45	1.64	
9	0.134	0.199	0.157	0.241	1.49	1.21	

Table 6-4 Dry and Wet Weather Peaking Factors

The average of all the dry weather flow peaking factors listed in Table 6-4 is approximately 1.5. However, a peaking factor of 1.6 was selected and applied to the hydraulic model considering that the highest calculated peak factor was 1.6.

The average of all the wet weather flow peaking factors listed in Table 6-4 is approximately 1.5. However, a peaking factor 1.4 was selected and applied to the hydraulic model, considering that the rain event that occurred during flow monitoring was a historically large rain event. The Garden Grove Sanitation District design criteria also lists a wet weather flow peaking factor of 1.4.

In summary, the following peaking relationship was selected and applied to the analysis for this Master Plan Update:

- Peak Dry Weather Flow (PDWF) = 1.6 x Average Dry Weather Flow (ADWF)
- Peak Wet Weather Flow (PWWF) = 1.4 x Peak Dry Weather Flow (PDWF)

¹ Average dry weather flow peak factor is calculated as maximum dry weather flow divided by average dry weather flow.

 $^{^{2}}$ Average wet weather flow peak factor is calculated as maximum wet weather flow divided by maximum dry weather flow.

7.0 HYDRAULIC / CAPACITY ANALYSIS

7.1 EVALUATION CRITERIA

Per the design criteria listed in Chapter 5, existing sewer pipelines are considered hydraulically deficient if they have a d/D ratio greater than or equal to 0.62 during peak dry weather flow (PDWF) conditions or they have a d/D ratio greater than or equal to 0.82 during peak wet weather flow (PWWF) conditions. However, hydraulically deficient sewer pipelines shall not be identified as a Capital Improvement Program (CIP) project for immediate replacement/upsizing. Instead, hydraulically deficient sewer pipelines are to be identified as improvement projects if either or both of the following conditions exist:

- There are corresponding operations and maintenance issues associated with the pipeline
- The pipeline is identified for replacement due to condition related deficiencies

If either of these situations occurs, the pipeline is to be replaced and upsized per the design criteria listed in Chapter 5 for new or upsized pipes, which is more stringent than the design criteria for existing pipes.

7.2 CAPACITY ANALYSIS

Wastewater flow projections were developed for 2023 (existing) conditions and for the 10-year planning horizon (2033, future) conditions. Future wastewater flow projections were determined by applying land use unit generation rates to the land use acreages per land use designation or by applying dwelling unit (DU) generation rates where the number of DUs is known for planned developments. These projections form the basis for sewer input flows to the hydraulic model, and analyses of future capacity needs in the wastewater collection system. Refer to Section 4 regarding wastewater generation rates.

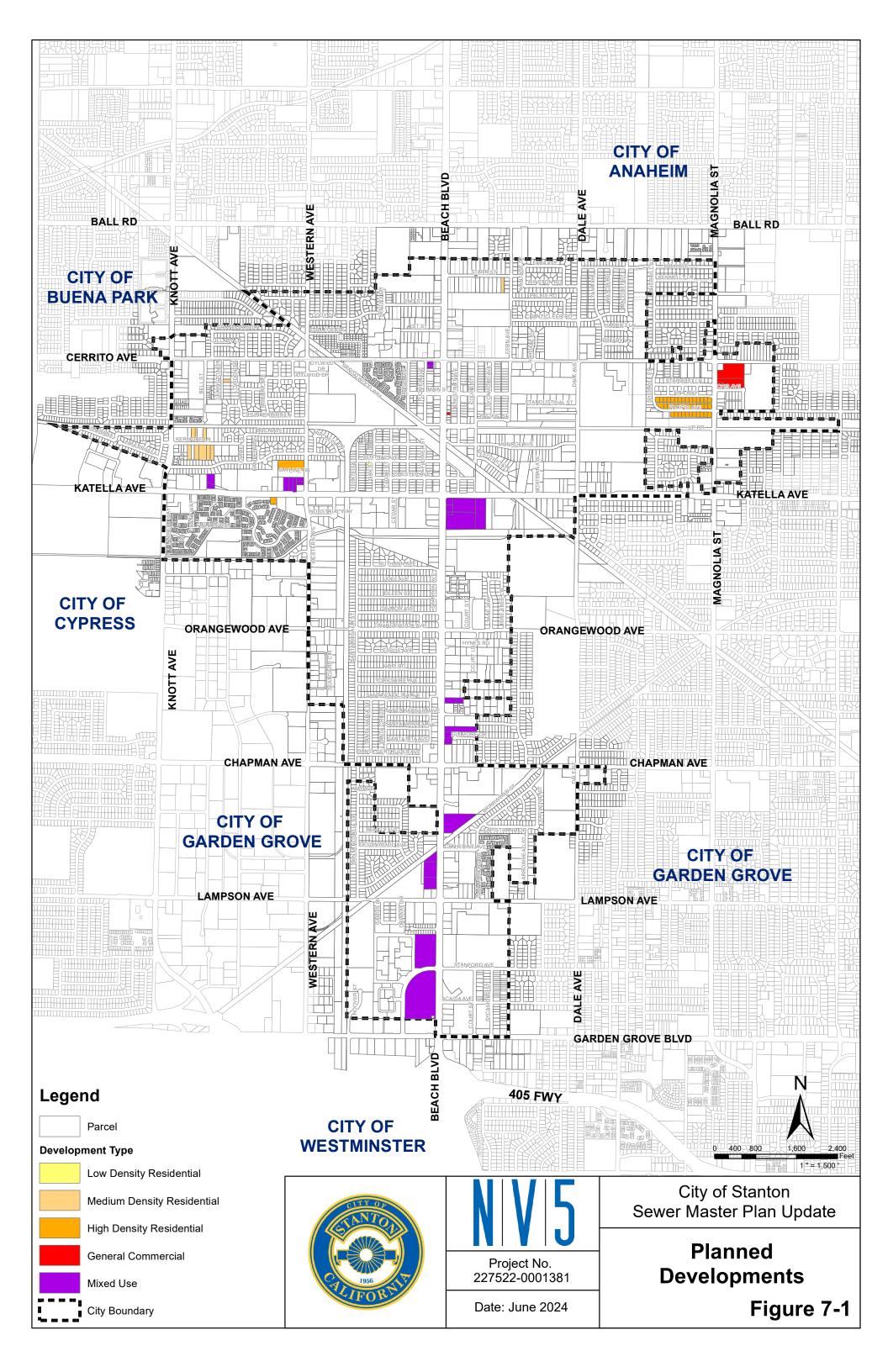
A capacity analysis of the existing collection system was performed under existing and future dry and wet weather flow conditions to identify potential improvement projects. The hydraulic analysis was performed for each of the following scenarios:

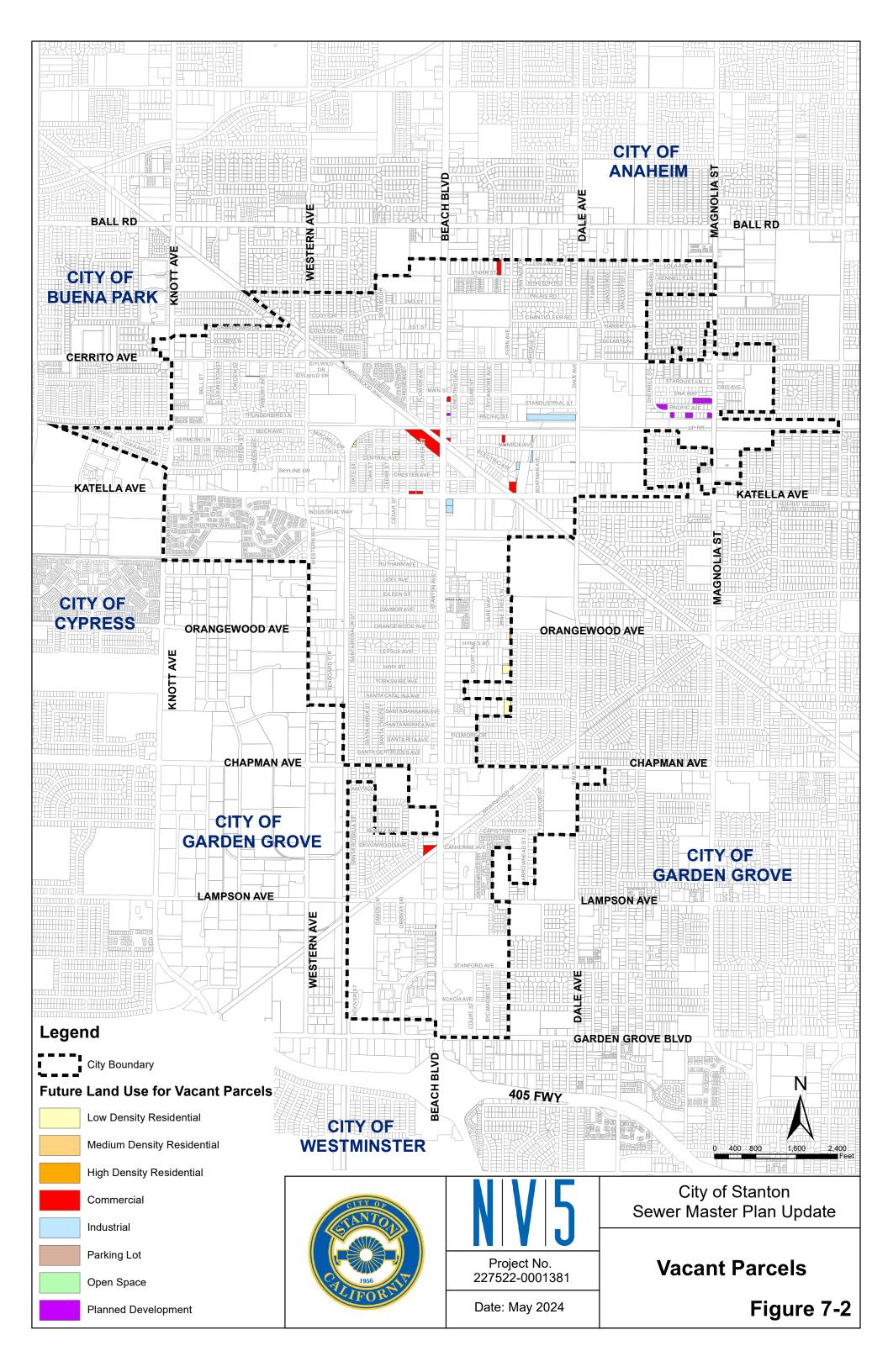
- 2023 Peak Dry Weather Flow (Existing)
- 2023 Peak Wet Weather Flow (Existing)
- 2033 Peak Dry Weather Flow (10-year, Future)
- 2033 Peak Wet Weather Flow (10-year, Future)

A 10-year planning horizon was analyzed to project future wastewater flows for incorporation into the hydraulic model. Future flows to be conveyed in the wastewater collection system included flows expected to be generated from the anticipated development of parcels that include planned redevelopment of parcels as identified by the City and the eventual development of remaining vacant parcels.

A summary of anticipated developments with estimated housing units is summarized in Appendix 1, which includes information pertinent to the planned developments including the address, status at the time the Master Plan Update was prepared, APNs associated with the development, and MH ID at which the flows were loaded in the hydraulic model. An overview of the planned developments is illustrated in Figure 7-1.

Additionally, there were forty-nine (49) additional parcels identified as vacant. All forty-nine (49) vacant parcels were loaded into the model based on the designated land use type, acreage, and by applying the recommended wastewater generation rate. A summary of vacant parcels with estimated wastewater flow is included in Appendix 2. Figure 7-2 illustrates the remaining vacant parcels for which flow projections were estimated and included to analyze future flow conditions.





7.3 CAPACITY ANALYSIS FINDINGS

The following includes a summary of the capacity analysis findings, specifically for each scenario and the pipelines identified to be deficient in capacity based on the criteria included in Chapter 5. As previously noted, existing pipelines with a d/D ratio of 0.62 or greater at PDWF or a d/D ratio of 0.82 or greater at PWWF are identified as potential improvement reaches. Results of the hydraulic analysis for each system pipeline are included in Appendix 3. Tables 7-1 and 7-2 include a summary of the pipelines not meeting the evaluation criteria for each scenario and the location of these sewer pipelines is illustrated on Figure 7-3.

Diameter		Length		Existing PDWF			Future PDWF		
Pipe ID	(in)	(ft)	Slope	Total Flow (mgd)	Velocity (ft/s)	d/D	Total Flow (mgd)	Velocit y (ft/s)	d/D
1012-1001	15	9	-0.006	0.81	1.02	1.00	0.85	1.07	1.00
W003-W002	8	364	0.002	0.26	1.69	0.64	0.26	1.69	0.64
W004-W003	8	360	0.002	0.25	1.68	0.62	0.25	1.68	0.62
W005-W004	8	338	0.002	0.25	1.68	0.62	0.25	1.68	0.62

Table 7-1 Pipelines Not Meeting Evaluation Criteria for Dry Weather Conditions

Table 7-2 Pipelines Not Meeting Evaluation Criteria for Wet Weather Conditions

Pipe ID	Diameter (in)	Length (ft)	Slope	Existing PWWF			Future PWWF		
				Total Flow (mgd)	Velocity (ft/s)	d/D	Total Flow (mgd)	Velocity (ft/s)	d/D
1012-1001	15	9	-0.006	1.13	1.43	1.00	1.19	1.51	1.00
W003-W002	8	364	0.002	0.36	1.59	1.00	0.36	1.59	1.00
W004-W003	8	360	0.002	0.35	1.77	0.82	0.35	1.77	0.82
W005-W004	8	338	0.002	0.35	1.77	0.82	0.35	1.77	0.82

7.3.1 Peak Dry Weather Flow (PDWF) Conditions

Existing (2023) PDWF Conditions

Four pipe segments (I012-I001, W003-W002, W004-W003, and W005-W004) were identified as hydraulically deficient under existing peak dry weather flow conditions. The deficiency at the intersection of Katella Avenue and Western Avenue, in pipe segment I012-I001 (15-inch pipe diameter) is due to a backwater effect caused by flow entering from the east along Katella Avenue via the 24-inch diameter pipeline that discharges at MH I018 and the reverse pipe slope in segment I012-I001, which results in a d/D of 1.0, exceeding the d/D criteria of 0.62.

Deficiencies were also identified for pipe segments W003-W002, W004-W003, and W005-W004 (8-inch pipe diameter) along Lampson Avenue east of Beach Boulevard. The hydraulic analysis showed d/D ratios of 0.64 and 0.62 and the deficiencies are due to the pipeline being undersized. This pipeline is owned by the city but is shared with the Garden Grove Sanitation District (GGSD), under the 2008

Joint Use (Cooperative) Sanitary Sewer Agreement included in Appendix 5. These pipeline segments were also identified as deficient by the GGSD and was listed as CIP project No. 52 in their 2012 System Evaluation and Capacity Assurance Plan, which proposed upsizing the existing 8-inch pipeline to a 12-inch pipeline. However, per GGSD staff that project was not implemented.

Future (2023) PDWF Conditions

Similar to existing peak dry weather conditions, four pipe segments (I012-I001, W003-W002, W004-W003, and W005-W004) were identified as hydraulically deficient under future peak dry weather flow conditions with d/D ratios exceeding the d/D criteria of 0.62.

7.3.2 Peak Wet Weather Flow (PWWF) Conditions

Similar to peak dry weather flow conditions, four pipe segments (I012-I001, W003-W002, W004-W003, and W005-W004) were identified as hydraulically deficient under existing (2023) and future (2033) peak wet weather flow conditions with d/D ratios exceeding the d/D criteria of 0.82.

7.4 RECOMMENDATIONS FOR PIPELINES WITH CAPACITY DEFICIENCIES

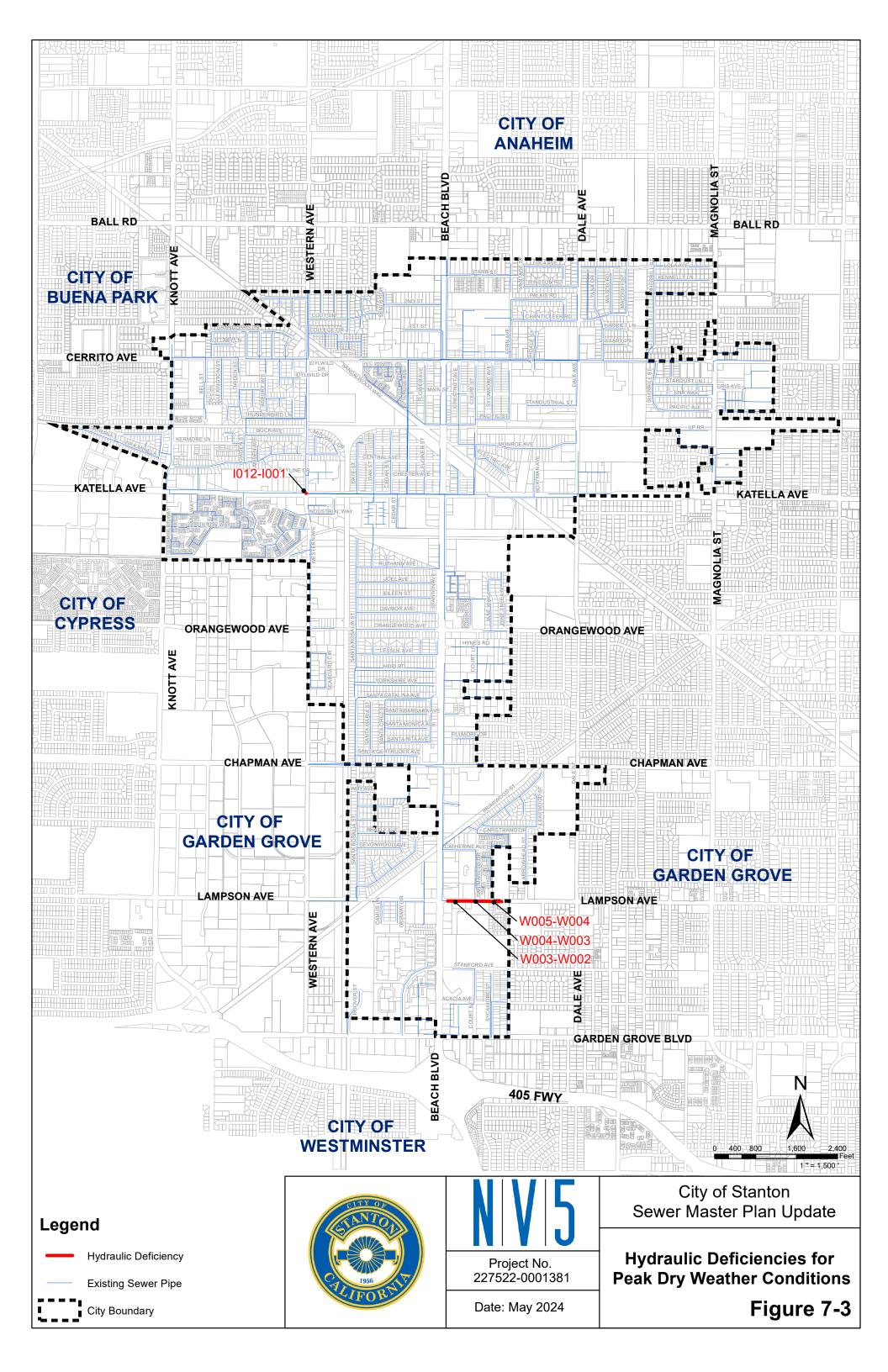
The capacity analysis, described above, identified four pipe segments that are hydraulically deficient. Recommendations for each deficient pipe segment are provided below.

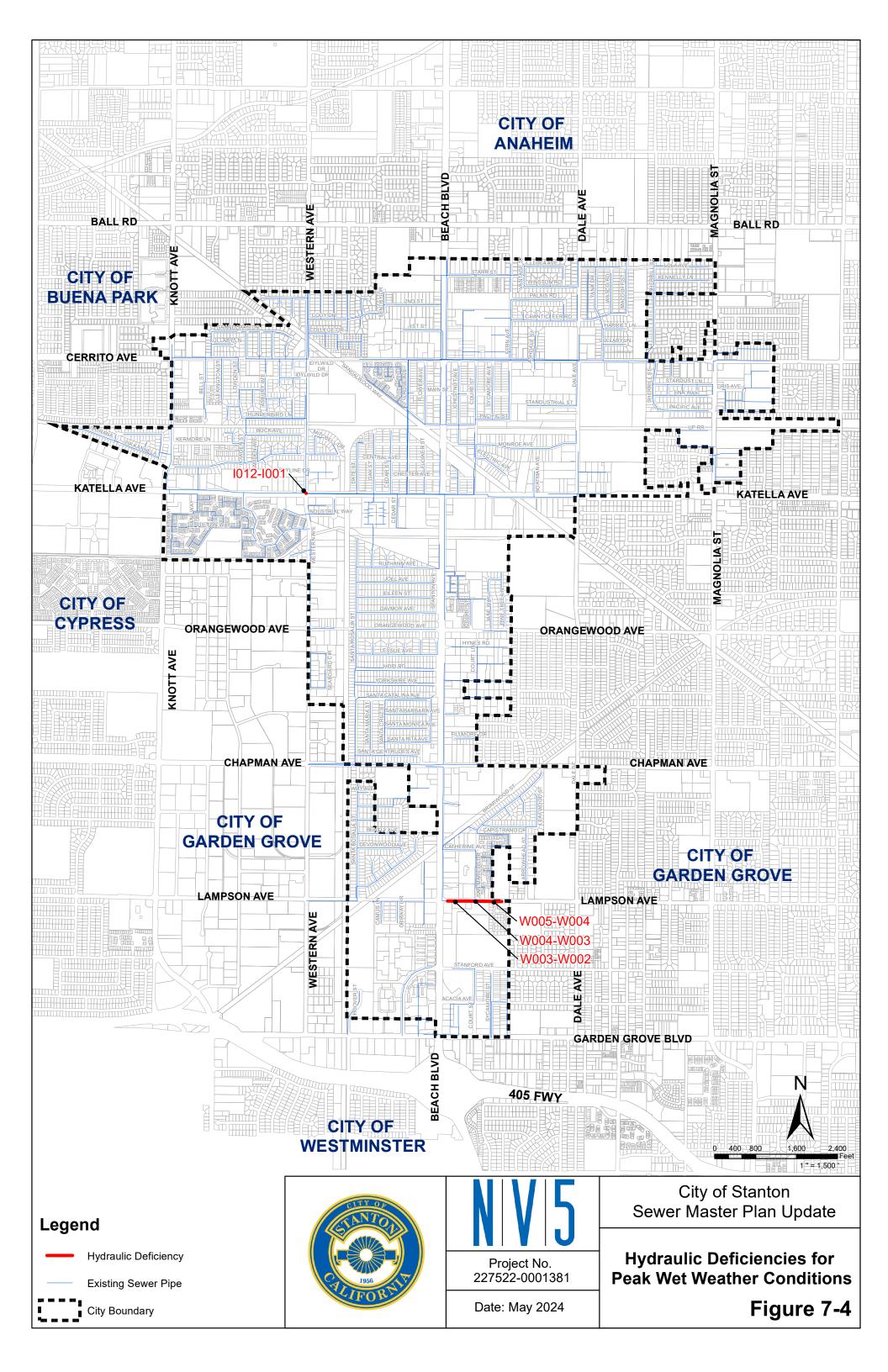
<u>Pipe I012-I001:</u> Available data indicates that this 15-inch pipe segment has a reverse slope. NV5 recommends that the City survey this pipe segment and adjacent segments to verify pipeline elevations and updating the hydraulic model.

Pipes W003-W002, W004-W003, and W005-W004:

NV5 recommends that the City conduct flow monitoring upstream and downstream of these 8-inch pipe segments, at Manholes W005 and W002, to verify this capacity deficiency for existing conditions and that the City survey all manholes to verify pipeline elevations. Future flow projections for these shared sewer segments should also be verified with the Garden Grove Sanitation District with consideration for future developments within the City of Garden Grove. Following these tasks the hydraulic model should be updated and the pipeline should be re-evaluated to determine if the pipeline is hydraulically deficient and needs to be replaced with a larger pipeline. If required, replacement costs would be shared between the city and the Garden Grove Sanitation District per the joint-use agreement.

NV5 also recommends that the City closely monitor these pipe segments to determine if there are any corresponding operations and maintenance issues with the identified capacity deficiencies.





8.0 PIPELINE CONDITION ASSESSMENT

This chapter provides a description of the pipeline condition assessment performed as part of the Master Plan Update and includes:

- Inspection and assessment criteria and procedures
- Summary of the pipeline condition assessment results

8.1 BACKGROUND

A wastewater system condition assessment provides municipalities with valuable information used to determine the funding required to repair and rehabilitate an aging collection system and to prioritize how the funds should be allocated. An assessment is used to identify the existing system conditions and defects which may contribute to potential overflows. Such conditions include root intrusion at misaligned joints or cracks, deposits or debris, I/I entering into the system through cracks in pipes or manholes or via illegal storm drain connections, which affect pipe capacity. The condition assessment of the existing collection system included CCTV inspection of approximately 47 miles of pipeline.

8.2 INSPECTION AND ASSESSMENT

Closed circuit television (CCTV) cameras offer valuable insight into the structural and maintenance condition of underground infrastructure. Video inspection of sewer pipelines is used to evaluate the existence and severity of cracks, misaligned joints, root intrusion, deposits, or debris, and potential sources of infiltration.

The video inspections were performed by National Plant Services (NPS). The CCTV inspection data was collected using the latest version of the Granite software (Granite Net) developed by CUES. The information collected was assembled and included in a comprehensive database.

Standard observations and severity ratings were documented on video inspection logs. Observations included the various locations of sewer mains with noted deficiencies. The inspection logs were independently reviewed by NV5 and each observation was assessed for its severity to assist in determining rehabilitation recommendations. The following sections describe the criteria and procedures performed during the inspection and assessment.

8.2.1 Inspection Criteria and Procedures

National Association of Sewer Service Companies (NASSCO) inspection codes and ratings were used for CCTV inspections. Implementation of the NASSCO codes provides a consistent method in which the inspections were conducted, and the observations noted.

For each pipe segment inspected, the video record and inspection log were independently reviewed as a quality check for the noted observations and respective ratings included in the database and as confirmation that the data provided for performing the condition assessment was acceptable. The video inspection log for each pipeline was analyzed and rated to indicate the overall severity of the pipeline condition using a scale of "A" through "E". Table 8-1 provides a summary of the pipeline condition severity ratings and the recommended response time to complete the recommended action.

Table 8-1 Pipeline Condition Severity Rating

Α	В	С	D	E
Good	Adequate	Moderate	Poor	Failing
Maintenance	5+ years	3 - 5 years	1 - 2 years	Immediate

The severity rating assigned to each pipe segment is based on the criteria listed in Table 8-2 to assure consistency and uniformity in the assessment process.

Table 8-2 Pipeline Condition Assessment Severity Criteria

Oh a a martia	Severity Rating							
Observation	A	В	С	D	E			
Cracks Circular Longitudinal	None	Very small hair line crack(s)	Hair line crack(s) <50% of ID in length	Cracks ≤1/8" wide or >50% of ID in length	Cracks >1/8" wide			
Multiple								
Broken Pipe	None	Connecting cracks, no displacement Connecting cracks, displacement ≤ ½"		Connecting cracks, displacement > 1/4"	Collapsed pipe, impassable			
Joints - Offset	Minimal	Up to ½ of the pipe thickness	½ to thickness of the pipe	Thickness of the pipe to 1 ½ times	> 1 ½ times the thickness of the pipe			
Joints - Separation	None	Gasket exposed	Bell exposed	Dirt exposed at top	Dirt exposed at invert			
Roots	Minimal	10% to 35% Fine roots	35% to 60% Fine/medium roots	60% to 80% Medium roots	80% to 100% Tap root(s) visible			
Grease	None	≤¹⁄₄" thick	1/4" to 1/2" thick	½" to 2" thick	>2" thick			
Debris Accumulation	Minimal	Sporadic deposits (no rocks)	≤10% of ID (no rocks)	10% to 25% of ID and/or rocks	>25% of ID or impassable			
Erosion (typical concrete pipe)	None	Rough surface	Exposed aggregate	Exposed rebar	Missing concrete			
Corrosion (metal pipe only)	None	Minimal	Light tuberculation	Moderate tuberculation	Impassable, heavy tuberculation			
Mineral Deposits	None	Minimal (possible infiltration)	≤10% ID thickness	>10% ID thickness	Impassable, heavy mineral deposits			
Infiltration	None	Dripping	Seeping	Constant stream	Gushing water			
Sag	None	Minimal (probably not perceptible)	≤25% of ID	25% to 75% of ID	>75% of ID			
Flow Capacity	Minimal 2/5 or less full		2/5 to ½ full	½ to ¾ full	3/4 to totally full			

Using the applicable observations and assigned severity rating, a preliminary recommendation for each pipeline segment was provided. Table 8-3 summarizes the preliminary recommendation criteria for each observed condition and severity rating.

Table 8-3 Preliminary Recommendation Criteria

Oh a sussetta u		Severity Rating								
Observation	Α	В	С	D	E					
Cracks										
Circular	No Action	No Action	No Action or	Point Repair or	Point Repair or					
 Longitudinal 	NO ACTION	NO ACTION	Rehabilitate	Rehabilitate	Rehabilitate					
• Multiple										
Broken Pipe	No Action	No Action	No Action, Point Repair or Rehabilitate	Point Repair or Rehabilitate	Point Repair or Rehabilitate					
Joints - Offset	No Action	No Action	No Action, Point Repair or Replace	Point Repair or Replace	Point Repair or Replace					
Roots	No Action	Root Treatment	Root Treatment or Rehabilitate	Rehabilitate	Rehabilitate or Replace					
Grease	No Action	Clean	Clean	Clean	Clean					
Debris Accumulation	No Action	Clean	Clean	Clean	Clean					
Erosion (concrete pipe)	No Action	No Action	No Action or Replace	Replace	Replace					
Mineral Deposits	No Action	Clean	Clean or Point Repair / Rehabilitate / Replace	Point Repair or Rehabilitate / Replace	Point Repair or Rehabilitate / Replace					
Infiltration	No Action	No Action	·		Point Repair or Rehabilitate					
Sag	No Action	No Action	No Action or Replace	on or Replace Replace Replace						
Flow Capacity	No Action	No Action	No Action	Clean and Evaluate Capacity	Clean and Evaluate Capacity					

8.3 PIPELINE CONDITION ASSESSMENT SUMMARY

Approximately 47 miles of sewer pipeline were inspected between August 2022 and April 2024, which is approximately 94 percent of the entire sewer system. The remaining portion of the system that was not inspected, approximately 3 miles, consists primarily of pipelines that are owned or maintained by other agencies, pipelines in private easements, and newly constructed pipelines. Table 8-4 includes a summary of the length of pipe inspected based on material.

Table 8-4 Pipelines Inspected

Material	Length (Miles)	Percentage
VCP	44.4	94.0%
PVC	0.6	1.3%
Concrete	0.3	0.6%
Lined	1.9	4.0%
Total	47.2	100.0%

Condition assessment results for each pipe segment inspected are included in Appendix 4, including the primary defect(s) identified, the assigned pipeline condition severity rating, and a preliminary recommendation. Note that the preliminary recommendations provided are for general planning purposes only and should be further evaluated during final design of any pipeline improvements.

Table 8-5 and Figure 8-1 below provide a summary of the assigned pipeline condition severity ratings based on the length of pipe inspected.

Table 8-5 Condition Assessment - Severity Ratings Summary

	Severity Ratings									
	Α	В	С	D	E	Total				
Length (Miles)	7.8	15.4	16.9	5.7	1.4	47.2				
Percent by Length	16.5%	32.6%	35.8%	12.1%	3.0%	100.0%				

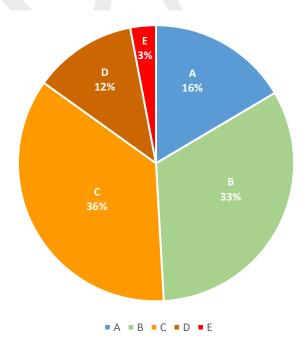


Figure 8-1 Condition Assessment – Severity Rating Summary

Table 8-6 and Figure 8-2 below provide a summary of the preliminary recommendations provided based on length of pipe inspected. Note that the length listed for point repairs is the total inspected length of all pipe segments with a point repair recommendation. The actual length of recommended point repairs will need to be determined during design.

Preliminary Recommendation	Length (Miles)	Percentage
No Action	12.8	27.1%
Clean	15.1	32.0%
Clean and CCTV	1.1	2.3%
Root Treatment	1.8	3.8%
Rehabilitate (Lining)	8.6	18.2%
Point Repair	5.4	11.4%
Replace	2.4	5.1%
Total	47.2	100%

Table 8-6 Condition Assessment - Preliminary Recommendations Summary

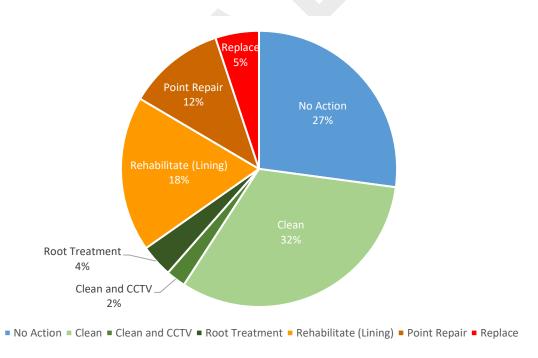
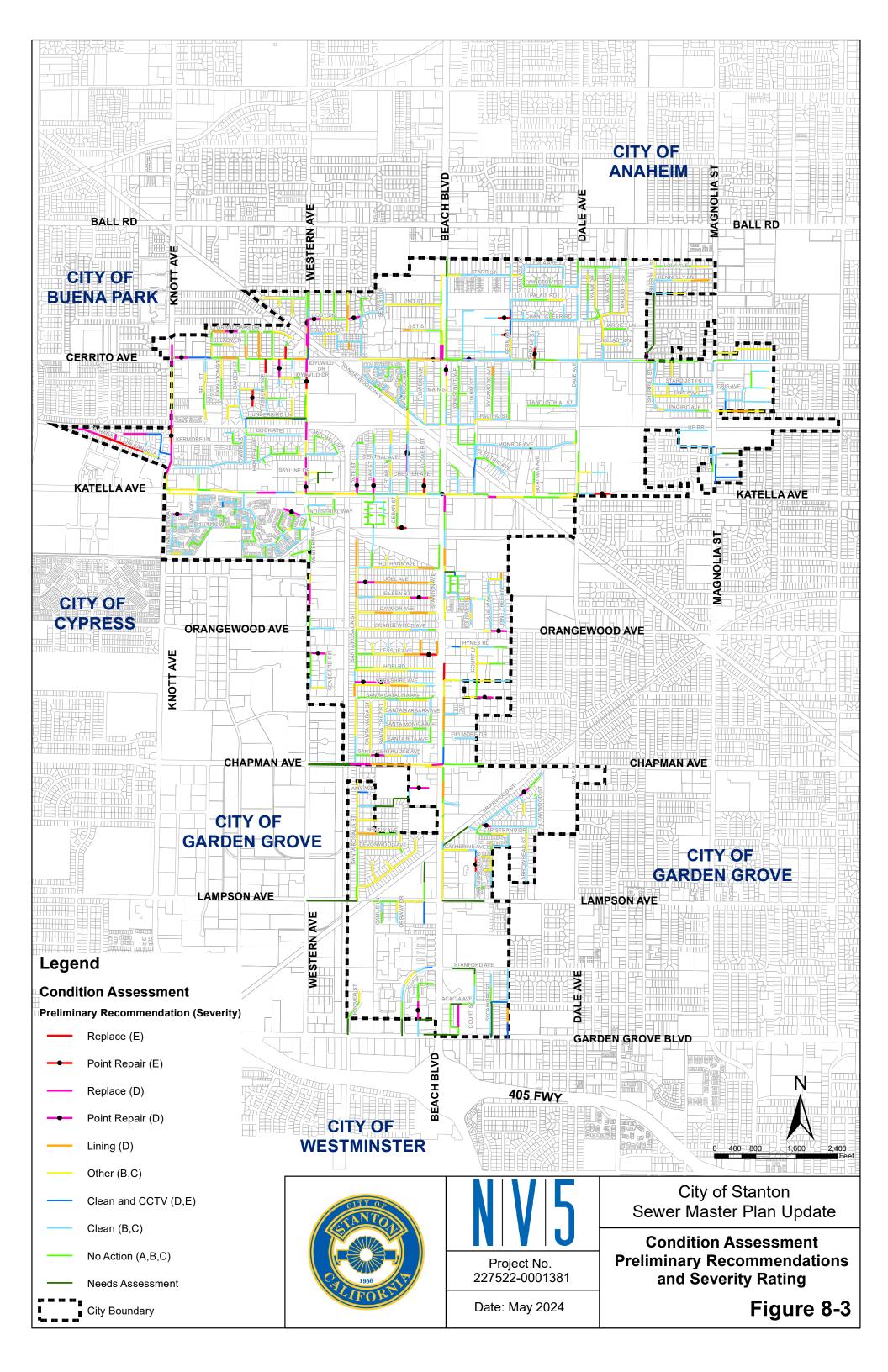


Figure 8-2 Condition Assessment – Preliminary Recommendations Summary

Based on the preliminary recommendations, approximately 38 percent of the pipelines inspected will benefit from thorough maintenance / cleaning, while approximately 35 percent require improvements including point repairs, rehabilitation, and replacement.

Figure 8-3 illustrates the condition severity rating and preliminary recommendations provided for inspected sewer pipelines throughout the sewer system.



9.0 OPERATION AND MAINTENANCE PROGRAM

The City's Public Works Department is responsible for the inspection, operation, and maintenance of the City's wastewater collection system including the access manholes and related appurtenances. The City's Operations and Maintenance (O&M) program for its wastewater collection system is administered by the City's Public Works Department which secures the contracted services to clean the collection system to ensure a well-functioning wastewater system that meets the current and future needs of the community.

9.1 BACKGROUND

The City's Public Works Department is responsible for ensuring the implementation of City and regulatory agency policies and procedures to ensure that wastewater operations are effective and economical. A well-maintained sanitary sewer system is critical to preventing community nuisances, such as odors resulting from high hydrogen sulfide gas (H₂S), preventing sewer spills for the mutual protection of surface waters and the environment, and to safeguard public health and safety that may potentially result in significant penalties. System information collected during operations and maintenance activities is provided to the Public Works Department who prioritizes the capital improvement projects.

9.2 OWNERSHIP AND MAINTENANCE

The City of Stanton and the Garden Grove Sanitation District executed a Joint Use (Cooperative) Sanitary Sewer Agreement in 2008 which defines the maintenance and operation responsibilities for sanitary sewer facilities shared by the two agencies. Per the agreement each agency is responsible for routine maintenance of shared sewers which are located within their respective jurisdictions. The agreement granted both agencies capacity rights for the shared sanitary sewers and defines cost sharing for repair or replacement of shared sewers, which is apportioned to each agency based on flows set forth in the agreement. Included in Appendix 5 is a copy of the executed Cooperative Sanitary Sewer Agreement. Figure 9-1 graphically illustrates the ownership and maintenance responsibilities between the City of Stanton and the Garden Grove Sanitation District based on the agreement. NV5 recommends that the City and the District update the agreement to reflect any system changes since 2008 and delineate maintenance responsibilities for shared sewer segments which cross jurisdictional boundaries.

9.3 SUMMARY OF OPERATION AND MAINTENANCE PROGRAM

Elements of the City's O&M Program include proactive, preventive and corrective maintenance of gravity sewers. The City is responsible for ensuring the implementation of City and regulatory agency policies and procedures to ensure that wastewater operations are effective and economical.

9.3.1 Review of Cleaning/Preventive Maintenance Program

An effective O&M Program helps to identify and prevent blockages in gravity sewers caused by structural defects or by accumulation of debris in the pipeline. Debris that can accumulate in the pipelines include fats, oil, grease, sediment, or other materials. Certain structural defects may trap debris and result in accumulated buildup of solids. Root intrusion through structural defects may result

in blockages. Thus, repair or elimination of any defects that contribute to buildup of material is evaluated as part of the rehabilitation program as defects will create maintenance challenges.

To minimize and prevent system blockages that can lead to sewer system overflows (SSOs) the City's Operations and Maintenance Program primarily includes performing regular citywide cleaning of the collection system. The City plans to develop and refine an appropriate schedule and target for cleaning its system.

9.3.1.1 Mechanical Cleaning Procedures

The City contracts outside services to conduct routine mechanical cleaning of the City's wastewater collection pipelines using a combination jet rodder/vactor truck(s). As the citywide cleaning is conducted, the date and location that at which cleaning occurred is captured. Thus, the locations and maintenance history of the City's maintained wastewater system pipes and associated appurtenances are documented.

9.3.1.2 High Frequency Maintenance Locations

The City's preventative maintenance program includes attention to locations that have been identified as High Frequency Maintenance Locations (HFMLs). The HFMLs include approximately 139 pipeline segments that have been identified as having reoccurring problems and which require more frequent maintenance and cleaning. Contracted crews clean HFMLs on a quarterly basis. Included in Appendix 6 is a summary of the HFMLs. The HFMLs within City are presented in Figure 9-2 and include several of the City's pipelines with sags and the accumulation of grease, roots and debris.

9.4 SUMMARY OF INSPECTION AND ASSESSMENT PROGRAM

Inspection, documentation, and assessment of condition of the sanitary sewer pipelines and manholes are important components for properly maintaining and operating a sewer collection system. Collectively the components are used to evaluate and identify potential maintenance issues and structural defects which can contribute to potential sanitary overflows.

CCTV cameras offer valuable insight into the structural and maintenance condition of underground infrastructure. Video inspection of sewer pipelines is used to evaluate the existence and severity of cracks, misaligned joints, accumulation of roots or silt, and potential sources of infiltration. Information obtained from routine inspections serves to:

- Identify existing or potential problems
- Provide accurate information regarding any existing or potential problems
- Isolate the location of any existing or potential problems
- Provide information regarding the severity of any existing or potential problems
- Facilitate identification of the optimal method to rectify existing or potential problems

Performing CCTV inspections of the entire system on an established schedule will allow the City to continue to maintain a comprehensive list of potential improvement projects. Consequently, recommendations for improvements based on the noted defects will assist in optimizing the expenditures for the wastewater collection system by improvement method.

It is recommended that the City consider development and implementation of an inspection program to inspect the condition of its gravity sewers on a 5-year cycle and to use the information obtained during implementation of its operations and maintenance program for identifying and prioritizing projects for the necessary improvements.

As mentioned previously, it is also recommended that the City consider development and implementation of a formal manhole inspection and assessment program to identify and prioritize manhole rehabilitations and replacements. Manholes should also be visually inspected during either maintenance and/or annual cleaning of the pipelines, information be documented, and defects noted for tracking and reporting purposes.

9.4.1 Pipeline Inspection Criteria and Documentation Procedures

The City does not currently have a formally established CCTV Inspection and Assessment Program with periodic and systematic inspection of the sanitary sewer system pipelines and manholes. The City employed CCTV technology for the inspection of system pipelines in 2009 and 2022-2024 for the preparation of master plan updates. Most recently, the information was documented using NASSCO codes and collected in digital format to facilitate record keeping, reporting, and retrieval of information in a timely manner.

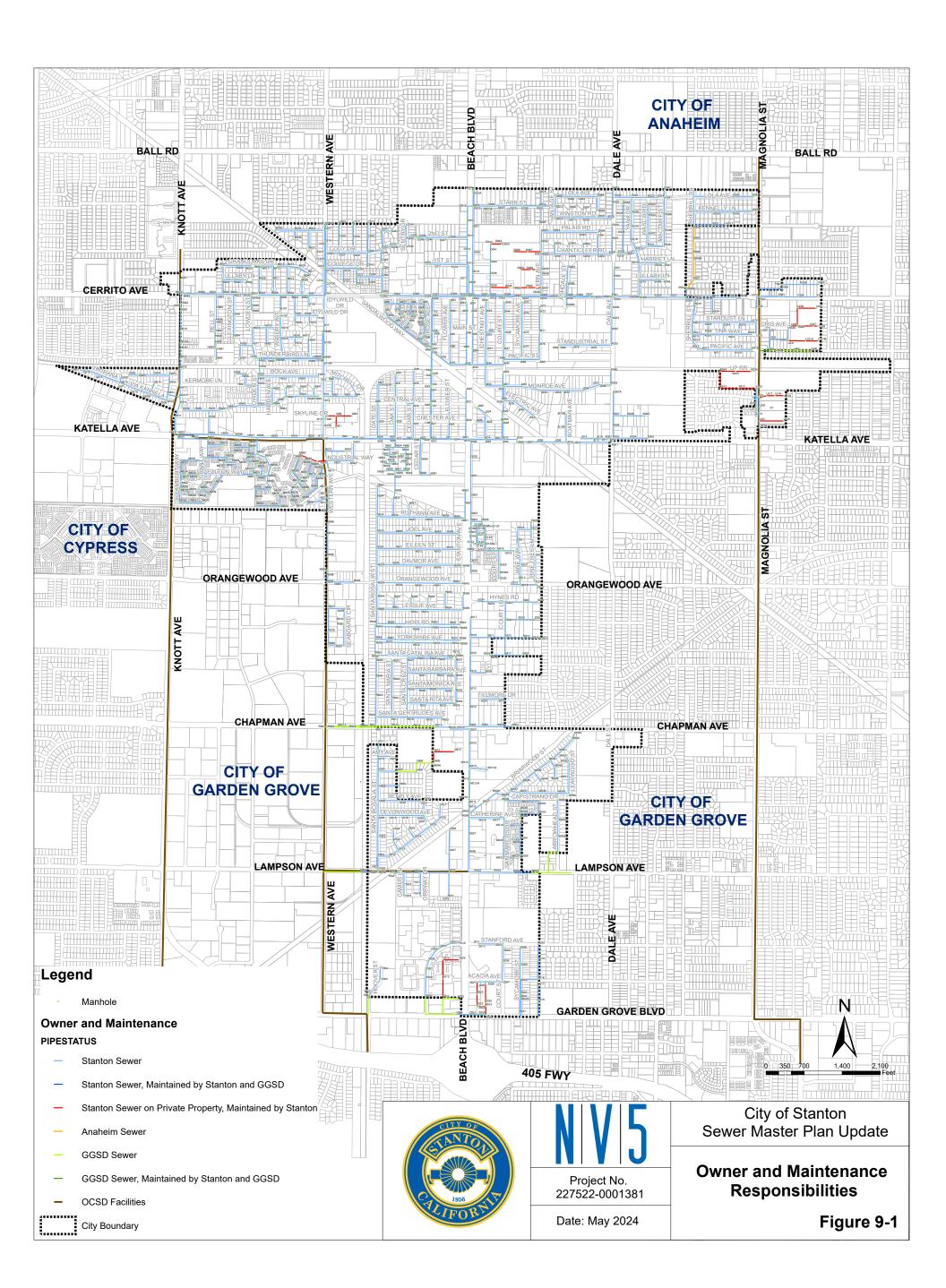
It is recommended the City develop and implement a formal and strategic inspection and assessment program that includes the sewer pipelines and manholes. Including the inspection and assessment of the system manholes will provide the City with a thorough understanding of the condition of the entire collection system and allow for development of a comprehensive plan to address the system needs.

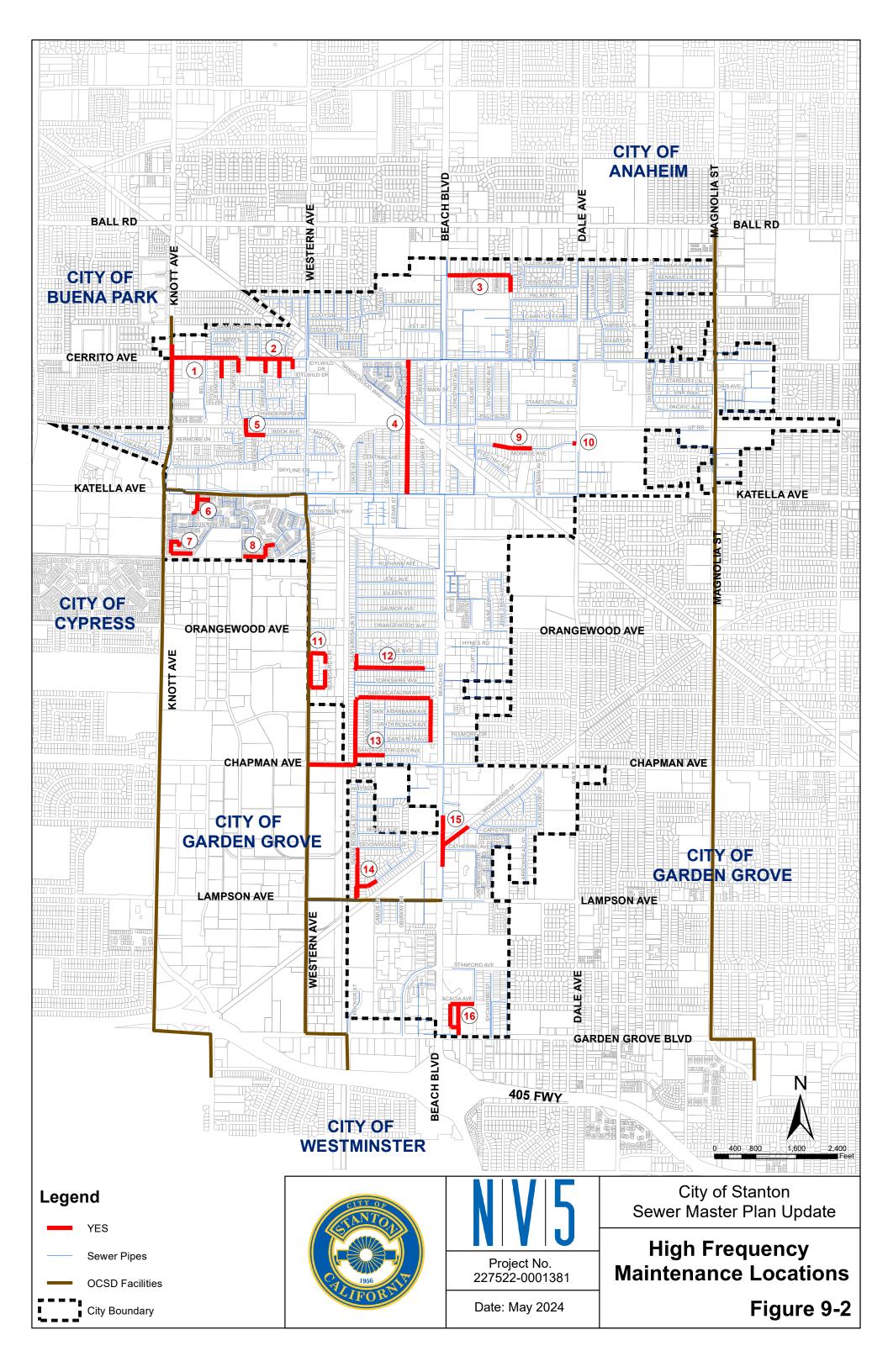
9.4.2 **Documentation of Inspection Findings**

As the City considers development of an inspection and assessment program, application of NASSCO inspection codes and ratings to document the observations noted during the inspection process will provide a consistent method in the manner in which the inspections are conducted, and the observations and ratings noted. Structural type observations are distinguished from maintenance type observations with the use of an "S" to denote a structural observation while an "M" is used to denote maintenance related observations.

The numeric severity rating (1-5) assigned to the specific structural and/or maintenance observations are also defined. A NASSCO severity rating of one (1) is minor while a severity rating of five (5) is severe. The severity ratings, as noted, are automatically assigned based on the structural and/or maintenance observation noted by the CCTV operator.

Included in Chapter 8 are the procedures and criteria employed for conducting inspection and assessment of the City's collection system for purposes of the Master Plan Update. As the collection system continues to age, it is recommended the City consider incorporating an inspection and assessment program that allows the City to regularly and consistently document the characteristics of the collection system and prioritize condition related improvements.





9.5 CONDITION ASSESSMENT OF MANHOLES

Sewer manholes were not inspected or assessed as part of this master plan update. It is recommended that the City consider development and implementation of a formal manhole inspection and assessment program to identify and prioritize manhole rehabilitations and replacements.

10.0 CAPITAL IMPROVEMENT PROGRAM (CIP)

This chapter presents a proposed 10-year Capital Improvement Program (CIP) for improving the City's wastewater collection (sewer) system based on the findings of the evaluations performed for development of the Sewer Master Plan Update and includes:

- Cost Development
- Recommended CIP projects
- Summary of CIP Costs

10.1 COST DEVELOPMENT

Addressing the needs of the City's wastewater collection system is essential to avoiding sewer overflows and for efficiently operating the collection system. Therefore, it is imperative that appropriate budgetary estimates for pipeline repair, replacement and/or rehabilitation improvements be identified to mitigate potential system deficiencies.

The final cost of a project will depend on actual labor and material costs, competitive market conditions, final project scope and complexity, implementation schedule, and other variable factors that may include investigation of alternatives and detailed utility and topography surveys. And since costs of materials and labor fluctuate over time, new estimates should be obtained at or near the time of construction of proposed facilities.

10.1.1 Unit Construction Costs

The unit construction costs developed for this study are for general master planning purposes and for guidance in project evaluation and implementation. The unit costs presented are based on representative and available data at the time of this report, and do not include costs for contingency, engineering design, construction management, or administration which are discussed in Sections 10.1.2 and 10.1.3.

10.1.1.1 Sewer Pipeline Replacement and Rehabilitation Unit Costs

Unit construction costs for sewer pipeline replacement are presented in Table 10-1. Note that for point repairs, a unit cost of \$25,000 per repair was used.

 Diameter (in)
 Unit Cost/LF

 8
 \$550

 10
 \$650

 12
 \$750

 15
 \$900

 18
 \$1,100

Table 10-1 Pipeline Replacement Unit Costs

Unit construction costs for pipeline rehabilitation are presented in Table 10-2.

Table 10-2 Rehabilitation Unit Costs

Diameter (in)	Unit Cost/LF
8	\$200
10	\$225
12	\$250
15	\$300
18	\$350

10.1.1.2 Sewer Manhole Replacement and Rehabilitation Unit Costs

Unit construction costs for sewer manhole replacement and rehabilitation are presented in Table 10-3.

Table 10-3 Manhole Unit Costs

Туре	Unit Cost/EA
Replacement	\$25,000
Rehabilitation	\$15,000

10.1.2 Construction Contingency

For each CIP project, a construction contingency of approximately 20% of the estimated construction cost was included considering that each project is conceptual, and the scope of each project may change during final design of the proposed improvements.

10.1.3 Costs for Design, Construction Management and Administration

For each CIP project, the cost for engineering design, construction management (CM), and construction administration was estimated at approximately 30% of the total estimated construction cost including contingency. However, actual costs for these services will vary depending on the scope, complexity, and schedule of each project.

10.2 CIP PROJECTS

10.2.1 Criteria for CIP Projects

Recommended CIP projects were developed based on the findings and preliminary recommendations of the sewer pipeline condition assessment discussed in Section 8 and input from City staff.

The general criteria for development of CIP projects for sewer pipelines was to first address pipeline segments rated with a failing ("E") condition severity as these segments have severe defects that require more immediate attention. Some pipeline segments rated with a poor ("D") condition severity were grouped together with severity "E" replacement segments or included as separate projects.

NV5 also recommends that all pipeline segments rated with a "D" or "E" condition severity be cleaned and inspected annually using CCTV technology until critical defects are addressed by CIP projects or

by City operations and maintenance efforts. This should include pipeline segments assigned a "Clean and CCTV" recommendation, which are not addressed by the following CIP projects.

10.2.2 Recommended CIP Projects

A brief description for each recommended CIP project is provided below. Additional details regarding each recommended sewer pipeline CIP project are included in Appendix 7, including a list of sewer pipe segments, condition assessment findings, a preliminary construction cost opinion, and an exhibit for each project.

CIP-001 - Sewer Point Repair Program (Severity E):

This project proposes 15 point repairs to address severe defects identified in 12 different sewer pipeline segments rated with an "E" condition severity and a point repair recommendation. These pipe segments are located throughout the City and include 8-inch, 10-inch, 12-inch, and 15-inch VCP pipes with broken pipes, joint offsets, large mineral deposits, and infiltration. The specific type of point repair will need to be further evaluated for each defect, but may include open trench replacement, sectional lining, chemical grouting, mechanical cleaning, or other improvements.

CIP-002, Via Kannela / Via Irana Sewer Replacements:

This project proposes replacement of approximately 1,510 feet of heavily degraded/eroded 8-inch concrete sewer pipe on Via Kannella and Via Irana with "D" and "E" condition severity ratings, including 7 pipe segments. The condition of the 8 manholes connected to these pipe segments has not been assessed, so replacement of manholes was assumed for preliminary cost planning.

CIP-003, Beach Boulevard Sewer Replacement:

This project proposes replacing a single sewer pipe segment on Beach Boulevard, S017-S016, a 335-foot long VCP pipe that has cracks and a severe sag with an "E" condition severity rating. The existing pipe diameter will need to be verified as GIS data lists the pipe diameter as 8-inch whereas CCTV data notes the pipe diameter is 10-inch. A 10-inch diameter pipe replacement was assumed for preliminary cost planning. The condition of the 2 manholes connected to this pipe segment has not been assessed, so replacement of manholes was assumed for preliminary cost planning.

CIP-004, Cerritos Avenue Sewer Replacements:

This project proposes replacing two different 8-inch sewer pipe segments that are both connected to the existing 10-inch sewer line on Cerritos Avenue, west of Western Avenue.

- Pipe B039-B002 is an 8-inch VCP gravity sewer pipe on Ramblewood Drive, north of Cerritos
 Avenue, which has a severe joint offset and numerous cracks/broken pipes with an "E" condition
 severity rating.
- Pipe H107-B005 is an 8-inch sewer pipeline in a private alley, south of Cerritos Avenue and west of Courson Drive, which crosses 4 private multi-family residential properties. GIS data indicates that this is a City owned and maintained pipeline and is a siphon which crosses a 60-inch storm drain on Cerritos Avenue. CCTV video indicates the pipe has both VCP gravity sewer segments and a siphon segment constructed with an unknown pipe material, which has large grease deposits, and a joint offset/grade break where the pipe material transitions. Considering that the

siphon segment was only partially full in the video could indicate the siphon may be defective. Pipe replacement was assumed for preliminary cost planning, but other improvement alternatives should be evaluated during design after further investigation.

<u>CIP-005, Sewer Point Repair Program (Severity D):</u>

This project proposes 38 point repairs to address moderately severe defects identified in 33 different sewer pipeline segments rated with a "D" condition severity and a point repair recommendation. These pipe segments are located throughout the City and include 8-inch, 10-inch, 12-inch, and 15-inch VCP pipes with broken pipes, joint offsets, lateral intrusions, and infiltration. The specific type of point repair will need to be further evaluated for each defect, but may include open trench replacement, sectional lining, chemical grouting, mechanical cleaning, or other improvements.

CIP-006, Sewer Pipeline Replacement and Rehabilitation Program (Severity D):

This project proposes replacing or rehabilitating the remaining sewer pipeline segments rated with a "D" condition severity and a replacement or rehabilitation recommendation. These pipe segments are located throughout the City and included 6-inch, 8-inch, 10-inch, 12-inch, and 15-inch pipes with various defects.

CIP-007, Sewer Manhole Replacement and Rehabilitation Program:

The City has approximately 1,100 sewer manholes throughout the collection system. Although this master plan update did not include a condition assessment of sewer manholes, the City plans to start systematically replacing or rehabilitating sewer manholes in the system following completion of critical pipeline replacement and rehabilitation projects. For this CIP project, it was assumed that 1 percent (%) of manholes in the system will be replaced or rehabilitated each year (approximately 11 manholes). For preliminary cost planning purposes, it was assumed that 5 manholes will be replaced, and 6 manholes will be rehabilitated each year for a duration of 5 years, beginning FY 2029-2030.

CIP-008, Lampson Avenue Sewer Replacement:

This project proposes replacing four 8-inch VCP pipe segments on Lampson Avenue, W002-0C09, W003-W002, W004-W003, and W005-W004. Three of these segments were identified as hydraulically deficient based on the hydraulic model, as described in Section 7.3. However, this capacity deficiency should be verified as recommended in Section 7.4. If the pipe segments are deficient, 8-inch segment W002-0C09 should also be replaced with the same size pipe to avoid a downstream flow restriction. A 12-inch diameter pipe replacement was assumed for preliminary cost planning but should be verified during design. The condition of the manholes connected to these pipe segments has not been assessed, so replacement of manholes was assumed for preliminary cost planning. Replacement costs for this shared sewer would be shared based on the joint-use agreement between the City and the Garden Grove Sanitation District.

10.3 SUMMARY OF CIP COSTS

Table 10-4 below provides a summary of the project costs for each CIP project. Note that these are rough order of magnitude cost opinions for preliminary planning information only and do not include inflation/escalation for future cost planning.

Table 10-4 Capital Improvement Program (CIP) Cost Summary

CIP No.	Pipe Segments	Street	Description	Construction Cost Opinion Plus Contingency	Engineering / CM / Admin	Total Cost (\$2024)
CIP-001	Various	Various	Sewer Point Repair Program (Severity E)	\$460,000	\$140,000	\$600,000
CIP-002	G010-G009, G011-G010, G012-G011, G013-G012, G014-G013, G801-G014, G007-G012	Via Kannela, Via Irana	Replace 1,509 LF of 8" concrete sewer pipes (Severity E)	\$1,240,000	\$360,000	\$1,600,000
CIP-003	S017-S016	Beach Boulevard	Replace 335 LF of 10" VCP sewer pipe (Severity E)	\$320,000	\$100,000	\$420,000
CIP-004	B039-B002, H107-B005	Cerritos Avenue	Replace 527 LF of 8" VCP sewer pipes (Severity E)	\$460,000	\$140,000	\$600,000
CIP-005	Various	Various	Sewer Point Repair Program (Severity D)	\$1,140,000	\$340,000	\$1,480,000
CIP-006	Various	Various	Sewer Pipeline Replacement and Rehabilitation Program (Severity D)	\$9,600,000	\$2,900,000	\$12,500,000
CIP-007	N/A	Various	Sewer Manhole Replacement and Rehabilitation Program	\$1,300,000	\$400,000	\$1,700,000
CIP-008	W002-0C09, W003-W002, W004-W003, W005-W004,	Lampson Avenue	Upsize 1,166 LF of 8" VCP sewer pipes (Capacity Deficiency)	\$1,200,000	\$400,000	\$1,600,000
					Total	\$20,500,000

The City plans to implement the recommended CIP projects over the next 10 years. Projected expenditures for the 10-year CIP program are included in Appendix 8. These preliminary projections were developed based on the estimated CIP costs listed herein, prioritizing CIP projects with severe condition deficiencies, and direction from City staff.

Appendix 1 - City of Stanton Planned Developments

Project Name	Developer	Address	Status	No. of Units	APNs	General Plan LU	Development Type	GPD/DU	MGD	MH#
2 single family detached units	Nop Dang Mac	10572 Lexington St	Completed	2	079-313-06	MDR	MDR	200	0.0004	H094
4 detached condominiums	James Le	8222 Starr	In plan check	5	126-282-14	NGMU	MDR	200	0.0010	D030
4 detached single family units	Sean Singh	7082 Kermore	In plan check	4	079-752-09	MDR	MDR	200	0.0008	H057
4 townhome units	An Ha	7162 Kermore	Completed	4	079-752-13	MDR	MDR	200	0.0008	H057
5 new multi-family units	Christopher Caohuynh	7131 Kermore	In plan check	5	079-751-13	MDR	MDR	200	0.0010	H057
6 townhome units	Loc Tran	7320 Katella	In Progress	6	131-641-06	HDR	HDR	200	0.0012	H030
7 single family detached condominiums	Emily Fahrenhoiz	7091 Kermore	Completed	7	079-751-03, 079-751-04		MDR	200	0.0014	H057
17 3-story attached condominium units	Huy Tran	11752 Beach	In Progress	17	131-242-04, 131-242-03	GMU, MDR	Mixed Use	200	0.0034	S015
Assemblage	KB Home	7455 Katella	Completed	36	079-371-26, 079-371-27, 079-371-09, 079-371-13, 079-371-12,079-371-15 GMU		Mixed Use	200	0.0072	1013
Bigsby	Bonanni	12200 Beach	In Progress	79	131-422-20	GMU	Mixed Use	200	0.0158	W012
Brookfield		12631-12831 Beach	Completed	208	131-682-13, 131-681-04	SGMU	Mixed Use	200	0.0416	Y012/Y024
Cloud House	Bonanni	12331-12435 Beach	In Progress	321	131-361-03, 131-361-09, 131-361-08	SGMU	Mixed Use	200	0.0642	V028
Conversion of 72 motel units into apartment units	Jamboree Housing	7161 Katella	Completed	72	079-762-26, 079-762-61	GC	Mixed Use	200	0.0144	H025
Habitat for Humanity		7922 Cerritos	Completed	6	079-331-13, 079-331-12	TOWN	Mixed Use	200	0.0012	1083
Lighthouse	KB Home	10871 Western	Completed	40	079-371-17	HDR	HDR	200	0.0080	1013
Melia		7142 Kermore	Completed	20	079-752-12, 079-752-11, 079-752-18	MDR	MDR	200	0.0040	H057
New 3,506 medical building	Scott Belair	10692 Beach	In Progress	1	126-434-11	TOWN	GC	N/A	N/A	J064
Riviera	Jamboree	11892 Beach	Completed	19	131-241-07	GMU	Mixed Use	200	0.0038	S013
SB-9 urban lot split (2 duplexes)	Henry Cao & Phat Ho	10861 Oak St	In Progress	4	079-362-01	LDR	LDR	250	0.0010	1030
ShareMyCoach	Joe Hill	10775 Beach	In Progress	1	079-341-07, 079-341-16, 079-341-08	GC/OS	GC	N/A	N/A	J022
Super King / Magnolia Plaza		10560 Magnolia	Completed	1	127-461-02, 127-461-03, 127-461-04	GMU	GC	N/A	N/A	F003
Tahiti	Jamboree	11850-11870 Beach	Completed	60	131-241-12, 131-241-21	GMU	Mixed Use	200	0.0120	S013
	Brandywine			24	126-481-15,126-481-14,126-481-13,126-481-12,126- 481-11,126-481-10	HDR	HDR	200	0.0048	K022
	Brandywine			20	126-481-09,126-481-08,126-481-07,126-481-06,126- 481-05	HDR	HDR	200	0.0040	K021
	Brandywine			16	126-481-04,126-481-03,126-481-02,126-481-01	HDR	HDR	200	0.0032	К020
Tina-Pacific	Brandywine	Tina Way & Pacific Way	Housing Element	40	126-481-16,126-481-17,126-481-18,126-481-19,126- 481-20,126-482-15,126-482-14,126-482-13,126-482- 12,126-482-11	HDR	HDR	200	0.0080	К019
	Brandywine			32	126-481-21,126-481-22,126-481-23,126-481-24,126- 482-10,126-482-09,126-482-08,126-482-07	HDR	HDR	200	0.0064	K018
	Brandywine			24	126-481-25,126-481-26,126-481-27,126-481-28,126- 482-06,126-482-05	HDR	HDR	200	0.0048	K017
	Brandywine			5	126-481-29	HDR	HDR	200	0.0010	K015
ORCO Block Site	Stanton Land LLC	8042 Katella Avenue	In Progress	159	131-101-01,131-101-15,131-101-16,131-101-18,131- 101-21	GMU	Mixed Use	200	0.0318	J015
VRV	Bonanni	12736 Beach	Completed	300	131-501-04	SGMU	Mixed Use	200	0.0600	Z012

Appendix 2 - Vacant Parcels

		Vac	ant Parcels	
APN	Parcel ID	Area (ac)	Existing Land Use	Future Land Use
079-320-14	418985	0.032	Vacant	High Density Residential
079-341-09	419708	0.101	Vacant	Low Density Residential
079-344-04	419712	0.158	Vacant	Commercial
079-344-05	419800	0.158	Vacant	Commercial
079-352-08	419449	0.158	Vacant	Low Density Residential
079-363-01	418860	0.086	Vacant	Low Density Residential
079-363-16	418850	0.072	Vacant	Low Density Residential
079-541-56	418298	0.046	Vacant	Parking Lot
079-541-57	417856	0.016	Vacant	Medium Density Redidential
126-281-18	427040	0.570	Vacant	Commercial
126-434-11	426924	0.081	Vacant	Planned Development
126-434-15	426920	0.157	Vacant	Commercial
126-481-11	428775	0.175	Vacant	Planned Development
126-481-12	428730	0.175	Vacant	Planned Development
126-481-13	428684	0.175	Vacant	Planned Development
126-481-14	429016	0.175	Vacant	Planned Development
126-481-15	428978	0.208	Vacant	Planned Development
126-481-28	428645	0.173	Vacant	Planned Development
126-481-29	428245	0.255	Vacant	Planned Development
126-482-05	428566	0.182	Vacant	Planned Development
126-482-09	428880	0.174	Vacant	Planned Development
126-482-10	428823	0.174	Vacant	Planned Development
126-482-15	428979	0.213	Vacant	Planned Development
126-531-38	804941	0.176	Vacant	Open Space
126-532-03	792434	0.183	Vacant	Industrial
126-532-14	792408	0.032	Vacant	Industrial
126-541-22	792450	0.199	Vacant	Industrial
126-541-24	792452	0.029	Vacant	Industrial
126-541-25	792476	0.626	Vacant	Commercial
126-553-06	804959	0.286	Vacant	Commercial
126-563-04	804977	0.089	Vacant	Commercial
131-041-51	438086	0.005	Vacant	Industrial
131-101-01	439014	0.414	Vacant	Industrial
131-101-16	439015	0.434	Vacant	Industrial
131-141-36	1446619	0.009	Vacant	Parking Lot
131-141-37	1446620	0.002	Vacant	Parking Lot
131-141-38	1446621	0.002	Vacant	Parking Lot

	Vacant Parcels											
APN	Parcel ID	Area (ac)	Existing Land Use Future Land Use									
131-141-39	1446622	0.001	Vacant	Parking Lot								
131-141-40	1446623	0.015	Vacant	Parking Lot								
131-211-24	801273	0.098	Vacant	High Density Residential								
131-221-42	801288	0.625	Vacant	Low Density Residential								
131-231-19	801282	0.994	Vacant	Low Density Residential								
131-592-49	1421499	0.016	Vacant	Medium Density Redidential								
131-592-50	1421500	0.016	Vacant	Medium Density Redidential								
131-601-01	438085	0.007	Vacant	Open Space								
N/A	419610	0.322	Vacant	Commercial								
N/A	419819	3.158	Vacant	Commercial								
N/A	439149	0.655	Vacant	Commercial								
N/A	804944	2.651	Vacant	Industrial								

Appendix 3 - Capacity Analysis - Model Results

Model Results - Existing Peak Dry Weather Flow (PDWF) Scenario

BOD-CODI	Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
B007-8001 B002 B003 B003 10 135.29 D0012 D0.46 D.87 D.17 C B003-8002 B003 B002 10 132.75 D0012 D0.48 D.86 D.16 C B005-8003 B004 B003 10 137.42 D.0012 D.032 D.79 D.14 C B005-8004 B005 B004 B003 10 137.42 D.0012 D.032 D.79 D.14 C B005-8004 B005 B006 B005 10 127.26 D.0012 D.012 D.021 D.70 D.12 C D.0016 D.00	ripe ib	ID	ID	(inches)	(feet)	•	(MGD)	(ft/s)	(feet)	u/D
B003-B002 B003 B002 10	B001-C001	B001				0.0012				0.22
B004-B003 B004 B003 10	B002-B001	B002		10	135.29	0.0012	0.046	0.87	0.17	0.21
B005-B004 B005 B004 10	B003-B002	B003	B002						0.16	0.20
B005-B005 B006 B007 B006 10 127.26 0.0012 0.016 0.63 0.10 0.6 0.007-B006 B007 B008 B007 8 269.55 0.0012 0.006 0.47 0.06 0.6 0.008-B007 B008 B007 8 269.59 0.0026 0.006 0.63 0.06 0.6 0.06 0.06 0.008 0.008 0.008 B009 8 8 259.91 0.0020 0.001 0.31 0.02 0.008 0.008 0.008 0.008 8 8 9.00020 0.001 0.31 0.02 0.008 0.	B004-B003	B004	B003	10	137.42	0.0012	0.032	0.79	0.14	0.17
B007-B006 B007 B008 B007 B 259.35 D.0012 D.006 D.47 D.06 C C C C C C C C C		B005	B004	10	131.33	0.0012	0.021	0.70	0.12	0.14
B008-B007 B008 B007 B 269.59 0.0026 0.006 0.63 0.06 0.08 B009-B008 B009 B008 B 259.91 0.0020 0.003 0.48 0.04 0.08 0.08 0.09 B011 B009 B B 89.19 0.0020 0.001 0.31 0.02 0.001 0.31 0.02 0.001 0.31 0.02 0.001 0.31 0.02 0.001 0.31 0.02 0.001 0.31 0.02 0.001 0.31 0.02 0.001 0.31 0.02 0.001 0.31 0.02 0.001 0.31 0.02 0.001 0.35 0.03 0.05 0.06 0.001 0.35 0.03 0.05 0.05 0.001 0	B006-B005	B006	B005	10	127.26	0.0012	0.016	0.63	0.10	0.12
B009-B008 B009 B008 B 259.91 0.0020 0.003 0.48 0.04 0.02 0.001 B010-B009 B B011-B006 B011 B006 B 270.78 0.0020 0.001 0.31 0.02 0.001 0	B007-B006	B007		10	259.35	0.0012	0.006	0.47	0.06	0.08
B011-B006 B011 B006 B B011 B006 B Z70.78 D.0020 D.001 D.31 D.02 C B011-B006 B011 B012 B011 B Z60.24 D.0020 D.003 D.50 D.05	B008-B007	B008		8	269.59	0.0026	0.006	0.63	0.06	0.08
B011-B011 B012 B011 B006 S 270.78 0.0019 0.006 0.58 0.06 C B012-B011 B012 B011 S 260.24 0.0020 0.003 0.50 0.05 0.0	B009-B008	B009	B008	8	259.91	0.0020	0.003	0.48	0.04	0.07
B012-B012 B013 B012 B B013 B B014 B B004 B B015 B014 B B015 B014 B B015 B B015 B B115 B B016 B B B015 B B115 B B015 B B115 B B115 B B115 B B B115 B B B115 B B B115 B B B B B B B B B	B010-B009	B010	B009	8	89.19	0.0020	0.001	0.31	0.02	0.03
B013-B012 B014 B004 B 004 B 200.15 0.0020 0.001 0.35 0.03 C 8018-B014 B014 B004 B 2016 B 2016 0.0020 0.001 0.71 0.08 C 8015-B014 B015 B014 B 261.26 0.0020 0.009 0.66 0.07 C 8016-B015 B016 B015 B 214.26 0.0024 0.004 0.54 0.05 C 8016-B015 B016 B015 B 214.26 0.0024 0.003 0.46 0.04 C 8018-B015 B016 B 18 198.07 0.0020 0.003 0.46 0.04 C 8018-B015 B018 B015 B 198.07 0.0020 0.003 0.46 0.04 C 8018-B015 B018 B015 B 199.07 0.0020 0.001 0.36 0.03 C 8018-B015 B019 H022 10 176.55 0.0020 0.011 1.65 0.23 C 8018-B016 B020-B045 B020 B045 B 273.36 0.0032 0.116 1.65 0.23 C 8018-B020 B021 B022 B021 B 202 B 214.17 0.0038 0.034 1.23 0.12 C 8023-B022 B021 B022 B021 B 124.17 0.0038 0.034 1.23 0.12 C 8023-B022 B024 B025 B026 B02	B011-B006	B011	B006	8	270.78	0.0019	0.006	0.58	0.06	0.09
B014-B004 B014 B004 B 270.76 0.0020 0.011 0.71 0.08 C B015-B014 B015 B014 B B015 B014 B 251.26 0.0020 0.009 0.666 0.07 C B017-B016 B017 B016 B015 B 214.26 0.0024 0.004 0.54 0.05 C B017-B016 B017 B016 B B018 B015 B 214.26 0.0020 0.003 0.46 0.04 C B018-B015 B018 B015 B 198.07 0.0020 0.0001 0.36 0.03 0.03 B018-B015 B018 B015 B 179.03 0.0020 0.001 0.36 0.03 0.03 B019-H022 B019 H022 10 176.55 0.0020 0.021 1.42 0.25 C B020-B045 B020 B045 B 273.36 0.0032 0.116 1.65 0.23 C B020-B045 B020 B021 B020 B B020 B B020 B B020 B021 B020 B021 B022 B021 B B020 B021 B020 B021 B022 B023 B024 B025 B024 B025 B026	B012-B011	B012	B011	8	260.24	0.0020	0.003	0.50	0.05	0.07
B015-B014 B015 B016 B015 B016 B015 B 214_26 0.0024 0.004 0.54 0.05 0.06 0.07 0.06 0.07 0.06 0.07 0.06 0.07 0.06 0.07 0.06 0.07 0.06 0.07 0.07 0.06 0.004 0.04 0.04 0.05 0.06 0.07 0.06 0.004 0.04 0.04 0.05 0.06 0.07 0.06 0.004 0.04 0.06 0.004 0	B013-B012	B013	B012	8	200.15	0.0020	0.001	0.35	0.03	0.04
B016-B015 B016 B017 B016 B017 B016 B B018-B015 B017-B016 B017 B016 B B018-B015 B018-B0	B014-B004	B014	B004	8	270.76	0.0020	0.011	0.71	0.08	0.12
B017-8016 B017 B016 B 198.07 0.0020 0.003 0.46 0.04 0.06 B018-8015 B018 B015 B 179.03 0.0020 0.001 0.36 0.03 0.002 0.001 0.36 0.03 0.002 0.001 0.36 0.03 0.002 0.001 0.36 0.03 0.002 0.001 0.36 0.03 0.002 0.001 0.36 0.003 0.002 0.	B015-B014	B015	B014	8	261.26	0.0020	0.009	0.66	0.07	0.11
B018-B015 B018 B015 B 179.03 0.0020 0.001 0.36 0.03 C B019-H022 B019 H022 10 176.55 0.0020 0.129 1.42 0.25 C C B020-B045 B020 B045 B 8 273.36 0.0032 0.116 1.65 0.23 C B021-B020 B021 B020 B 327.92 0.0032 0.101 1.60 0.22 C C B022-B021 B022 B021 B 220 B 124.17 0.0038 0.034 1.23 0.12 C C B022-B021 B022 B021 B 124.17 0.0038 0.034 1.23 0.12 C C B022-B022 B022 B B022 B 124.17 0.0038 0.034 1.23 0.12 C C C C C C C C C	B016-B015	B016	B015	8	214.26	0.0024	0.004	0.54	0.05	0.07
B019+H022 B019 H022 10	B017-B016	B017	B016	8	198.07	0.0020	0.003	0.46	0.04	0.06
BO20-B045 B020 B045 8 273.36 0.0032 0.116 1.65 0.23 C B021-B020 B020 8 327.92 0.0032 0.101 1.60 0.22 C B022-B021 B021 B 121.17 0.0038 0.034 1.23 0.12 C B023-B022 B023 B022 8 192.07 0.0041 0.020 1.08 0.09 C B024-B025 B024 B023 8 65.73 0.003 0.05 0.68 0.05 C B026-B026 B026 B 243.62 0.0040 0.004 0.04 0.67 0.04 C 0.04 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.05 0.04 0.07 0.04 0.07 0.04 0.07 0.04 0.07 0.04 0.07 0.04 0.07 0.06 0.04	B018-B015	B018	B015	8	179.03	0.0020	0.001	0.36	0.03	0.04
BO21-B020 BO21 BO20 8 327.92 0.0032 0.101 1.60 0.22 C BO23-B021 BO21 8 124.17 0.0034 1.23 0.12 C BO23-B022 BO23 BO22 8 192.07 0.0041 0.020 1.08 0.09 C BO24-B023 BO24 BO23 8 65.73 0.0037 0.005 0.68 0.05 C B025-B024 BO25 BO24 8 243.62 0.0040 0.004 0.67 0.04 C B026-B025 BO26 B 48.20 0.0027 0.003 0.55 0.04 C B028-B026 BO28 BO25 B 17.74 0.0034 0.03 0.56 0.04 C B028-B028 BO28 BO22 B 262.11 0.0072 0.014 1.19 0.07 0.05 B032-B028 B030 B029 B 214.83 0.0040 0.005 <td>B019-H022</td> <td>B019</td> <td>H022</td> <td>10</td> <td>176.55</td> <td>0.0020</td> <td>0.129</td> <td>1.42</td> <td>0.25</td> <td>0.30</td>	B019-H022	B019	H022	10	176.55	0.0020	0.129	1.42	0.25	0.30
BO22-B021 BO22 BO21 8 124.17 0.0038 0.034 1.23 0.12 C BO23-B023 B023 B022 8 192.07 0.0041 0.020 1.08 0.09 C B024-B023 B024 B023 8 65.73 0.0037 0.005 0.68 0.05 C B025-B024 B025 B024 8 243.62 0.0040 0.004 0.67 0.04 C B026-B025 B026 B026 8 48.20 0.0027 0.003 0.56 0.04 C B028-B022 B028 B026 B025 8 17.74 0.003 0.56 0.04 C B029-B028 B029 B028 8 262.11 0.0072 0.014 1.19 0.07 C B039-B029 B030 B029 8 214.83 0.0040 0.004 0.65 0.04 C B031-B028 B031 B028 8	B020-B045	B020	B045	8	273.36	0.0032	0.116	1.65	0.23	0.35
B023-B022 B023 B024 B023 8 192.07 0.0041 0.020 1.08 0.09 C B024-B023 B024 B023 8 65.73 0.0037 0.005 0.68 0.05 C B025-B024 B025 B024 8 243.62 0.0040 0.004 0.67 0.04 C B026-B025 B026 B026 8 48.20 0.0027 0.003 0.52 0.04 C B028-B022 B028 B025 8 17.74 0.0034 0.003 0.56 0.04 C B028-B022 B028 B022 8 262.11 0.0072 0.014 1.19 0.07 0.05 C 0.05 C 0.04 C B03-802 B030 B029 8 214.83 0.0040 0.005 0.72 0.05 C B03-802 B031 B028 8 259.05 0.0048 0.007 0.85 0.05 C B032-803	B021-B020	B021	B020	8	327.92	0.0032	0.101	1.60	0.22	0.32
B024-B023 B024 B025 B024 8 243.62 0.0040 0.004 0.67 0.04 0 B025-B024 B025 B024 8 243.62 0.0040 0.004 0.67 0.04 0 B026-B025 B026A B026 8 48.20 0.0027 0.003 0.55 0.04 0 B026-B025 B026 B025 8 17.74 0.0034 0.003 0.56 0.04 0 B028-B022 B028 8 262.11 0.0072 0.014 1.19 0.07 0 B028-B029 B029 B028 8 207.80 0.0040 0.005 0.72 0.05 0 B031-B028 B031 B029 8 214.83 0.0040 0.004 0.65 0.04 0 B031-B028 B031 8 255.69 0.0042 0.006 0.74 0.05 0 B033-B031 B032 8 249.92 0.0040 <td>B022-B021</td> <td>B022</td> <td>B021</td> <td>8</td> <td>124.17</td> <td>0.0038</td> <td>0.034</td> <td>1.23</td> <td>0.12</td> <td>0.18</td>	B022-B021	B022	B021	8	124.17	0.0038	0.034	1.23	0.12	0.18
B025-B024 B025 B026 8 243.62 0.0040 0.004 0.67 0.04 C B026A-B026 B026A B026 8 48.20 0.0027 0.003 0.56 0.04 C B028-B022 B028 B025 8 17.74 0.0034 0.003 0.56 0.04 C B028-B022 B028 B022 8 262.11 0.0072 0.014 1.19 0.07 C B028-B028 B029 B028 8 262.11 0.0072 0.014 1.19 0.07 0.05 C B030-B029 B030 B029 8 214.83 0.0040 0.005 0.55 0.04 C B031-B032 B031 B032 8 259.05 0.0042 0.006 0.74 0.05 C B034-C017 B033 B032 8 249.92 0.0040 0.003 0.60 0.04 C B035-B034 B033 B034 <td>B023-B022</td> <td>B023</td> <td>B022</td> <td>8</td> <td>192.07</td> <td>0.0041</td> <td>0.020</td> <td>1.08</td> <td>0.09</td> <td>0.13</td>	B023-B022	B023	B022	8	192.07	0.0041	0.020	1.08	0.09	0.13
B026A-B026 B026A B026 8 48.20 0.0027 0.003 0.52 0.04 C B026-B025 B026 B025 8 17.74 0.0034 0.003 0.56 0.04 C B028-B028 B028 B022 8 262.11 0.0072 0.014 1.19 0.07 C B029-B028 B029 B028 8 207.80 0.0040 0.005 0.72 0.05 C B031-B028 B031 B028 8 229.05 0.0048 0.007 0.85 0.05 C B031-B028 B031 B032 B031 8 255.69 0.0048 0.007 0.85 0.05 C B034-B031 B032 8 249.92 0.0040 0.003 0.60 0.04 0.05 C B034-C017 B034 8 249.92 0.0040 0.003 0.60 0.04 0.0 0.0 0.0 0.0 0.0 0.0	B024-B023	B024	B023	8	65.73	0.0037	0.005	0.68	0.05	0.07
B026-B025 B026 B025 8 17.74 0.0034 0.003 0.56 0.04 C B028-B022 B028 B022 8 262.11 0.0072 0.014 1.19 0.07 0 B029-B028 B029 B028 8 207.80 0.0040 0.005 0.72 0.05 0 B030-B029 B030 B029 8 214.83 0.0040 0.065 0.04 0 B031-B028 B031 B028 8 259.05 0.0048 0.007 0.85 0.05 0 B032-B031 B032 B031 8 255.69 0.0042 0.006 0.74 0.05 0 B034-C017 8 292.13 0.0023 0.015 0.81 0.09 0 B035-B034 B035 B034 8 255.96 0.0020 0.008 0.65 0.07 0 B036-B035 B036 B035 8 349.45 0.0020 0.004 <td>B025-B024</td> <td>B025</td> <td>B024</td> <td>8</td> <td>243.62</td> <td>0.0040</td> <td>0.004</td> <td>0.67</td> <td>0.04</td> <td>0.06</td>	B025-B024	B025	B024	8	243.62	0.0040	0.004	0.67	0.04	0.06
BO28-B022 B028 B022 8 262.11 0.0072 0.014 1.19 0.07 C B029-B028 B029 B028 8 207.80 0.0040 0.005 0.72 0.05 C B030-B029 B030 B029 8 214.83 0.0040 0.004 0.65 0.04 C B031-B028 B031 B028 8 255.69 0.0042 0.006 0.74 0.05 C B033-B031 B032 B031 8 255.69 0.0042 0.006 0.74 0.05 C B034-C017 B034 C017 8 292.13 0.0023 0.015 0.81 0.09 C B034-B034 B035 B034 8 255.96 0.0020 0.008 0.65 0.07 C B036-B035 B036 B035 8 349.45 0.0020 0.008 0.65 0.07 C B037-B034 B037 B034 8	B026A-B026	B026A	B026	8	48.20	0.0027	0.003	0.52	0.04	0.06
B029-B028 B029 B028 8 207.80 0.0040 0.005 0.72 0.05 C B030-B029 B030 B029 8 214.83 0.0040 0.004 0.65 0.04 C B031-B028 B031 B028 8 259.05 0.0048 0.007 0.85 0.05 C B032-B031 B032 B031 8 255.69 0.0042 0.006 0.74 0.05 C B033-B032 B033 B032 8 249.92 0.0040 0.003 0.60 0.04 C B034-C017 B034 8 255.69 0.0020 0.008 0.65 0.07 C B036-B035 B036 B035 8 349.45 0.0020 0.008 0.65 0.07 C B037-B034 B037 B034 8 355.71 0.0020 0.004 0.51 0.05 C B038-B035 B038 B035 8 166.70	B026-B025	B026	B025	8	17.74	0.0034	0.003	0.56	0.04	0.06
B030-B029 B030 B029 8 214.83 0.0040 0.065 0.04 C B031-B028 B031 B028 8 259.05 0.0048 0.007 0.85 0.05 C B032-B031 B032 B031 8 255.69 0.0042 0.006 0.74 0.05 C B033-B032 B033 B032 8 249.92 0.0040 0.003 0.60 0.04 C B034-C017 B034 C017 8 292.13 0.0020 0.008 0.65 0.07 C B035-B034 B035 B034 8 255.96 0.0020 0.008 0.65 0.07 C B036-B035 B036 B035 8 349.45 0.0020 0.004 0.51 0.05 C B037-B034 B037 B034 8 355.71 0.0027 0.006 0.63 0.05 C B039-B002 B039 B0035 8 241.67 <td>B028-B022</td> <td>B028</td> <td>B022</td> <td>8</td> <td>262.11</td> <td>0.0072</td> <td>0.014</td> <td>1.19</td> <td>0.07</td> <td>0.10</td>	B028-B022	B028	B022	8	262.11	0.0072	0.014	1.19	0.07	0.10
B031-B028 B031 B028 8 259.05 0.0048 0.007 0.85 0.05 C B032-B031 B032 B031 8 255.69 0.0042 0.006 0.74 0.05 C B033-B032 B033 B032 8 249.92 0.0040 0.003 0.60 0.04 C B034-C017 B034 8 292.13 0.0023 0.015 0.81 0.09 C B035-B034 B035 B034 8 255.96 0.0020 0.008 0.65 0.07 C B036-B035 B036 B035 8 349.45 0.0020 0.004 0.51 0.05 C B037-B034 B037 B034 8 355.71 0.0027 0.006 0.63 0.05 C B038-B035 B038 B035 8 241.67 0.0020 0.003 0.51 0.04 C B049-B029 B039 B002 8 241.67	B029-B028	B029	B028	8	207.80	0.0040	0.005	0.72	0.05	0.07
B032-B031 B032 B031 8 255.69 0.0042 0.006 0.74 0.05 0 B033-B032 B033 B032 8 249.92 0.0040 0.003 0.60 0.044 0 B034-C017 B034 C017 8 292.13 0.0023 0.015 0.81 0.09 0 B035-B034 B035 B034 8 255.96 0.0020 0.008 0.65 0.07 0 B036-B035 B036 B037 B034 8 355.71 0.0027 0.006 0.63 0.05 0 B037-B034 B037 B034 8 355.71 0.0027 0.006 0.63 0.05 0 B038-B035 B038 B035 8 166.70 0.0024 0.003 0.51 0.04 0 B039-B002 8 241.67 0.0020 0.003 0.49 0.05 0 0 0 0 0 0 0 0 <td>B030-B029</td> <td>B030</td> <td>B029</td> <td>8</td> <td>214.83</td> <td>0.0040</td> <td>0.004</td> <td>0.65</td> <td>0.04</td> <td>0.06</td>	B030-B029	B030	B029	8	214.83	0.0040	0.004	0.65	0.04	0.06
B032-B031 B032 B031 8 255.69 0.0042 0.006 0.74 0.05 0 B033-B032 B033 B032 8 249.92 0.0040 0.003 0.60 0.044 0 B034-C017 B034 C017 8 292.13 0.0023 0.015 0.81 0.09 0 B035-B034 B035 B034 8 255.96 0.0020 0.008 0.65 0.07 0 B036-B035 B036 B037 B034 8 355.71 0.0027 0.006 0.63 0.05 0 B037-B034 B037 B034 8 355.71 0.0027 0.006 0.63 0.05 0 B038-B035 B038 B035 8 166.70 0.0024 0.003 0.51 0.04 0 B039-B002 8 241.67 0.0020 0.003 0.49 0.05 0 0 0 0 0 0 0 0 <td>B031-B028</td> <td>B031</td> <td>B028</td> <td></td> <td>259.05</td> <td>0.0048</td> <td>0.007</td> <td>0.85</td> <td>0.05</td> <td>0.08</td>	B031-B028	B031	B028		259.05	0.0048	0.007	0.85	0.05	0.08
B033-B032 B033 B032 8 249.92 0.0040 0.003 0.60 0.04 0 B034-C017 B034 C017 8 292.13 0.0023 0.015 0.81 0.09 0 B035-B034 B035 B034 8 255.96 0.0020 0.008 0.65 0.07 0 B036-B035 B036 B035 8 349.45 0.0020 0.004 0.51 0.05 0 B037-B034 B037 B034 8 355.71 0.0027 0.006 0.63 0.05 0 B038-B035 B038 B035 8 166.70 0.0024 0.003 0.51 0.04 0 B039-B002 B039 B002 8 241.67 0.0020 0.003 0.49 0.05 0 B041-B019 B041 B019 10 261.62 0.0034 0.012 0.84 0.07 0 B045-B019 B045 B019 8	B032-B031	B032			255.69	0.0042	0.006		0.05	0.07
B034-C017 B034 C017 8 292.13 0.0023 0.015 0.81 0.09 C B035-B034 B035 B034 8 255.96 0.0020 0.008 0.65 0.07 C B036-B035 B036 B035 8 349.45 0.0020 0.004 0.51 0.05 C B037-B034 B037 B034 8 355.71 0.0027 0.006 0.63 0.05 C B038-B035 B038 B035 8 166.70 0.0024 0.003 0.51 0.04 C B039-B002 B039 B020 8 241.67 0.0020 0.003 0.49 0.05 C B040-B039 B040 B039 8 97.74 0.0024 0.001 0.36 0.03 C B041-B019 B041 B019 10 261.62 0.0034 0.012 0.84 0.07 C B045-B019 B045 B019 8	B033-B032	B033				0.0040		0.60	0.04	0.05
B035-B034 B035 B034 8 255.96 0.0020 0.008 0.65 0.07 0 B036-B035 B036 B035 8 349.45 0.0020 0.004 0.51 0.05 0 B037-B034 B037 B034 8 355.71 0.0027 0.006 0.63 0.05 0 B038-B035 B038 B035 8 166.70 0.0024 0.003 0.51 0.04 0 B039-B002 B039 8 241.67 0.0020 0.003 0.49 0.05 0 B040-B039 B040 B039 8 97.74 0.0024 0.001 0.36 0.03 0 B041-B019 B041 B019 10 261.62 0.0034 0.012 0.84 0.07 0 B045-B019 B045 B019 8 55.20 0.0011 0.118 1.12 0.32 0 C001-I017A C001 I017A 15 299.35 <td></td> <td></td> <td></td> <td>8</td> <td></td> <td>0.0023</td> <td></td> <td>0.81</td> <td>0.09</td> <td>0.14</td>				8		0.0023		0.81	0.09	0.14
B036-B035 B036 B035 8 349.45 0.0020 0.004 0.51 0.05 0 B037-B034 B037 B034 8 355.71 0.0027 0.006 0.63 0.05 0 B038-B035 B038 B035 8 166.70 0.0024 0.003 0.51 0.04 0 B039-B002 B039 B002 8 241.67 0.0020 0.003 0.49 0.05 0 B040-B039 B040 B039 8 97.74 0.0024 0.001 0.36 0.03 0 B041-B019 B041 B019 10 261.62 0.0034 0.012 0.84 0.07 0 B045-B019 B045 B019 8 55.20 0.0011 0.118 1.12 0.32 0 C001-I017A C001 I017A 15 299.35 0.0015 0.499 1.79 0.48 0 C003-C003 C002 C003 8						0.0020				0.11
B038-B035 B038 B035 8 166.70 0.0024 0.003 0.51 0.04 0 B039-B002 B039 B002 8 241.67 0.0020 0.003 0.49 0.05 0 B040-B039 B040 B039 8 97.74 0.0024 0.001 0.36 0.03 0 B041-B019 B041 B019 10 261.62 0.0034 0.012 0.84 0.07 0 B045-B019 B045 B019 8 55.20 0.0011 0.118 1.12 0.32 0 C001-I017A C001 I017A 15 299.35 0.0015 0.499 1.79 0.48 0 C002-C003 C002 C003 8 248.27 0.0131 0.007 1.20 0.04 0 C003-C005 C003 C005 8 352.17 0.0024 0.061 1.24 0.18 0 C004-C058 C004 I054 10 <td>B036-B035</td> <td>B036</td> <td>B035</td> <td>8</td> <td>349.45</td> <td>0.0020</td> <td>0.004</td> <td>0.51</td> <td>0.05</td> <td>0.07</td>	B036-B035	B036	B035	8	349.45	0.0020	0.004	0.51	0.05	0.07
B038-B035 B038 B035 8 166.70 0.0024 0.003 0.51 0.04 0 B039-B002 B039 B002 8 241.67 0.0020 0.003 0.49 0.05 0 B040-B039 B040 B039 8 97.74 0.0024 0.001 0.36 0.03 0 B041-B019 B041 B019 10 261.62 0.0034 0.012 0.84 0.07 0 B045-B019 B045 B019 8 55.20 0.0011 0.118 1.12 0.32 0 C001-I017A C001 I017A 15 299.35 0.0015 0.499 1.79 0.48 0 C002-C003 C002 C003 8 248.27 0.0131 0.007 1.20 0.04 0 C003-C005 C003 C005 8 352.17 0.0024 0.061 1.24 0.18 0 C004-C058 C004 I054 10 <td>B037-B034</td> <td>B037</td> <td>B034</td> <td>8</td> <td>355.71</td> <td>0.0027</td> <td>0.006</td> <td>0.63</td> <td>0.05</td> <td>0.08</td>	B037-B034	B037	B034	8	355.71	0.0027	0.006	0.63	0.05	0.08
B039-B002 B039 B002 8 241.67 0.0020 0.003 0.49 0.05 0 B040-B039 B040 B039 8 97.74 0.0024 0.001 0.36 0.03 0 B041-B019 B041 B019 10 261.62 0.0034 0.012 0.84 0.07 0 B045-B019 B045 B019 8 55.20 0.0011 0.118 1.12 0.32 0 C001-I017A C001 I017A 15 299.35 0.0015 0.499 1.79 0.48 0 C002-C003 C002 C003 8 248.27 0.0131 0.007 1.20 0.04 0 C003-C005 C003 C005 8 352.17 0.0024 0.061 1.24 0.18 0 C004-C058 C004 C058 12 10.63 0.0085 0.000 0.00 0.00 0 0 0 0 0 0 0										0.06
B041-B019 B041 B019 10 261.62 0.0034 0.012 0.84 0.07 0 B045-B019 B045 B019 8 55.20 0.0011 0.118 1.12 0.32 0 C001-I017A C001 I017A 15 299.35 0.0015 0.499 1.79 0.48 0 C002-C003 C002 C003 8 248.27 0.0131 0.007 1.20 0.04 0 C003-C005 C003 C005 8 352.17 0.0024 0.061 1.24 0.18 0 C004-C058 C004 C058 12 10.63 0.0085 0.000 0.00 0.00 0 C004-I044 C004 I044 12 338.54 0.0020 0.166 1.50 0.27 0 C005-C004 C005 C004 8 350.88 0.0024 0.061 1.24 0.18 0 C006-C004 C006 C004 12 </td <td>B039-B002</td> <td>B039</td> <td></td> <td>8</td> <td></td> <td>0.0020</td> <td>0.003</td> <td>0.49</td> <td>0.05</td> <td>0.07</td>	B039-B002	B039		8		0.0020	0.003	0.49	0.05	0.07
B041-B019 B041 B019 10 261.62 0.0034 0.012 0.84 0.07 0 B045-B019 B045 B019 8 55.20 0.0011 0.118 1.12 0.32 0 C001-I017A C001 I017A 15 299.35 0.0015 0.499 1.79 0.48 0 C002-C003 C002 C003 8 248.27 0.0131 0.007 1.20 0.04 0 C003-C005 C003 C005 8 352.17 0.0024 0.061 1.24 0.18 0 C004-C058 C004 C058 12 10.63 0.0085 0.000 0.00 0.00 0 C004-I044 C004 I044 12 338.54 0.0020 0.166 1.50 0.27 0 C005-C004 C005 C004 8 350.88 0.0024 0.061 1.24 0.18 0 C006-C004 C006 C004 12 </td <td>B040-B039</td> <td>B040</td> <td>B039</td> <td>8</td> <td>97.74</td> <td>0.0024</td> <td>0.001</td> <td>0.36</td> <td>0.03</td> <td>0.04</td>	B040-B039	B040	B039	8	97.74	0.0024	0.001	0.36	0.03	0.04
B045-B019 B045 B019 8 55.20 0.0011 0.118 1.12 0.32 0.02 C001-I017A C001 I017A 15 299.35 0.0015 0.499 1.79 0.48 0.02 C002-C003 C002 C003 8 248.27 0.0131 0.007 1.20 0.04 0.02 C003-C005 C003 C005 8 352.17 0.0024 0.061 1.24 0.18 0.00 C004-C058 C004 C058 12 10.63 0.0085 0.000 0.00 0.00 0.00 C004-I044 C004 I044 12 338.54 0.0020 0.166 1.50 0.27 0.00 C005-C004 C005 C004 8 350.88 0.0024 0.061 1.24 0.18 0.00 C006-C004 C006 C004 12 338.27 0.0040 0.096 1.63 0.17 0.00 C008-C007 I102 18			1							0.08
C002-C003 C002 C003 8 248.27 0.0131 0.007 1.20 0.04 C C003-C005 C003 C005 8 352.17 0.0024 0.061 1.24 0.18 0 C004-C058 C004 C058 12 10.63 0.0085 0.000 0.00 0.00 0 C004-I044 C004 I044 12 338.54 0.0020 0.166 1.50 0.27 0 C005-C004 C005 C004 8 350.88 0.0024 0.061 1.24 0.18 0 C006-C004 C006 C004 12 338.27 0.0040 0.096 1.63 0.17 0 C007-I102 C007 I102 18 315.96 0.0015 1.212 2.27 0.71 0 C008-C007 C008 C007 15 611.45 0.0026 1.212 2.79 0.67 0 C010-D012 C010 D012 8 <td>B045-B019</td> <td>B045</td> <td>1</td> <td></td> <td></td> <td>0.0011</td> <td>0.118</td> <td>1.12</td> <td>0.32</td> <td>0.47</td>	B045-B019	B045	1			0.0011	0.118	1.12	0.32	0.47
C002-C003 C002 C003 8 248.27 0.0131 0.007 1.20 0.04 C C003-C005 C003 C005 8 352.17 0.0024 0.061 1.24 0.18 0 C004-C058 C004 C058 12 10.63 0.0085 0.000 0.00 0.00 0 C004-I044 C004 I044 12 338.54 0.0020 0.166 1.50 0.27 0 C005-C004 C005 C004 8 350.88 0.0024 0.061 1.24 0.18 0 C006-C004 C006 C004 12 338.27 0.0040 0.096 1.63 0.17 0 C007-I102 C007 I102 18 315.96 0.0015 1.212 2.27 0.71 0 C008-C007 C008 C007 15 611.45 0.0026 1.212 2.79 0.67 0 C010-D012 C010 D012 8 <td>C001-I017A</td> <td>C001</td> <td>I017A</td> <td>15</td> <td>299.35</td> <td>0.0015</td> <td>0.499</td> <td>1.79</td> <td>0.48</td> <td>0.38</td>	C001-I017A	C001	I017A	15	299.35	0.0015	0.499	1.79	0.48	0.38
C003-C005 C003 C005 8 352.17 0.0024 0.061 1.24 0.18 0.00 C004-C058 C004 C058 12 10.63 0.0085 0.000 0.00			1						0.04	0.06
C004-C058 C004 C058 12 10.63 0.0085 0.000 0.00			1							0.27
C004-I044 C004 I044 12 338.54 0.0020 0.166 1.50 0.27 C0 C005-C004 C005 C004 8 350.88 0.0024 0.061 1.24 0.18 0 C006-C004 C006 C004 12 338.27 0.0040 0.096 1.63 0.17 0 C007-I102 C007 I102 18 315.96 0.0015 1.212 2.27 0.71 0 C008-C007 C008 C007 15 611.45 0.0026 1.212 2.79 0.67 0 C009-C008 C009 C008 15 16.65 0.0024 1.212 2.25 0.47 0 C010-D012 C010 D012 8 291.77 0.0049 0.027 1.26 0.10 0 C011-C010 C011 C010 8 299.80 0.0048 0.022 1.17 0.09 0										0.00
C005-C004 C005 C004 8 350.88 0.0024 0.061 1.24 0.18 C C006-C004 C006 C004 12 338.27 0.0040 0.096 1.63 0.17 C C007-I102 C007 I102 18 315.96 0.0015 1.212 2.27 0.71 C C008-C007 C008 C007 15 611.45 0.0026 1.212 2.79 0.67 C C009-C008 C009 C008 15 16.65 0.0024 1.212 2.25 0.47 C C010-D012 C010 D012 8 291.77 0.0049 0.027 1.26 0.10 C C011-C010 C011 C010 8 299.80 0.0048 0.022 1.17 0.09 C										0.27
C006-C004 C006 C004 12 338.27 0.0040 0.096 1.63 0.17 C0 C007-I102 C007 I102 18 315.96 0.0015 1.212 2.27 0.71 C0 C008-C007 C008 C007 15 611.45 0.0026 1.212 2.79 0.67 C0 C009-C008 C009 C008 15 16.65 0.0024 1.212 2.25 0.47 C0 C010-D012 C010 D012 8 291.77 0.0049 0.027 1.26 0.10 C0 C011-C010 C011 C010 8 299.80 0.0048 0.022 1.17 0.09 C0			1							0.27
C007-I102 C007 I102 18 315.96 0.0015 1.212 2.27 0.71 C C008-C007 C008 C007 15 611.45 0.0026 1.212 2.79 0.67 C C009-C008 C009 C008 15 16.65 0.0024 1.212 2.25 0.47 C C010-D012 C010 D012 8 291.77 0.0049 0.027 1.26 0.10 C C011-C010 C011 C010 8 299.80 0.0048 0.022 1.17 0.09 C										0.17
C008-C007 C008 C007 15 611.45 0.0026 1.212 2.79 0.67 C0 C009-C008 C009 C008 15 16.65 0.0024 1.212 2.25 0.47 C0 C010-D012 C010 D012 8 291.77 0.0049 0.027 1.26 0.10 C0 C011-C010 C011 C010 8 299.80 0.0048 0.022 1.17 0.09 C0										0.47
C009-C008 C009 C008 15 16.65 0.0024 1.212 2.25 0.47 C C010-D012 C010 D012 8 291.77 0.0049 0.027 1.26 0.10 C C011-C010 C011 C010 8 299.80 0.0048 0.022 1.17 0.09 C										0.54
C010-D012 C010 D012 8 291.77 0.0049 0.027 1.26 0.10 C C011-C010 C011 C010 8 299.80 0.0048 0.022 1.17 0.09 C										0.34
C011-C010 C011 C010 8 299.80 0.0048 0.022 1.17 0.09 C										0.37
			1							0.13
10012A 0001 C012A C001 12 230.13 0.0012 0.103 1.27 0.33 0										0.14
			+							0.33

Model Results - Existing Peak Dry Weather Flow (PDWF) Scenario

Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
ripe ib	ID	ID	(inches)	(feet)	•	(MGD)	(ft/s)	(feet)	u/D
C013A-C012A	C013A	C012A	10	274.22	0.0010	0.183	1.18	0.38	0.45
C013-C012	C013	C012	12	240.25	0.0013	0.252	1.42	0.38	0.38
C014-C013	C014	C013	12	130.42	0.0015	0.252	1.53	0.36	0.36
C015-C014	C015	C014	12	153.36	0.0015	0.252	1.51	0.36	0.36
C016-C015	C016	C015	12	185.94	0.0015	0.252	1.52	0.36	0.36
C017-C016	C017	C016	12	220.85	0.0015	0.250	1.51	0.36	0.36
C019-C013A	C019	C013A	8	328.40	0.0116	0.043	1.96	0.10	0.15
C020-C019	C020	C019	8	252.66	0.0137	0.005	1.05	0.03	0.05
C021-C019	C021	C019	8	240.65	0.0040	0.028	1.19	0.11	0.16
C022-C021	C022	C021	8	151.67	0.0039	0.025	1.13	0.10	0.15
C023-C022	C023	C022	8	164.99	0.0089	0.004	0.85	0.03	0.05
C024-C022	C024	C022	8	227.08	0.0040	0.019	1.05	0.09	0.13
C026-C013A	C026	C013A	12	285.83	0.0011	0.140	1.13	0.29	0.29
C027-C026	C027	C026	8	244.16	0.0043	0.134	1.92	0.23	0.35
C028-C027	C028	C027	8	262.35	0.0040	0.120	1.80	0.22	0.34
C029-C028	C029	C028	8	263.41	0.0040	0.096	1.69	0.20	0.30
C030-C029	C030	C029	8	257.33	0.0035	0.052	1.35	0.15	0.23
C031-C030	C031	C030	8	43.34	0.1324	0.048	4.76	0.06	0.09
C032-C031	C032	C031	8	143.13	0.0037	0.042	1.30	0.13	0.20
C033-C032	C033	C032	8	109.37	0.0038	0.041	1.30	0.13	0.20
C034-C033	C034	C033	8	172.49	0.0035	0.040	1.25	0.13	0.20
C035-C034	C035	C034	8	166.57	0.0036	0.038	1.25	0.13	0.19
C036-C035	C036	C035	8	237.82	0.0037	0.031	1.18	0.12	0.17
C037-C026	C037	C026	10	210.25	0.0017	0.006	0.53	0.06	0.07
C038-C027	C038	C027	8	268.21	0.0035	0.013	0.90	0.08	0.11
C039-C028	C039	C028	8	265.19	0.0036	0.023	1.07	0.10	0.15
C040-C029	C040	C029	8	271.91	0.0027	0.041	1.16	0.14	0.21
C041-C031	C041	C031	8	329.44	0.0056	0.007	0.86	0.05	0.07
C042-C041	C042	C041	8	149.57	0.0067	0.003	0.73	0.03	0.05
C043-C029	C043	C029	8	251.52	0.0084	0.002	0.73	0.03	0.04
C044-C030	C044	C030	8	211.72	0.0100	0.003	0.86	0.03	0.05
C045-C035	C045	C035	8	204.04	0.0064	0.005	0.85	0.04	0.07
C046-C047	C046	C047	8	308.01	0.0015	0.021	0.77	0.12	0.18
C047-C048	C047	C048	8	39.28	0.0214	0.032	2.21	0.08	0.11
C048-D014	C048	D014	8	348.69	0.0024	0.032	1.03	0.13	0.19
C049-C045	C049	C045	8	40.09	0.0055	0.004	0.74	0.04	0.06
C051-C011	C051	C011	8	156.72	0.0047	0.008	0.85		0.08
C052-C024	C052	C024	8	241.48	0.0039	0.011	0.88	0.07	0.10
C053-C052	C053	C052	8	295.90	0.0072	0.006	0.91	0.04	0.07
C054-C052	C054	C052	8	141.95	0.0039	0.002	0.54	0.03	0.05
C055-C024	C055	C024	8	139.43	0.0040	0.004	0.67	0.04	0.07
C056-C046	C056	C046	8	184.19	0.0005	0.007	0.37	0.09	0.14
C057-I051	C057	1051	12	314.01	0.0023	0.002	0.44	0.03	0.03
C058-C057	C058	C057	12	8.29	0.0084	0.000	0.00		0.00
C800-C017	C800	C017	12	113.47	0.0015	0.234	1.48	0.35	0.35
C806-C037	C806	C037	8	324.10	0.0013	0.005	0.47	0.06	0.09
C809-C038	C809	C038	8	265.63	0.0013	0.010	0.47	0.07	0.10
C812-C039	C812	C039	8	267.35	0.0037	0.010	1.04	0.07	0.10
C812-C039	C813	C040	8	263.35	0.0030	0.020	1.15	0.03	0.14
D001-C006	D001	C040	12	304.59	0.0029	0.038	1.15	0.14	0.20
D001-C006 D002-D090	D001	D090	10	83.50	0.0040	0.000	0.00	0.17	0.00
D003-D002	D003	D002	10	254.66	0.0020	0.000	0.00	0.00	0.00
D004-D091	D004	D091	10	260.32	0.0022	0.141	1.49	0.26	0.31
D005-D004	D005	D004	10	330.67	0.0021	0.141	1.48	0.26	0.32
D006-D005	D006	D005	10	342.70	0.0020	0.141	1.44	0.27	0.32
D007-D006	D007	D006	10	329.85	0.0020	0.015	0.74	0.09	0.10

Model Results - Existing Peak Dry Weather Flow (PDWF) Scenario

	Fuere		Planatar		veather 110			Water Dauth	
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
D008-D007	D008	D007	10	141.22	0.0019	0.013	0.71	0.08	0.10
D009-D008	D009	D008	10	183.07	0.0021	0.002	0.43	0.04	0.04
D010-D009	D010	D009	10	332.49	0.0020	0.002	0.43	0.04	0.04
D011-D001	D011	D001	10	291.10	0.0025	0.009	0.69	0.07	0.08
D012-D011	D012	D011	10	286.24	0.0025	0.000	0.00	0.00	0.00
D012-D098	D012	D098	10	293.36	0.0036	0.079	1.50	0.17	0.21
D013-D012	D013	D012	10	248.54	0.0026	0.051	1.18	0.15	0.18
D014-D013	D014	D013	10	247.66	0.0025	0.049	1.15	0.15	0.18
D015-D014	D015	D014	10	287.62	0.0025	0.013	0.78	0.08	0.10
D016-D015	D016	D015	10	291.68	0.0025	0.010	0.72	0.07	0.08
D018-D031	D018	D031	15	404.98	0.0011	0.682	1.76	0.61	0.49
D020-D018	D020	D018	15	395.03	0.0020	0.676	2.18	0.52	0.41
D021-D020	D021	D020	15	434.75	0.0018	0.675	2.10	0.53	0.42
D022A-D022	D021	D020	12	297.71	0.0013	0.574	3.26	0.38	0.42
D022A-D022	D022A	D022	15	388.37	0.0007	0.667	2.21	0.51	0.40
	D022	D021	8	107.86	0.0021	0.007	0.80	0.05	0.40
D023-D016 D024-D023	D023	D016	10	325.46	0.0043	0.007	0.58	0.03	0.08
-	ł								
D025-D022	D025	D022	8	24.54	0.1663	0.090	6.22	0.08	0.12
D025-D023	D025	D023	8	12.47	0.0024	0.000	0.00	0.00	0.00
D026-D025	D026	D025	8	255.56	0.0026	0.090	1.43	0.22	0.32
D027A-D026	D027A	D026	8	79.62	0.0069	0.087	2.01	0.16	0.25
D027-D027A	D027	D027A	8	169.81	0.0032	0.087	1.52	0.20	0.30
D028-D027	D028	D027	8	218.28	0.0041	0.075	1.60	0.17	0.26
D029-D028	D029	D028	8	153.07	0.0018	0.066	1.15	0.20	0.30
D030-D029	D030	D029	8	273.60	0.0024	0.060	1.24	0.18	0.27
D031-C009	D031	C009	15	118.99	0.0075	1.212	4.11	0.50	0.40
D032-D031	D032	D031	15	325.61	0.0020	0.528	2.04	0.45	0.36
D033-D032	D033	D032	12	248.97	0.0020	0.332	1.82	0.39	0.39
D034-D033	D034	D033	12	340.84	0.0020	0.332	1.81	0.39	0.39
D035-D034	D035	D034	12	331.40	0.0021	0.332	1.83	0.39	0.39
D036-D035	D036	D035	12	478.18	0.0020	0.326	1.81	0.39	0.39
D037-D036	D037	D036	12	427.81	0.0020	0.324	1.80	0.38	0.38
D038-D032	D038	D032	8	150.39	0.0091	0.054	1.92	0.12	0.18
D039-D038	D039	D038	8	223.98	0.0040	0.047	1.39	0.14	0.21
D040-D039	D040	D039	8	217.89	0.0017	0.037	0.95	0.15	0.23
D041-D040	D041	D040	8	217.47	0.0032	0.031	1.13	0.12	0.18
D042-D041	D042	D041	8	140.39	0.0034	0.027	1.11	0.11	0.16
D043-D042	D043	D042	8	206.59	0.0039	0.027	1.16	0.11	0.16
D044-D043	D044	D043	8	24.37	0.0189	0.015	1.69	0.05	0.08
D045-D038	D045	D038	6	342.74	0.0199	0.006	1.38	0.04	0.08
D046-D006	D046	D006	8	101.71	0.0286	0.126	3.70	0.14	0.21
D047-D046	D047	D046	8	59.27	0.0034	0.126	1.72	0.24	0.36
D048-D047	D048	D047	8	274.19	0.0032	0.096	1.56	0.21	0.32
D049-D048	D049	D048	8	59.50	0.0032	0.089	1.54	0.20	0.30
D050-D049	D050	D049	8	290.24	0.0032	0.078	1.48	0.19	0.28
D051-D050	D051	D050	8	37.51	0.0032	0.056	1.35	0.16	0.24
D052-D051	D052	D051	8	166.67	0.0031	0.034	1.15	0.13	0.19
D053-D052	D053	D052	8	195.64	0.0041	0.033	1.25	0.12	0.17
D054-D053	D054	D053	8	346.91	0.0032	0.011	0.84	0.07	0.11
D055-D054	D055	D054	8	349.45	0.0033	0.007	0.73	0.06	0.09
D056-D055	D056	D055	8	353.38	0.0031	0.004	0.59	0.04	0.07
D057-D050	D057	D050	8	252.07	0.0024	0.020	0.90	0.10	0.16
D058-D057	D058	D057	8	263.26	0.0024	0.018	0.86	0.10	0.15
D059-D058	D059	D058	8	263.11	0.0024	0.013	0.79	0.08	0.13
D060-D059	D060	D059	8	263.54	0.0024	0.009	0.70	0.07	0.10
D061-D060	D061	D060	8	309.54	0.0032	0.003	0.57	0.04	0.06

Model Results - Existing Peak Dry Weather Flow (PDWF) Scenario

Dine ID	From	То	Diameter	Length		Flow	Velocity	Water Depth	4/0
Pipe ID	ID	ID	(inches)	(feet)	Slope	(MGD)	(ft/s)	(feet)	d/D
D062-D047	D062	D047	8	239.89	0.0033	0.027	1.10	0.11	0.17
D063-D062	D063	D062	8	259.25	0.0031	0.011	0.83	0.07	0.11
D064-D049	D064	D049	8	177.14	0.0031	0.012	0.84	0.07	0.11
D065-D064	D065	D064	8	198.08	0.0032	0.007	0.74	0.06	0.09
D067-D051	D067	D051	8	251.85	0.0031	0.022	1.02	0.10	0.15
D068-D067	D068	D067	8	255.94	0.0032	0.022	1.02	0.10	0.15
D069-D070	D069	D070	8	269.63	0.0020	0.013	0.73	0.09	0.13
D070-D071	D070	D071	8	254.91	0.0020	0.017	0.80	0.10	0.15
D071-D072	D071	D072	8	257.29	0.0020	0.019	0.84	0.11	0.16
D072-D073	D072	D073	8	209.73	0.0020	0.023	0.88	0.12	0.17
D073-D074	D073	D074	8	264.21	0.0020	0.036	1.00	0.15	0.22
D074-D030	D074	D030	8	81.80	0.0006	0.051	0.72	0.23	0.35
D075-D074	D075	D074	8	228.15	0.0024	0.011	0.75	0.08	0.12
D081-D073	D081	D073	8	184.78	0.0025	0.013	0.81	0.08	0.13
D082-D081	D082	D081	8	255.40	0.0020	0.011	0.72	0.08	0.12
D083-D082	D083	D082	8	256.66	0.0020	0.009	0.65	0.07	0.11
D084-D083	D084	D083	8	256.91	0.0036	0.006	0.73	0.05	0.08
D085-D084	D085	D084	8	250.72	0.0024	0.003	0.49	0.04	0.06
D086-D008	D086	D008	8	246.07	0.0040	0.009	0.86	0.06	0.10
D086-D008A	D008A	D008	8	185.17	0.0231	0.001	0.87	0.02	0.03
D087-D086	D087	D086	8	305.42	0.0040	0.007	0.77	0.05	0.08
D090-D001	D090	D001	8	17.57	0.0023	0.079	1.31	0.21	0.31
D091-D003	D091	D003	10	69.11	0.0007	0.000	0.00	0.00	0.00
D091-D032	D091	D032	10	8.94	0.0022	0.141	1.51	0.26	0.31
D092-D074	D092	D074	8	334.36	0.0024	0.003	0.52	0.04	0.07
D093-D059	D093	D059	8	158.00	0.0032	0.003	0.55	0.04	0.06
D094-D058	D094	D058	8	158.90	0.0032	0.003	0.55	0.04	0.06
D095-D057	D095	D057	8	159.26	0.0032	0.003	0.55	0.04	0.06
D096-D071	D096	D071	8	158.64	0.0183	0.003	0.98	0.02	0.04
D097-D070	D097	D070	8	155.79	0.0115	0.003	0.84	0.03	0.04
D098-D090	D098	D090	10	301.60	0.0022	0.079	1.27	0.19	0.23
E001-D010	E001	D010	10	316.10	0.0021	0.000	0.00	0.00	0.00
E001-E003	E001	E003	10	10.42	0.1344	0.036	4.25	0.05	0.06
E002-E001	E002	E001	8	39.33	0.0036	0.015	0.94	0.08	0.12
E003-D037	E003	D037	12	409.94	0.0021	0.315	1.81	0.38	0.38
E005A-E003	E005A	E003	12	507.10	0.0041	0.269	2.21	0.29	0.29
E005-E005A	E005	E005A	8	17.20	0.0279	0.196	4.17	0.17	0.26
E006-E005	E006	E005	8	286.15	0.0024	0.193	1.71	0.33	0.50
E007-E006	E007	E006	8	286.09	0.0024	0.179	1.67	0.32	0.48
E008-E007	E008	E007	8	283.56	0.0021	0.179	1.58	0.33	0.50
E009-E008	E009	E008	8	17.82	0.0067	0.073	1.89		0.23
E010-E009	E010	E009	8	168.63	0.0018	0.073	1.18		0.32
E011-E010	E011	E010	8	15.83	0.0030	0.022	1.00		0.15
E012-E011	E012	E011	8	317.97	0.0024	0.022	0.93	0.11	0.16
E013-E012	E013	E012	8	309.59	0.0032	0.013	0.88	0.08	0.12
E014-E013	E014	E013	8	202.26	0.0193	0.005	1.19	0.03	0.05
E015-E005A	E015	E005A	8	305.23	0.0082	0.068	1.98	0.14	0.21
E016-E015	E016	E015	8	306.48	0.0025	0.061	1.26	0.18	0.27
E017-E016	E017	E016	8	241.83	0.0022	0.052	1.15	0.17	0.25
E018-E017	E018	E017	8	192.34	0.0024	0.012	0.77	0.08	0.12
E019-E018	E019	E018	8	271.24	0.0024	0.010	0.74	0.08	0.11
E020-E019	E020	E019	8	269.46	0.0024	0.009	0.71	0.07	0.11
E021-E020	E021	E020	8	258.84	0.0029	0.007	0.71	0.06	0.09
E022-E021	E022	E021	8	309.40	0.0024	0.003	0.49	0.04	0.06
E023-E021	E023	E021	8	298.27	0.0024	0.003	0.51	0.04	0.06
E024-E023	E024	E023	8	175.78	0.0024	0.001	0.38	0.03	0.04

Model Results - Existing Peak Dry Weather Flow (PDWF) Scenario

	_		el Results - Existi		veather Fid				
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
E026-D060	E026	D060	8	263.25	0.0024	0.004	0.56	0.05	0.07
E027-E026	E027	E026	8	255.02	0.0024	0.003	0.50	0.04	0.06
E028-E027	E028	E027	8	248.27	0.0024	0.001	0.41	0.03	0.04
E029-D069	E029	D069	8	273.09	0.0023	0.011	0.73	0.08	0.11
E030-E029	E030	E029	8	265.12	0.0028	0.009	0.74	0.07	0.10
E031-E017	E031	E017	8	181.74	0.0037	0.013	0.92	0.08	0.11
E032-E031	E032	E031	8	68.05	0.0035	0.012	0.87	0.07	0.11
E033-E032	E033	E032	8	98.89	0.0023	0.001	0.38	0.03	0.04
E034-E032	E034	E032	8	354.07	0.0024	0.010	0.73	0.08	0.11
E035-E034	E035	E034	8	345.39	0.0024	0.008	0.68	0.06	0.10
E036-E035	E036	E035	8	202.77	0.0024	0.003	0.51	0.04	0.06
E037-E017	E037	E017	8	227.30	0.0023	0.026	0.96	0.12	0.18
E038-E037	E038	E037	8	299.86	0.0024	0.014	0.81	0.09	0.13
E039-E038	E039	E038	8	299.65	0.0024	0.014	0.75	0.09	0.13
E040-E039	E040	E039	8	299.48	0.0024	0.011	0.73	0.08	0.12
	E041	E040	8	303.30	0.0021	0.008	0.58	0.07	
E041-E040 E042-E041	E041	E041	8	139.42	0.0027	0.004	0.38	0.03	0.07
	1						1.03		
E043-E037	E043	E037	8	230.96	0.0076	0.008		0.05	0.08
E044-E043	E044	E043	8	349.56	0.0024	0.004	0.55	0.05	0.07
E045-E044	E045	E044	8	203.86	0.0024	0.001	0.34	0.02	0.03
E046-E016	E046	E016	8	347.94	0.0024	0.007	0.65	0.06	0.09
E047-E046	E047	E046	8	111.30	0.0023	0.003	0.52	0.04	0.07
E048-E015	E048	E015	8	343.93	0.0102	0.007	1.08	0.04	0.07
E049-E048	E049	E048	8	105.88	0.0025	0.003	0.52	0.04	0.06
E050-E002	E050	E002	8	350.45	0.0034	0.015	0.93	0.08	0.12
E051-E050	E051	E050	8	151.23	0.0040	0.011	0.90	0.07	0.10
E052-E008	E052	E008	8	168.78	0.0010	0.106	1.06	0.30	0.46
E054-E810	E054	E810	8	258.33	0.0020	0.029	0.94	0.13	0.20
E055-E054	E055	E054	8	363.76	0.0024	0.013	0.79	0.08	0.13
E056-E055	E056	E055	8	359.81	0.0024	0.010	0.74	0.07	0.11
E057-E056	E057	E056	8	363.34	0.0024	0.006	0.62	0.06	0.09
E058-E054	E058	E054	8	268.53	0.0020	0.014	0.76	0.09	0.14
E059-E058	E059	E058	8	360.76	0.0020	0.011	0.70	0.08	0.12
E060-E059	E060	E059	8	360.38	0.0020	0.009	0.65	0.07	0.11
E061-E060	E061	E060	8	364.40	0.0020	0.004	0.53	0.05	0.08
E801-E030	E801	E030	8	267.27	0.0020	0.008	0.63	0.07	0.10
E806-E052	E806	E052	8	24.49	0.0010		0.95	0.25	0.38
E807-E806	E807	E806	8	187.08	0.0008	0.074	0.88	0.27	0.40
E808A-E807	E808A	E807	8	358.79	0.0011	0.074	0.98	0.25	0.37
E808-E808A	E808	E808A	8	131.23	0.0010	0.074	0.97	0.25	0.37
E809-E808	E809	E808	8	255.48	0.0011	0.060	0.94	0.22	0.33
E810-E809	E810	E809	8	261.87	0.0011	0.033	0.78	0.16	0.24
E811-E810	E811	E810	8	348.96	0.0024	0.004	0.55	0.05	0.07
E812-E811	E812	E811	8	255.53	0.0024	0.002	0.46	0.04	0.06
E833-E058	E833	E058	8	119.97	0.0021	0.001	0.35	0.03	0.04
F002-F001	F002	F001	21	8.05	0.2473	0.020	3.89	0.03	0.02
F003-F002	F003	F002	15	349.22	0.0031	0.020	0.89	0.08	0.07
F004-F003	F004	F003	15	357.41	0.0047	0.005	0.69	0.04	0.03
F005-F004	F005	F004	15	351.22	0.0047	0.005	0.69	0.04	0.03
F006-F800	F006	F800	8	418.39	0.0050	0.022	1.19	0.09	0.14
F007-F006	F007	F006	8	83.80	0.0075	0.022	1.38	0.08	0.12
F008-F007	F008	F007	8	335.84	0.0052	0.012	1.00	0.07	0.10
F009-F008	F009	F008	8	328.78	0.0015	0.005	0.50	0.06	0.09
F011-F001	F011	F001	8	46.69	0.0291	0.012	1.82	0.04	0.07
G001-G001A	G001	G001A	8	216.66	0.0027	0.032	1.08	0.13	0.19
G002-G001	G002	G001	8	191.60	0.0020	0.011	0.70	0.08	0.12

Model Results - Existing Peak Dry Weather Flow (PDWF) Scenario

Direct ID	From	То	Diameter	Length		Flow	Velocity	Water Depth	4/5
Pipe ID	ID	ID	(inches)	(feet)	Slope	(MGD)	(ft/s)	(feet)	d/D
G003-G002	G003	G002	8	164.47	0.0020	0.008	0.64	0.07	0.11
G004-G003	G004	G003	8	281.87	0.0020	0.005	0.55	0.05	0.08
G005-G004	G005	G004	8	298.34	0.0020	0.005	0.55	0.05	0.08
G006-G005	G006	G005	8	169.64	0.0020	0.001	0.38	0.03	0.05
G007-G012	G007	G012	8	134.80	0.0040	0.001	0.46	0.02	0.04
G008-G001	G008	G001	8	106.31	0.0029	0.021	0.97	0.10	0.15
G009-G008	G009	G008	8	321.87	0.0023	0.017	0.84	0.10	0.15
G010-G009	G010	G009	8	245.00	0.0020	0.015	0.78	0.09	0.14
G011-G010	G011	G010	8	261.41	0.0020	0.012	0.71	0.08	0.13
G012-G011	G012	G011	8	88.58	0.0019	0.010	0.66	0.08	0.11
G013-G012	G013	G012	8	327.73	0.0020	0.008	0.65	0.07	0.11
G014-G013	G014	G013	8	328.54	0.0020	0.005	0.56	0.06	0.08
G015-G009	G015	G009	8	196.50	0.0039	0.002	0.54	0.03	0.05
G016-G008	G016	G008	8	33.09	0.0181	0.001	0.72	0.02	0.02
G801-G014	G801	G014	8	121.87	0.0021	0.002	0.41	0.03	0.05
H010-H002	H010	H002	12	11.95	0.1163	0.381	8.01	0.15	0.15
H011-H010	H011	H010	10	298.95	0.0020	0.171	1.52	0.30	0.36
H013-H011	H013	H011	10	285.32	0.0019	0.167	1.49	0.30	0.36
H015-H013	H015	H013	10	288.22	0.0016	0.165	1.38	0.31	0.37
H016-H015	H016	H015	10	342.70	0.0018	0.162	1.45	0.30	0.35
H017-H016	H017	H016	10	189.85	0.0020	0.162	1.49	0.29	0.35
H018-H017	H018	H017	10	163.53	0.0020	0.153	1.49	0.28	0.33
H019A-H018	H019A	H018	10	105.19	0.0021	0.142	1.48	0.27	0.32
H019-H019A	H019	H019A	10	244.75	0.0020	0.142	1.46	0.27	0.32
H020-H019	H020	H019	10	349.29	0.0020	0.142	1.45	0.27	0.32
H021-H020	H021	H020	10	75.24	0.0021	0.142	1.46	0.27	0.32
H022-H021	H022	H021	10	72.48	0.0017	0.131	1.33	0.27	0.32
H023-H010	H023	H010	8	62.07	0.0169	0.210	3.56	0.21	0.31
H024-H023	H024	H023	8	558.60	0.0163	0.111	2.92	0.15	0.22
H024-H025	H024	H025	10	245.01	0.0018	0.037	0.94	0.14	0.17
H025-H026	H025	H026	10	260.18	0.0012	0.037	0.81	0.16	0.19
H026-H027	H026	H027	10	279.48	0.0012	0.040	0.83	0.16	0.19
H027-H028	H027	H028	10	112.54	0.0013	0.048	0.92	0.17	0.21
H028-H029	H028	H029	10	257.18	0.0017	0.109	1.28	0.24	0.29
H029-H030	H029	H030	10	368.36	0.0012	0.120	1.16	0.28	0.34
H030-H031	H030	H031	10	371.57	0.0012	0.125	1.16	0.29	0.35
H031-I012	H031	1012	10	217.20	0.0018	0.127	1.36	0.26	0.31
H037-H105	H037	H105	10	143.48	0.0012	0.134	1.18	0.30	0.36
H038-H037	H038	H037	8	255.33	0.0020	0.007	0.60	0.06	0.10
H039-H038	H039	H038	8	221.94	0.0023	0.003	0.50	0.04	0.07
H040-H037	H040	H037	10	176.19	0.0013	0.126	1.18	0.28	0.34
H041-H040	H041	H040	10	180.57	0.0011	0.124	1.12	0.29	0.35
H042-H041	H042	H041	10	208.95	0.0013	0.121	1.19	0.28	0.33
H043-H042	H043	H042	10	348.08	0.0012	0.120	1.15	0.28	0.34
H044-H043	H044	H043	8	263.66	0.0024	0.017	0.85	0.09	0.14
H045-H044	H045	H044	8	105.25	0.0025	0.013	0.79	0.08	0.12
H046-H045	H046	H045	8	185.11	0.0024	0.011	0.74	0.08	0.12
H047-H046	H047	H046	8	256.71	0.0024	0.007	0.65	0.06	0.09
H048-H047	H048	H047	8	257.07	0.0024		0.58	0.05	0.08
H049-H048	H049	H048	8	76.99	0.0025	0.001	0.32	0.02	0.03
H050-H043	H050	H043	10	370.83	0.0012	0.100	1.09	0.26	0.31
H051-H050	H051	H050	10	173.91	0.0012	0.068	0.98	0.21	0.25
H052-H051	H052	H051	8	31.75	0.0025	0.067	1.30	0.19	0.28
H053-H052	H053	H052	8	367.94	0.0049	0.012	0.98	0.07	0.10
H054-H053	H054	H053	8	349.15	0.0024	0.008	0.69	0.07	0.10
H055-H054	H055	H054	8	356.63	0.0024	0.005	0.59	0.05	0.08

Model Results - Existing Peak Dry Weather Flow (PDWF) Scenario

	Erom	To	Diameter		veuther 110	Flow		Water Depth	
Pipe ID	From ID	ID	(inches)	Length (feet)	Slope	(MGD)	Velocity (ft/s)	(feet)	d/D
H056-H050	H056	H050	8	120.40	0.0098	0.027	1.61	0.09	0.13
H057-H056	H057	H056	8	111.24	0.0058	0.027	1.34	0.10	0.15
H058-H057	H058	H057	8	202.28	0.0042	0.004	0.65	0.04	0.06
H059-H058	H059	H058	8	156.47	0.0025	0.002	0.46	0.03	0.05
H060-H044	H060	H044	8	295.35	0.0040	0.003	0.61	0.04	0.06
H061-H045	H061	H045	8	102.73	0.0024	0.002	0.44	0.03	0.05
H062-H046	H062	H046	8	154.62	0.0041	0.003	0.59	0.03	0.05
H063-H047	H063	H047	8	140.27	0.0040	0.002	0.57	0.03	0.05
H064-H048	H064	H048	8	139.81	0.0040	0.002	0.57	0.03	0.05
H065-H106	H065	H106	10	180.62	0.0013	0.055	0.94	0.19	0.22
H066-H065	H066	H065	8	250.93	0.0072	0.016	1.22	0.07	0.11
H067-H066	H067	H066	8	348.08	0.0024		0.79	0.08	0.12
H068A-H068	H068A	H068	8	251.25	0.0024	0.003	0.53	0.04	0.07
H068B-H068A	H068B	H068A	8	465.67	0.0060	0.002	0.66	0.03	0.05
H068-H067	H068	H067	8	312.25	0.0024	0.011	0.75	0.08	0.12
H069-H068	H069	H068	8	389.36	0.0042	0.004	0.68	0.04	0.06
H070-H065	H070	H065	8	71.63	0.0020	0.039	1.02	0.15	0.23
H071-H070	H071	H070	8	244.58	0.0020	0.036	1.00	0.14	0.22
H072-H071	H072	H071	8	327.00	0.0020	0.028	0.94	0.13	0.19
H073-H072	H073	H072	8	259.59	0.0018	0.024	0.86	0.12	0.18
H074-H073	H074	H073	8	251.92	0.0023	0.012	0.76	0.08	0.12
H075-H074	H075	H074	8	179.86	0.0026	0.008	0.71	0.07	0.10
H076-H075	H076	H075	8	270.02	0.0020	0.005	0.80	0.04	0.16
H077-H076	H077	H076	8	140.40	0.0061	0.003	0.50	0.02	0.00
H078-H075	H078	H075	8	281.19	0.0023	0.001	0.53	0.02	0.03
H079-H076	H079	H076	8	143.56	0.0100	0.004	0.78	0.03	0.07
H080-H071	H080	H071	8	224.74	0.0100	0.002	0.78	0.05	0.04
H081-H080	H081	H080	8	260.17	0.0020	0.003	0.54	0.05	0.08
H082-H073	H082	H073	8	329.25	0.0024	0.004	0.58	0.05	0.07
	H083	B021	8	54.69	0.0024	0.003	1.40	0.03	0.08
H083-B021	H084	H083	8	227.00	0.0033	0.039	1.40	0.15	
H084-H083 H085-H084	H085	H084	8	193.57	0.0030	0.047	1.15	0.15	0.22
H086-H085	H086	H085	8	21.87	0.0024	0.043	1.13	0.15	0.23
H087-H086	H087	H086	8	208.71	0.0018	0.044	1.02	0.18	0.24
H088-H087	H088	H087		122.13	0.0024	0.030	1.01	0.13	0.19
		+	8	+					
H089-H088	H089	H088		107.80	0.0022	0.027	0.96	0.12	0.18
H090-H089	H090	H089	8	77.79	0.0015	0.024	0.81	0.13	
H091-H090 H092-H091	H091 H092	H090 H091	8	27.03 203.17	0.0037 0.0024	0.018 0.018	1.00 0.86	0.09 0.10	
H093-B023	H093	B023	8	400.45	0.0024		0.86	0.10	
H094-H093	H094	H093	8	399.49	0.0042		0.99	0.08	
H095-B026A	H095	B026A	8	153.64	0.0038		0.78	0.08	0.09
H096-H095	H096	H095	8	85.04	0.0045		0.50	0.04	
							0.30		
H097-B003	H097	B003 H097	8	373.62	0.0024		0.74	0.08	0.12
H098-H097	H098	+	8	166.59	0.0024 0.0151			0.04	0.06
H099-H097	H099	H097	8	267.45			1.11	0.03	0.05
H100-H099	H100	H099	8	148.76	0.0176		0.69	0.01	0.02
H101-H074	H101	H074	8	224.48	0.0020		0.44	0.04	0.06
H102-B001	H102	B001	8	198.54	0.0060		0.65	0.03	
H103-H099	H103	H099	8	165.05	0.0070		0.75	0.03	
H105-H024	H105	H024	10	300.94	0.0013		1.24	0.29	
H106-H052	H106	H052	10	141.56	0.0011		0.90	0.19	
H107-B005	H107	B005	8	284.80	0.0051		0.62	0.03	
1001-1018	1001	1018	21	12.41	0.0073		3.57	0.37	0.21
1002-1001	1002	1001	12	343.56	0.0020		0.99	0.13	
1003-1002	1003	1002	12	300.48	0.0020	0.040	0.98	0.14	0.14

Model Results - Existing Peak Dry Weather Flow (PDWF) Scenario

			el Results - Existi		veather Fio				
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
1004-1003	1004	1003	12	351.75	0.0029	0.040	1.13	0.12	0.12
1005-1004	1005	1004	12	323.79	0.0020	0.028	0.88	0.11	0.11
1006-1005	1006	1005	12	4.86	0.0021	0.013	0.71	0.08	0.08
1007-1006	1007	1006	12	324.77	0.0020	0.013	0.71	0.08	0.08
1008-1007	1008	1007	12	135.46	0.0018	0.003	0.43	0.04	0.04
1009-1008	1009	1008	12	184.21	0.0021	0.000	0.00	0.00	0.00
1009-1023	1009	1023	12	10.72	0.0028	0.226	1.84	0.29	0.29
1010-1023	1010	1023	21	14.45	0.0021	1.361	2.61	0.65	0.37
1011-1010	1011	1010	10	330.03	0.0037	0.024	1.07	0.10	0.11
1012-1001	1012	1001	15	8.49	-0.0059	0.810	1.02	1.25	1.00
1013-1012	1013	1012	15	343.95	0.0017	0.683	2.06	0.55	0.44
1014-1013	1014	1013	15	351.61	0.0017	0.618	2.00	0.52	0.41
1015-1014	1015	1014	15	69.58	0.0017	0.618	2.01	0.51	0.41
I016A-I016	I016A	1016	15	350.07	0.0015	0.603	1.89	0.53	0.42
I016B-I016A	I016B	I016A	15	68.68	0.0015	0.603	1.87	0.53	0.43
1016-1015	1016	1015	15	278.72	0.0015	0.603	1.90	0.53	0.42
I017A-I017	I017A	1017	15	288.74	0.0015	0.499	1.81	0.47	0.38
I017B-I016B	I017B	I016B	15	248.61	0.0015	0.603	1.89	0.53	0.42
I017-I017B	1017	I017B	15	322.02	0.0015	0.603	1.90	0.53	0.42
1019-1018	1019	1018	24	534.85	0.0015	2.325	2.67	0.89	0.44
1020-1019	1020	1019	24	460.59	0.0013	2.325	2.52	0.93	0.46
1021-1006	1021	1006	12	11.22	0.0006	0.000	0.00	0.00	0.00
1021-1020	1021	1020	24	329.35	0.0018	2.310	2.81	0.85	0.42
1022-1021	1022	1021	21	458.96	0.0014	2.083	2.55	0.91	0.52
1023-1022	1023	1022	21	185.80	0.0014	2.053	2.51	0.91	0.52
1024-1023	1024	1023	12	411.81	0.0036	0.466	2.47	0.40	0.40
1025-1004	1025	1004	8	318.34	0.0024	0.012	0.78	0.08	0.12
1026-1025	1026	1025	8	331.20	0.0024	0.007	0.64	0.06	0.09
1027-1026	1027	1026	8	341.53	0.0024	0.005	0.59	0.05	0.03
1028-1027	1028	1027	8	125.19	0.0090	0.003	0.80	0.03	0.05
1029-1005	1029	1005	8	316.51	0.0024	0.015	0.82	0.09	0.03
1030-1029	1030	1029	8	329.03	0.0024	0.013	0.75	0.08	0.13
1031-1030	1031	1030	8	330.33	0.0024	0.007	0.65	0.06	0.09
1032-1031	1032	1031	8	202.53	0.0024	0.007	0.50	0.04	0.06
1033-1007	1032	1007	8	314.33	0.0024	0.003	0.74	0.04	0.00
1034-1033	1033	1033	8	329.41	0.0024	0.011	0.74	0.08	0.11
1035-1034	1035	1033	8	331.58	0.0024		0.65	0.06	0.09
1036-1035	1036	1034	8	265.34	0.0024	0.007	0.03	0.05	0.03
1030-1033	1036	1009	12	314.91	0.0023	0.004	1.39	0.05	0.07
1037-1003	1		12	336.29	0.0013		1.68	0.33	0.33
	1038	1037				0.222			
1039-1038	1039 1040	1038	12 12	325.20 255.16	0.0019 0.0018	0.220 0.218	1.58 1.57	0.32 0.32	0.32
		-							
1041-1040 1042-1041	I041 I042	1040 1041	12	405.24 59.91	0.0018	0.217	1.55	0.32	0.32
		-	12		0.0024	0.217	1.72	0.30	0.30
1043-1042	1043	1042	12	273.24	0.0024	0.168	1.60	0.26	0.26
1044-1043	1044	1043	12	317.06	0.0012	0.166	1.23	0.31	0.31
1045-1009	1045	1009	12	300.87	0.0021	0.002	0.42	0.04	0.04
1046-1045	1046	1045	12	309.89	0.0021	0.002	0.43	0.03	0.03
1047-1046	1047	1046	12	326.42	0.0020	0.002	0.42	0.04	0.04
1048-1047	1048	1047	12	273.76	0.0024	0.002	0.45	0.03	0.03
1049-1048	1049	1048	12	411.14	0.0016	0.002	0.38	0.04	0.04
1050-1049	1050	1049	12	342.23	0.0020	0.002	0.42	0.04	0.04
1051-1050	1051	1050	12	329.16	0.0019	0.002	0.41	0.04	0.04
1052-1042	1052	1042	8	89.58	0.0036	0.049	1.34	0.15	0.22
1053-1052	1053	1052	8	157.22	0.0024	0.049	1.16	0.16	0.24
1054-1053	1054	1053	8	365.30	0.0024	0.008	0.69	0.07	0.10

Model Results - Existing Peak Dry Weather Flow (PDWF) Scenario

Dina ID	From	То	Diameter	Length		Flow	Velocity	Water Depth	4/5
Pipe ID	ID	ID	(inches)	(feet)	Slope	(MGD)	(ft/s)	(feet)	d/D
1055-1054	1055	1054	8	197.30	0.0024	0.005	0.60	0.05	0.08
1056-1055	1056	1055	8	157.27	0.0024	0.003	0.48	0.04	0.06
1057-1056	1057	1056	8	121.50	0.0040	0.003	0.58	0.03	0.05
1058-1053	1058	1053	8	143.04	0.0024	0.035	1.06	0.14	0.20
1059-1058	1059	1058	8	206.48	0.0025	0.031	1.03	0.13	0.19
1060-1059	1060	1059	8	40.25	0.0025	0.029	1.02	0.12	0.19
1061-1060	1061	1060	8	112.20	0.0023	0.028	0.98	0.12	0.18
1062-1061	1062	1061	8	42.83	0.0210	0.028	2.11	0.07	0.11
1063-1062	1063	1062	8	124.59	0.0023	0.026	0.96	0.12	0.18
1064-1063	1064	1063	8	28.31	0.0035	0.026	1.11	0.11	0.16
1065-1064	1065	1064	8	110.72	0.0024	0.023	0.94	0.11	0.16
1066-1065	1066	1065	8	239.17	0.0024	0.019	0.88	0.10	0.15
1067-1066	1067	1066	8	200.61	0.0024	0.010	0.74	0.07	0.11
1068-1067	1068	1067	8	287.48	0.0039	0.004	0.63	0.04	0.06
1069-1054	1069	1054	8	149.46	0.0040	0.003	0.62	0.04	0.06
1070-1055	1070	1055	8	106.00	0.0040	0.003	0.57	0.03	0.05
1071-1058	1071	1058	8	16.37	0.0024	0.002	0.41	0.03	0.05
1072-1059	1072	1059	8	75.20	0.0024	0.001	0.40	0.03	0.04
1073-1066	1073	1066	8	185.87	0.0040	0.005	0.72	0.05	0.07
1074-1073	1074	1073	8	62.76	0.0024	0.003	0.53	0.04	0.07
1075-1073	1075	1073	8	69.34	0.0025	0.002	0.45	0.03	0.05
1076-1067	1076	1067	8	142.84	0.0037	0.003	0.62	0.04	0.06
1077-1076	1077	1076	8	66.32	0.0047	0.003	0.67	0.04	0.06
1078-1104	1078	1104	8	190.95	0.0036	0.116	1.73	0.23	0.34
1079-1078	1079	1078	8	241.08	0.0036	0.116	1.72	0.23	0.34
1080-1079	1080	1079	8	306.02	0.0115	0.018	1.51	0.07	0.10
1081-1080	1081	1080	8	304.94	0.0031	0.014	0.88	0.08	0.12
1082-1081	1082	1081	8	349.48	0.0037	0.011	0.86	0.07	0.10
1083-1082	1083	1082	8	197.65	0.0084	0.006	0.99	0.04	0.07
1084-1011	1084	1011	8	315.30	0.0036	0.010	0.84	0.07	0.10
1085-1084	1085	1084	8	330.76	0.0036	0.007	0.75	0.06	0.09
1086-1085	1086	1085	8	256.16	0.0036	0.003	0.61	0.04	0.06
1087-1013	1087	1013	8	45.32	0.0040	0.046	1.37	0.14	0.21
1088-1087	1088	1087	8	60.16	0.0815	0.046	3.97	0.07	0.10
1089-1088	1089	1088	8	191.60	0.0041	0.046	1.39	0.14	0.21
1090-1089	1090	1089	8	288.00	0.0048	0.010	0.92	0.06	0.09
1091-1089	1091	1089	8	222.07	0.0058	0.023	1.27	0.09	0.13
1092-1015	1092	1015	8	166.50	0.0171	0.015	1.62	0.06	0.08
1093-1092	1093	1092	8	229.14	0.0040	0.009	0.85	0.06	0.09
1094-1093	1094	1093	8	228.00	0.0040	0.007	0.79	0.06	0.08
1095-1092	1095	1092	8	360.95	0.0040	0.003	0.60	0.04	0.06
1096-1094	1096	1094	8	296.98	0.0060	0.002	0.61	0.03	0.04
1096-1095	1096	1095	8	333.17	0.0061	0.002	0.61	0.03	0.04
1098-1043	1098	1043	8	119.75	0.0023	0.002	0.43	0.03	0.05
1099-1034	1099	1034	8	120.83	0.0118	0.000	0.00	0.00	0.00
I102-I103	1102	1103	18	350.40	0.0015	1.214	2.27	0.71	0.48
I103-I104	1103	1104	18	325.41	0.0015	1.214	2.25	0.72	0.48
1104-1105	1104	1105	18	425.90	0.0020	1.331	2.56	0.70	0.46
1105-1106	I105	1106	18	234.72	0.0020	1.332	2.56	0.70	0.47
1106-1107	1106	1107	18	322.16	0.0021	1.332	2.61	0.69	0.46
1107-1108	1107	1108	18	337.56	0.0020	1.334	2.57	0.70	0.46
1108-1010	1108	1010	18	308.66	0.0020	1.336	2.58	0.69	0.46
J001-I011	J001	1011	10	303.57	0.0036	0.014	0.90	0.07	0.09
J002-J001	J002	J001	10	98.40	0.0037	0.008	0.77	0.06	0.07
J003-J002	J003	J002	10	258.16	0.0036	0.008	0.77	0.06	0.07
J004-J003	J003	J003	10	320.21	0.0036	0.000	0.00	0.00	0.00

Model Results - Existing Peak Dry Weather Flow (PDWF) Scenario

	Erom	To	Diameter		veuther 110	Flow		Water Denth	
Pipe ID	From ID	ID	(inches)	Length (feet)	Slope	(MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
J004-J015	J004	J015	12	6.48	0.0031	0.283	2.03	0.32	0.32
J005-J004	J005	J004	10	264.92	0.0030	0.249	1.96	0.32	0.39
J006-J005	J006	J005	10	45.47	0.0026	0.245	1.87	0.33	0.40
J007-J006	J007	J006	10	168.40	0.0050	0.243	2.35	0.28	0.34
J008-J007	J008	J007	10	203.96	0.0024	0.243	1.80	0.34	0.41
J009-J008	J009	J008	10	329.72	0.0025	0.237	1.82	0.33	0.40
J010A-J010	J010A	J010	8	265.27	0.0100	0.004	0.90	0.03	0.05
J010B-J010A	J010B	J010A	8	247.90	0.0042	0.003	0.59	0.03	0.05
J010-J009	J010	J009	10	201.30	0.0023	0.237	1.77	0.34	0.41
J011-J010	J011	J010	10	148.25	0.0025	0.232	1.80	0.33	0.39
J012-J011	J012	J011	10	350.80	0.0025	0.232	1.79	0.33	0.40
J013-I024	J013	1024	12	329.16	0.0037	0.466	2.49	0.40	0.40
J013-J002	J013	J002	8	8.36	0.0551	0.000	0.00	0.00	0.00
J014-J013	J014	J013	12	249.33	0.0035	0.286	2.14	0.31	0.31
J015-J014	J015	J014	12	327.85	0.0035	0.286	2.14	0.31	0.31
J016-K002	J016	K002	8	52.58	0.0171	0.004	1.12	0.03	0.05
J017-J016	J017	J016	8	149.18	0.0056	0.003	0.70	0.04	0.05
J018-J017	J018	J017	8	72.17	0.0058	0.003	0.67	0.03	0.05
J019-J018	J019	J018	8	288.63	0.0032	0.002	0.51	0.03	0.05
J020-J001	J020	J018 J001	8	319.06	0.0055	0.002	0.31	0.05	0.03
J020-J001 J021-J020	J020 J021	J020	8	319.00	0.0056	0.003	0.81	0.03	0.07
J021-J020 J022-J021	J021 J022	J020 J021	8	241.41	0.0057	0.004	0.72	0.04	0.00
J022-J021 J023-J003	J022 J023	J003	8	321.77	0.0037	0.001	0.51	0.02	0.03
		1	8	_	0.0025	0.004	0.37	0.03	0.07
J024-J023	J024 J025	J023 J024	8	153.56 172.31	0.0013	0.001	0.00	0.00	
J025-J024		-		-					0.00
J026-J023	J026	J023 J004	8	160.02	0.0041	0.002	0.53	0.03	0.04
J027-J004 J028A-J004	J027 J028A	J004 J004	8	15.20 337.47	0.0053 0.0142	0.029 0.005	1.32 1.11	0.10 0.04	0.15 0.05
J028A-J004 J028-J027	J028A	J004 J027	8	309.10	0.0142	0.003	1.11	0.04	0.03
J028-J027 J029-J028	J028 J029	J027 J028	8	161.23	0.0040	0.029	1.06	0.11	0.16
	+						0.97		
J030-J029 J031-J030	J030 J031	J029 J030	8	232.61 261.61	0.0024 0.0020	0.027 0.020	0.85	0.12 0.11	0.18 0.16
	1	-	8	-		0.020	0.83		
J032-J031	J032	J031	8	332.51	0.0024			0.10	0.16
J033-J032	J033	J032	8	355.38	0.0024	0.017	0.86	0.10	0.15
J034-J033	J034	J033	8	362.99	0.0024	0.015	0.83	0.09	0.14
J035-J034	J035	J034	8	49.63	0.0202	0.013	1.67	0.05	0.08
J036-J035	J036	J035	8	352.08	0.0030	0.013	0.85	0.08	
J037-J036	J037	J036	8	307.32	0.0024	0.010	0.73	0.07	0.11
J038-J037	J038	J037	8	153.47	0.0030	0.007	0.72	0.06	0.09
J039-J030	J039	J030	8	187.47	0.0025	0.007	0.65	0.06	0.09
J040-J039	J040	J039	8	250.60	0.0024	0.006	0.62	0.06	0.09
J041-J040	J041	J040	8	257.35	0.0024	0.003	0.52	0.04	0.07
J042-I079	J042	1079	8	302.12	0.0036	0.096	1.64	0.20	0.31
J043-J042	J043	J042	8	106.17	0.0036	0.086	1.58	0.19	0.29
J044-J043	J044	J043	8	246.14	0.0037	0.082	1.57	0.19	0.28
J045-J044	J045	J044	8	331.64	0.0036	0.058	1.41	0.16	0.24
J046-J045	J046	J045	8	101.06	0.0036	0.051	1.36	0.15	0.22
J047-J046	J047	J046	8	245.47	0.0024	0.013	0.80	0.08	0.13
J048-J047	J048	J047	8	257.53	0.0024	0.010	0.73	0.07	0.11
J049-J048	J049	J048	8	350.19	0.0024	0.010	0.73	0.07	0.11
J050-J049	J050	J049	8	200.23	0.0024	0.005	0.58	0.05	0.08
J051-J044	J051	J044	8	302.97	0.0024	0.020	0.89	0.10	0.16
J052-J051	J052	J051	8	301.14	0.0024	0.015	0.82	0.09	0.13
J053-J052	J053	J052	8	353.90	0.0021	0.008	0.64	0.07	0.10
J054-J053	J054	J053	8	199.03	0.0024	0.005	0.59	0.05	0.08
J055-J052	J055	J052	8	155.51	0.0023	0.002	0.47	0.04	0.06

Model Results - Existing Peak Dry Weather Flow (PDWF) Scenario

	From	To	Diameter	Length	rveuther ric	Flow	Velocity	Water Depth	
Pipe ID	ID	ID	(inches)	(feet)	Slope	(MGD)	(ft/s)	(feet)	d/D
J056-J044	J056	J044	8	386.06	0.0045	0.005	0.73	0.04	0.07
J057-J056	J057	J056	8	318.68	0.0027	0.002	0.47	0.03	0.05
J058-J057	J058	J057	8	224.51	0.0057	0.001	0.46	0.02	0.03
J059-J057	J059	J057	8	248.31	0.0037	0.001	0.36	0.02	0.03
J060-J042	J060	J042	8	300.82	0.0024	0.010	0.73	0.07	0.11
J061-J060	J061	J060	8	305.54	0.0023	0.007	0.65	0.06	0.10
J062-J061	J062	J061	8	350.99	0.0025	0.005	0.61	0.05	0.08
J063-J062	J063	J062	8	172.55	0.0024	0.003	0.48	0.04	0.06
J064-J043	J064	J043	8	302.05	0.0024	0.004	0.54	0.05	0.07
J065-J064	J065	J064	8	306.90	0.0023	0.003	0.52	0.05	0.07
J066-J065	J066	J065	8	347.83	0.0025	0.003	0.51	0.04	0.06
J067-J066	J067	J066	8	218.34	0.0023	0.001	0.35	0.03	0.04
J068-J046	J068	J046	8	330.39	0.0038	0.035	1.24	0.12	0.18
J069-J068	J069	J068	8	323.71	0.0034	0.018	0.99	0.09	0.14
J070-J069	J070	J069	8	249.20	0.0026	0.016	0.87	0.09	0.14
J071-J070	J071	J070	8	253.87	0.0030	0.014	0.88	0.08	0.13
J072-J071	J072	J071	8	351.21	0.0060	0.005	0.84	0.04	0.07
J073-J072	J073	J072	8	100.47	0.0060	0.003	0.70	0.03	0.05
J074-J068	J074	J068	8	251.93	0.0052	0.017	1.11	0.08	0.12
J075-J074	J075	J074	8	255.17	0.0048	0.013	1.00	0.07	0.11
J076-J075	J076	J075	8	349.80	0.0048	0.010	0.92	0.06	0.09
J077-J076	J077	J076	8	198.72	0.0048	0.005	0.74	0.04	0.07
J078-K033	J078	K033	8	324.22	0.0020	0.009	0.65	0.07	0.11
J079-J078	J079	J078	8	326.03	0.0020	0.007	0.60	0.06	0.10
J080-J079	J080	J079	8	296.41	0.0020	0.005	0.56	0.06	0.08
J081-J052	J081	J052	8	157.65	0.0024	0.003	0.48	0.04	0.06
J082-J080	J082	J080	8	26.47	0.0053	0.003	0.45	0.03	0.05
K001-J012	K001	J012	10	339.69	0.0033	0.003	1.90	0.31	0.03
K001 3012 K002-K001	K001	K001	8	65.28	0.0025	0.109	2.20	0.18	0.37
K002 K001	K002	K001	8	25.30	0.0079	0.103	2.22	0.17	0.26
K003-K002 K004-K003	K003	K002	8	313.97	0.0140	0.104	2.03	0.09	0.20
K004-K003	K004	K003	8	319.73	0.0140	0.039	1.26	0.03	0.14
K003-K004 K006-K003	K005	K004	8	214.91	0.0040	0.034	1.40	0.12	0.16
K006-K003 K007A-K007	K007A	K003	8	406.37	0.0032	0.063	1.40	0.17	0.20
K007A-K007	K007A	K007		208.69	0.0039	0.034	1.43	0.13	0.22
		+	8	263.04					
K008-K007	K008	K007			0.0032	0.006	0.71	0.06	0.08
K009-K008	K009	K008	8	285.58	0.0032		0.61	0.04	
K010-E010	K010	E010	8	133.52	0.0027	0.051 0.048	1.23	0.16 0.16	
K011-K010	K011	K010	8	308.30 202.46	0.0024		1.16	0.18	
K012-K011	K012	K011	8	-	0.0024		1.02		
K013-K012 K014-K013	K013	K012	8	20.61	0.0029		1.08 0.89	0.12	0.18
	K014	_	8	140.37	0.0024			0.10	
K015-K014	K015	K014	8	133.12	0.0025		0.89	0.10	
K016-K015	K016	K015	8	128.02	0.0024		0.87	0.10	
K017-K016	K017	K016	8	301.15	0.0024		0.86	0.10	
K018-K017	K018	K017	8	298.64	0.0024		0.78	0.08	
K019-K018	K019	K018	8	278.75	0.0181		1.36	0.04	0.06
K020-K013	K020	K013	8	359.70	0.0034		0.78	0.06	
K021-K020	K021	K020	8	358.42	0.0034		0.67	0.05	
K022-K021	K022	K021	8	361.29	0.0100		0.56	0.02	0.02
K023-K024	K023	K024	8	288.48	0.0032		0.71	0.06	
K024-K025	K024	K025	8	282.86	0.0032		0.81	0.07	0.10
K025-K011	K025	K011	8	290.40	0.0032		0.88	0.08	
K026-K025	K026	K025	8	201.10	0.0032		0.38	0.02	0.03
K027-K024	K027	K024	8	197.24	0.0033		0.47	0.03	
K028-K023	K028	K023	8	201.74	0.0032	0.002	0.48	0.03	0.05

Model Results - Existing Peak Dry Weather Flow (PDWF) Scenario

	_		el Results - Existi		veather Fio				
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
K029-E012	K029	E012	8	287.92	0.0031	0.007	0.72	0.06	0.09
K030-E001	K030	E001	8	191.67	0.0020	0.022	0.86	0.11	0.17
K031-K030	K031	K030	8	195.96	0.0036	0.019	1.02	0.09	0.14
K032-K031	K032	K031	8	153.65	0.0046	0.019	1.11	0.09	0.13
K033-K032	K033	K032	8	349.69	0.0006	0.010	0.45	0.10	0.15
K034-K813	K034	K813	8	316.89	0.0027	0.023	0.97	0.11	0.16
K035-K034	K035	K034	8	284.42	0.0027	0.023	1.15	0.10	0.14
K036-K035	K036	K035	8	282.79	0.0043	0.023	1.13	0.10	0.15
K030-K033	K030	J038	8	69.67	0.0041	0.023	0.80	0.16	0.13
K040-K039	K040	K039	8	253.98	0.0045	0.007	0.80	0.05	0.03
K812-L032	K812	L032	8	318.40	0.0043	0.003	1.10	0.03	0.07
K812-L032 K813-K812	K813	K812	8	339.95	0.0052	0.023	1.22	0.10	0.13
	1								
L001A-L001	L001A	L001	8	128.50	0.0086	0.001	0.62	0.02	0.03
L001-L002	L001	L002	8	252.90	0.0055	0.024	1.26	0.09	0.14
L002-L003	L002	L003	8	177.56	0.0094	0.024	1.52	0.08	0.12
L003-K806	L003	K806	8	129.94	0.0031	0.034	1.14	0.13	0.19
L010-L032	L010	L032	8	299.86	0.0018	0.014	0.72	0.09	0.14
L011-L010	L011	L010	8	104.63	0.0030	0.014	0.86	0.08	0.12
L012-L011	L012	L011	8	94.44	0.0037	0.009	0.83	0.06	0.10
L013-F011	L013	F011	8	206.45	0.0032	0.005	0.64	0.05	0.07
L014-K023	L014	K023	8	305.05	0.0096	0.003	0.82	0.03	0.05
L015-L014	L015	L014	8	201.37	0.0032	0.001	0.44	0.03	0.04
L016-L001	L016	L001	8	453.04	0.0070	0.013	1.15	0.07	0.10
L017-L003	L017	L003	8	140.50	0.0040	0.010	0.87	0.07	0.10
L018-L017	L018	L017	8	156.46	0.0041	0.010	0.87	0.06	0.10
L019-L018	L019	L018	8	163.83	0.0075	0.010	1.08	0.06	0.08
L020-L803	L020	L803	8	211.78	0.0024	0.073	1.31	0.20	0.29
L021-L020	L021	L020	8	211.19	0.0023	0.007	0.64	0.06	0.09
L022-L021	L022	L021	8	64.73	0.0029	0.002	0.50	0.04	0.05
L023-L020	L023	L020	8	338.77	0.0024	0.060	1.24	0.18	0.27
L024-L023	L024	L023	8	207.76	0.0024	0.049	1.16	0.16	0.24
L025-L024	L025	L024	8	67.35	0.0336	0.046	2.90	0.08	0.12
L026-L025	L026	L025	8	110.72	0.0098	0.046	1.88	0.11	0.17
L027-L026	L027	L026	8	289.85	0.0383	0.011	1.99	0.04	0.06
L028-L027	L028	L027	8	90.64	0.0097	0.011	1.23	0.06	0.08
L029-L026	L029	L026	8	326.23	0.0022	0.019	0.86	0.10	0.16
L030-L029	L030	L029	8	346.29	0.0040	0.016	1.01	0.08	0.13
L031A-L031	L031A	L031	8	321.18	0.0034	0.006	0.69	0.05	0.08
L031B-L031A	L031B	L031A	8	232.58	0.0047	0.002	0.60	0.03	0.05
L031-L023	L031	L023	8	28.42	0.0795	0.011	2.56	0.03	0.05
L032-L032A	L032	L032A	8	48.96	0.1007	0.037	3.98	0.06	0.08
L803-L007	L803	L007	8	196.58	0.0124	0.078	2.39	0.13	0.20
L804-L803	L804	L803	8	118.93	0.0119	0.005	1.01	0.04	0.05
L805-L804	L805	L804	8	322.07	0.0020	0.005	0.54	0.05	0.08
L806-L805	L806	L805	8	318.88	0.0020	0.002	0.43	0.04	0.06
M001-H023	M001	H023	8	79.52	0.0021	0.100	1.37	0.24	0.36
M002-M001	M002	M001	8	250.41	0.0024	0.098	1.42	0.23	0.35
M003-M002	M003	M002	8	297.92	0.0024	0.092	1.39	0.22	0.34
M004-M003	M004	M003	8	103.43	0.0044	0.090	1.72	0.19	0.28
M005-M004	M005	M004	8	230.63	0.0023	0.083	1.35	0.21	0.32
M006-M005	M006	M005	8	359.65	0.0103	0.019	1.47	0.07	0.11
M007-M006	M007	M006	8	91.46	0.0040	0.014	0.97	0.08	0.12
M008-M007	M008	M007	8	59.49	0.0414	0.014	1.51	0.03	0.12
M009-M007	M009	M007	8	162.34	0.0029	0.010	0.78	0.03	0.04
M010-M009	M010	M009	8	213.81	0.0023	0.010	0.67	0.07	0.10
M011-M010	M011	M010	8	328.18	0.0023	0.005	0.60	0.07	0.10
IAIOTT-IAIOTO	IMIOTT	IMIOTO	_ o	320.18	0.0024	0.005	0.60	0.06	0.08

Model Results - Existing Peak Dry Weather Flow (PDWF) Scenario

Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
pc .b	ID	ID	(inches)	(feet)	•	(MGD)	(ft/s)	(feet)	u, 5
M012-M011	M012	M011	8	120.73	0.0051	0.005	0.78	0.05	0.07
M013-M004	M013	M004	8	249.71	0.0305	0.004	1.39	0.03	0.04
M014-M013	M014	M013	8	78.79	0.0039	0.001	0.47	0.03	0.04
M015-M008	M015	M008	8	98.83	0.0065	0.004	0.79	0.04	0.06
M016-M005	M016	M005	8	66.98	0.0023	0.063	1.24	0.18	0.28
M017-M016	M017	M016	8	65.41	0.0023	0.062	1.23	0.18	0.27
M018-M017	M018	M017	8	238.51	0.0020	0.026	0.92	0.12	0.19
M019-M018	M019	M018	8	114.29	0.0024	0.004	0.55	0.05	0.07
M020-M019	M020	M019	8	29.32	0.1214	0.004	2.18	0.02	0.03
M021-M020	M021	M020	8	147.14	0.0040	0.004	0.67	0.04	0.06
M022-M017	M022	M017	8	216.73	0.0023	0.029	0.99	0.13	0.19
M023-M022	M023	M022	8	197.36	0.0024	0.026	0.97	0.12	0.18
M024-M023	M024	M023	8	242.75	0.0021	0.020	0.86	0.11	0.16
M025-M024	M025	M024	8	88.29	0.0399	0.002	1.22	0.02	0.03
M026-M024	M026	M024	8	85.67	0.0369	0.002	1.14	0.02	0.03
M027-M024	M027	M024	8	177.64	0.0025	0.016	0.85	0.09	0.14
M028-M027	M028	M027	8	80.26	0.0021	0.016	0.80	0.10	0.14
M029-M028	M029	M028	8	37.28	0.0026	0.015	0.83	0.09	0.13
M030-M029	M030	M029	8	229.79	0.0024	0.007	0.66	0.06	0.09
M031-M030	M031	M030	8	209.57	0.0024	0.005	0.59	0.05	0.08
M032-M031	M032	M031	8	210.07	0.0024	0.003	0.50	0.04	0.06
M033-M028	M033	M028	8	80.18	0.0160	0.001	0.76	0.02	0.03
M034-M029	M034	M029	8	156.56	0.0040	0.004	0.68	0.04	0.07
M035-M034	M035	M034	8	98.20	0.0040	0.004	0.68	0.04	0.07
M036-M018	M036	M018	8	347.08	0.0024	0.016	0.84	0.09	0.14
M037-M036	M037	M036	8	127.11	0.0290	0.002	1.12	0.02	0.03
M038-M036	M038	M036	8	207.42	0.0024	0.010	0.74	0.08	0.11
M039-M038	M039	M038	8	225.51	0.0024	0.008	0.68	0.07	0.10
M040-M039	M040	M039	8	152.47	0.0040	0.006	0.74	0.05	0.08
M041-M040	M041	M040	8	125.91	0.0041	0.002	0.57	0.03	0.05
M042-M040	M042	M040	8	109.35	0.0039	0.002	0.51	0.03	0.04
M043-H028	M043	H028	8	304.74	0.0013	0.051	0.95	0.19	0.29
M044-M043	M044	M043	8	150.92	0.0020	0.016	0.78	0.10	0.15
M045-M044	M045	M044	8	32.88	0.0046	0.006	0.78	0.05	0.07
M046-M045	M046	M045	8	113.39	0.0053	0.006	0.82	0.05	0.07
M047-M046	M047	M046	8	111.85	0.0060	0.002	0.60	0.03	0.04
M048-M044	M048	M044	8	141.92	0.0044	0.010	0.90		0.10
M049-M048	M049	M048	8	68.54	0.0146	0.001	0.71	0.02	0.03
M050-M048	M050	M048	8	264.07	0.0039	0.004	0.65	0.04	0.06
M051-M050	M051	M050	8	91.85	0.0039	0.002	0.52	0.03	0.04
M052-M050	M052	M050	8	97.89	0.0039	0.002	0.53	0.03	0.05
M053-M043	M053	M043	8	162.96	0.0020	0.036	1.00	0.14	0.21
M054-M053	M054	M053	8	200.63	0.0020	0.031	0.95	0.13	0.20
M055-M054	M055	M054	8	175.18	0.0021	0.026	0.92	0.12	0.18
M056-M055	M056	M055	8	124.49	0.0024	0.016	0.83	0.09	0.14
M057-M056	M057	M056	8	130.65	0.0015	0.016	0.71	0.10	0.15
M058-M057	M058	M057	8	265.40	0.0025	0.016	0.84	0.09	0.14
M059-M058	M059	M058	8	172.11	0.0024	0.009	0.71	0.07	0.11
M060-M055	M060	M055	8	112.44	0.0024	0.010	0.71	0.07	0.11
M061-M060	M061	M060	8	112.44	0.0023	0.010	0.72	0.08	0.06
M062-M060	M062	M060	8	166.87	0.0024	0.002	0.47	0.04	0.00
M063-M062	M063	M062	8	50.55	0.0025	0.006	0.62	0.06	0.09
		M063		41.82	0.0025	0.006			
M064-M063	M064	+	8				0.63	0.06	0.09
M065-M064	M065	M064	8	58.79	0.0023	0.006	0.62	0.06	0.09
M066A-N092	M066A	N092	8	105.50	0.0845	0.008	2.38	0.03	0.04
M066-M066A	M066	M066A	8	18.46	0.0157	0.008	1.32	0.04	0.06

Model Results - Existing Peak Dry Weather Flow (PDWF) Scenario

	From	To	Diameter	Length	vediner rio	Flow	Velocity	Water Depth	
Pipe ID	ID	ID	(inches)	(feet)	Slope	(MGD)	(ft/s)	(feet)	d/D
M067-M066	M067	M066	8	351.06	0.0086	0.008	1.07	0.05	0.07
M068-N094	M068	N094	8	131.56	0.0017	0.059	1.08	0.19	0.29
M069-M068	M069	M068	8	68.75	0.0019	0.056	1.11	0.18	0.27
M070-M069	M070	M069	8	136.67	0.0020	0.049	1.09	0.17	0.25
M071-M070	M071	M070	8	141.35	0.0016	0.043	0.98	0.17	0.25
M072-M071	M072	M071	8	54.01	0.0020	0.043	1.06	0.16	0.23
M073-M072	M073	M072	8	44.37	0.0018	0.026	0.88	0.13	0.19
M074-M073	M074	M073	8	75.91	0.0018	0.018	0.79	0.10	0.16
M075-M074	M075	M074	8	149.71	0.0021	0.018	0.83	0.10	0.15
M076-M075	M076	M075	8	24.44	0.0021	0.013	0.75	0.09	0.13
M077-M076	M077	M076	8	178.24	0.0022	0.009	0.69	0.07	0.11
M078-M077	M078	M077	8	15.22	0.0046	0.002	0.59	0.03	0.05
M079-M078	M079	M078	8	103.98	0.0020	0.002	0.44	0.04	0.06
M080-M068	M080	M068	8	175.94	0.0205	0.003	1.06	0.03	0.04
M081-M070	M081	M070	8	39.12	0.0041	0.006	0.76	0.05	0.04
M082-M081	M082	M081	8	219.67	0.0041	0.003	0.58	0.03	0.05
M083-M082	M083	M082	8	122.25	0.0039	0.003	0.57	0.03	0.05
M084-M069	M084	M069	8	219.48	0.0033	0.007	0.79	0.06	0.08
M085-M084	M085	M084	8	325.40	0.0039	0.002	0.53	0.03	0.05
M086-M072	M086	M072	8	173.38	0.0040		1.02	0.08	0.13
M087-M086	M087	M086	8	279.92	0.0040	0.009	0.83	0.06	0.09
M088-M073	M088	M073	8	176.10	0.0040	0.003	0.57	0.03	0.05
M089-M075	M089	M075	8	132.74	0.0040	0.005	0.70	0.05	0.03
M090-M089	M090	M089	8	103.46	0.0041	0.003	0.70	0.03	0.07
M091-M089	M091	M089	8	85.87	0.0041	0.003	0.42	0.02	0.03
M092-M077	M092	M077	8	212.79	0.0024	0.001	0.42	0.06	0.09
M093-M092	M093	M092	8	169.76	0.0180	0.004	1.12	0.03	0.05
M094-M093	M094	M093	8	264.84	0.0024	0.004	0.48	0.04	0.06
M095-N013	M095	N013	8	392.43	0.0024	0.003	1.03	0.04	0.00
N002-N001	N002	N001	8	7.60	1.1124	0.011	6.80	0.00	0.03
N002-N001	N002	N001	8	140.56	0.0047	0.014	0.93	0.02	0.03
N004-N003	N003	N002	8	352.94	0.0047	0.010	0.93	0.07	0.10
N004 N003	N004	N002	8	187.28	0.0040	0.010	0.64	0.04	0.06
N009-N010	N009	N010	8	397.32	0.0040	0.004	0.53	0.04	0.00
N010-N006	N010	N006	8	6.12	0.9820	0.001	5.17	0.02	0.03
N011-N012	N010	N012	8	146.81	0.0070	0.002	0.61	0.02	0.02
N011-N012 N012-N007	N011	N007	8	10.94	0.0070	0.002	3.01	0.02	
N012-N007	N012	N012	8	89.48	0.0323	0.010	1.69	0.04	0.08
N013-N012 N014-N013	N013	N012	8	82.82	0.0069	0.014	0.77	0.03	0.05
N015-N014	N015	N013	8	121.18	0.0120	0.004	0.76	0.02	0.03
N017-N018	N017	N014 N018	8	142.82	0.0039	0.001	0.45	0.02	0.04
N018-N092	N017	N092	8	56.41	0.0452	0.014	2.25	0.04	0.07
N019-N018	N019	N018	8	177.21	0.0032	0.017	0.72	0.04	0.07
N020-N019	N020	N019	8	360.42	0.0032	0.007	0.72	0.06	0.09
N020-N019 N021-N018	N020	N019 N018	8	138.34	0.0033	0.007	1.03	0.04	0.09
N021-N018 N022-N021	N021	N018	8	348.23	0.0033	0.006	0.68	0.04	0.08
N022-N021 N023-N022	N022	N021	8	348.23	0.0032	0.003	0.58	0.03	0.06
	1	1							
N024-I021	N024	1021	12	151.95	0.0026	0.227	1.78	0.30	0.30
N025-N024	N025	N024	15	102.82	0.0009	0.216	1.17	0.35	0.28
N026-N025	N026	N025	15	129.78	0.0008	0.214	1.12	0.36	0.29
N027-N026	N027	N026	15	20.16	0.0010	0.213	1.22	0.34	0.27
N028-N027	N028	N027	15	115.95	0.0008	0.212	1.12	0.36	0.29
N029-N028	N029	N028	15	28.33	0.0011	0.210	1.25	0.33	0.27
N030-N029	N030	N029	15	133.58	0.0008	0.209	1.14	0.35	0.28
N031-N030	N031	N030	15	95.83	0.0009	0.208	1.19	0.34	0.27
N032-N095	N032	N095	12	130.65	0.0012	0.200	1.32	0.34	0.34

Model Results - Existing Peak Dry Weather Flow (PDWF) Scenario

Dine ID	From	То	Diameter	Length		Flow	Velocity	Water Depth	4/0
Pipe ID	ID	ID	(inches)	(feet)	Slope	(MGD)	(ft/s)	(feet)	d/D
N033-N032	N033	N032	12	325.24	0.0012	0.194	1.30	0.34	0.34
N034-N033	N034	N033	12	295.68	0.0012	0.167	1.25	0.31	0.31
N035-N034	N035	N034	12	296.87	0.0012	0.161	1.22	0.31	0.31
N036-N035	N036	N035	12	291.04	0.0015	0.137	1.27	0.27	0.27
N037-N036	N037	N036	12	295.39	0.0014	0.117	1.17	0.25	0.25
N038-N037	N038	N037	12	328.67	0.0011	0.098	1.02	0.24	0.24
N039-N038	N039	N038	8	351.12	0.0021	0.019	0.85	0.10	0.16
N040-N039	N040	N039	8	350.04	0.0027	0.016	0.87	0.09	0.14
N041-N040	N041	N040	8	350.40	0.0024	0.011	0.75	0.08	0.12
N042-N041	N042	N041	8	351.89	0.0024	0.006	0.64	0.06	0.09
N043-N042	N043	N042	8	155.63	0.0040	0.002	0.56	0.03	0.05
N044-N024	N044	N024	8	188.69	0.0038	0.009	0.84	0.06	0.10
N045-N044	N045	N044	8	120.12	0.0036	0.008	0.77	0.06	0.09
N046-N045	N046	N045	8	33.87	0.0033	0.006	0.70	0.05	0.08
N047-N046	N047	N046	8	113.01	0.0037	0.005	0.70	0.05	0.07
N048-N047	N048	N047	8	16.67	0.0036	0.004	0.62	0.04	0.06
N049-N048	N049	N048	8	144.14	0.0040	0.003	0.58	0.04	0.05
N050-N049	N050	N049	8	171.77	0.0038	0.001	0.34	0.02	0.02
N051-N025	N051	N025	8	83.97	0.0811	0.002	1.42	0.01	0.02
N052-N026	N052	N026	8	98.61	0.0484	0.002	1.16	0.02	0.02
N053-N027	N053	N027	8	85.84	0.0417	0.001	0.96	0.01	0.02
N054-N028	N054	N028	8	97.27	0.0358	0.002	1.06	0.02	0.02
N055-N029	N055	N029	8	83.87	0.0352	0.001	0.97	0.01	0.02
N056-N030	N056	N030	8	84.03	0.0331	0.001	0.97	0.02	0.02
N057-N033	N057	N033	8	290.98	0.0024	0.025	0.96	0.12	0.17
N058-N057	N058	N057	8	305.40	0.0024	0.019	0.89	0.10	0.15
N059-N058	N059	N058	8	308.21	0.0024	0.014	0.80	0.09	0.13
N060-N059	N060	N059	8	323.69	0.0024	0.011	0.74	0.08	0.11
N061-N060	N061	N060	8	90.73	0.0072	0.008	1.01	0.05	0.08
N062-N061	N062	N061	8	245.20	0.0022	0.005	0.59	0.06	0.08
N063-N062	N063	N062	8	231.82	0.0026	0.002	0.46	0.03	0.05
N064-N034	N064	N034	8	352.38	0.0047	0.007	0.82	0.05	0.08
N065-N064	N065	N064	8	192.34	0.0037	0.002	0.53	0.03	0.05
N066-N035	N066	N035	8	349.57	0.0024	0.019	0.89	0.10	0.15
N067-N066	N067	N066	8	351.73	0.0025	0.015	0.84	0.09	0.14
N068-N067	N068	N067	8	349.04	0.0024	0.011	0.75	0.08	0.12
N069-N068	N069	N068	8	349.92	0.0024	0.006	0.63	0.06	0.09
N070-N069	N070	N069	8	110.69	0.0024	0.002	0.44	0.03	0.05
N071-N036	N071	N036	8	351.14	0.0024	0.021	0.90	0.10	0.16
N072-N071	N072	N071	8	349.04	0.0024	0.015	0.83	0.09	0.14
N073-N072	N073	N072	8	350.89	0.0024	0.011	0.75	0.08	0.12
N074-N073	N074	N073	8	349.96	0.0024	0.006	0.63	0.06	0.09
N075-N074	N075	N074	8	121.01	0.0024	0.002	0.42	0.03	0.05
N076-N037	N076	N037	8	351.74	0.0024	0.019	0.89	0.10	0.15
N077-N076	N077	N076	8	350.59	0.0024	0.015	0.83	0.09	0.14
N078-N077	N078	N077	8	348.52	0.0024	0.011	0.74	0.08	0.11
N079-N078	N079	N078	8	348.41	0.0024	0.006	0.63	0.06	0.09
N080-N079	N080	N079	8	164.51	0.0024	0.002	0.47	0.04	0.06
N081-N044	N081	N044	8	48.75	0.0851	0.002	1.46	0.01	0.02
N082-N045	N082	N045	8	91.95	0.0302	0.002	0.99	0.02	0.03
N083-N046	N083	N046	8	49.33	0.0470	0.001	1.00	0.01	0.02
N084-N047	N084	N047	8	97.62	0.0163	0.002	0.80	0.02	0.03
N085-N048	N085	N048	8	45.43	0.0315	0.001	0.90	0.01	0.02
N086-N049	N086	N049	8	45.57	0.0033	0.001	0.40	0.02	0.03
N087-N057	N087	N057	8	228.58	0.0037	0.004	0.66	0.04	0.07
N088-N058	N088	N058	8	123.56	0.0047	0.003	0.65	0.04	0.05

Model Results - Existing Peak Dry Weather Flow (PDWF) Scenario

Din a ID	From	То	Diameter	Length		Flow	Velocity	Water Depth	4/5
Pipe ID	ID	ID	(inches)	(feet)	Slope	(MGD)	(ft/s)	(feet)	d/D
N089-I022	N089	1022	8	360.33	0.0025	0.030	1.02	0.12	0.19
N090-N089	N090	N089	8	296.23	0.0024	0.017	0.86	0.10	0.14
N091-N090	N091	N090	8	195.08	0.0032	0.017	0.95	0.09	0.13
N095-N096	N095	N096	12	316.95	0.0012	0.207	1.32	0.35	0.35
N096-N097	N096	N097	15	10.82	0.0011	0.207	1.26	0.33	0.26
N097-N031	N097	N031	15	69.55	0.0007	0.207	1.08	0.36	0.29
N098-N010	N098	N010	8	199.26	0.0086	0.004	0.85	0.03	0.05
N099-N008	N099	N008	8	45.44	0.0046	0.002	0.59	0.03	0.05
O001-O032	0001	O032	8	352.39	0.0024	0.173	1.65	0.31	0.47
O002-O001	O002	0001	8	357.97	0.0024	0.163	1.62	0.31	0.46
O003-O002	O003	O002	8	339.74	0.0025	0.160	1.64	0.30	0.45
O004-O003	O004	O003	8	116.62	0.0021	0.153	1.52	0.31	0.46
O005-O004	O005	0004	8	231.69	0.0026	0.010	0.75	0.07	0.11
O006-O005	0006	O005	8	309.84	0.0025	0.010	0.74	0.07	0.11
O007-O006	O007	0006	8	201.12	0.0024	0.010	0.73	0.07	0.11
O008-O007	0008	O007	8	200.99	0.0026	0.007	0.68	0.06	0.09
O009A-O004	O009A	0004	8	86.35	0.0029	0.143	1.69	0.27	0.40
O009-O009A	0009	O009A	8	116.52	0.0022	0.143	1.51	0.29	0.44
0012-0133	0012	0133	8	137.80	0.0023	0.097	1.38	0.23	0.35
0013-0012	0013	0012	8	117.21	0.0024	0.093	1.40	0.22	0.34
0014-0013	0014	0013	8	31.49	0.0035	0.064	1.44	0.17	0.25
O015A-O015	0015A	0015	8	139.99	0.0039	0.054	1.43	0.15	0.22
0015-0014	0015	0014	8	81.38	0.0042	0.064	1.53	0.16	0.24
O016A-O015A	O016A	0015A	8	105.26	0.0034	0.054	1.35	0.16	0.23
O016-O016A	0016	0016A	8	26.31	0.0027	0.054	1.26	0.16	0.25
0017-0031	0017	0031	8	276.21	0.0052	0.012	1.01	0.07	0.10
0018-0017	0017	0017	8	88.55	0.0022	0.009	0.68	0.07	0.11
0019-0018	0019	0017	8	165.32	0.0022	0.003	0.50	0.04	0.11
0020-0018	0020	0018	8	311.12	0.0024	0.005	0.58	0.05	0.07
0020-0018	0020	0016	8	177.54	0.0024	0.003	1.02	0.03	0.08
0021-0010	0021	0010	8	217.34	0.0020	0.033	1.02	0.13	0.23
0022-0021	0022	0021	8	250.45	0.0024	0.037	1.08	0.14	0.21
0023-0022	0023	0022	8	204.55	0.0024	0.033	0.72	0.13	0.20
		-							
0025-0024	0025	O024 O025	8	272.79	0.0026 0.0023	0.008 0.005	0.71 0.60	0.07	0.10
0026-0025	0026	+	8	219.91			0.50	0.06	0.08
0027-0026	0027	0026		226.94	0.0023	0.003		0.04	0.06
0028-0023	0028	0023	8	135.42	0.0038	0.022	1.08		0.14
0029-0013	0029	0013	8	259.61	0.0034	0.030	1.14	0.12	0.17
O030A-O029	O030A	0029	8	138.32	0.0027	0.011	0.78	80.0	0.12
O030-O030A	0030	O030A	8	109.69	0.0041	0.011	0.91	0.07	0.10
0031-0016	0031	0016	8	254.98	0.0060	0.015	1.14	0.07	0.11
O032-J013	0032	J013	8	341.01	0.0034	0.180	1.91	0.29	0.43
O133-O134A	0133	O134A	8	117.79	0.0023	0.100	1.42	0.23	0.35
O134A-O134	O134A	0134	8	167.80	0.0024	0.100	1.44	0.23	0.35
0134-0136	0134	0136	8	160.98	0.0025	0.106	1.47	0.24	0.36
0136-0138	0136	0138	8	59.68	0.0034	0.133	1.75	0.25	0.37
0137-0136	0137	0136	8	121.57	0.0035	0.027	1.11	0.11	0.16
O138-O009	0138	0009	8	84.73	0.0034	0.143	1.80	0.26	0.38
O139A-O138	O139A	0138	8	87.05	0.0060	0.010	1.02	0.06	0.09
O139-O139A	0139	O139A	6	48.58	0.0107	0.000	0.00	0.00	0.00
O140-O139A	O140	O139A	8	160.12	0.0000	0.000	0.00	0.00	0.00
0141-0140	0141	O140	6	87.24	0.0000	0.000	0.00	0.00	0.00
0142-0140	0142	O140	8	164.07	0.0000	0.000	0.00	0.00	0.00
O143-O142	0143	0142	6	55.73	0.0000	0.000	0.00	0.00	0.00
0144-0142	O144	0142	6	109.53	0.0000	0.000	0.00	0.00	0.00
OC03-V001	OC03	V001	21	13.56	0.0096	0.157	2.37	0.15	0.09

Model Results - Existing Peak Dry Weather Flow (PDWF) Scenario

	F		Pit		Teather 110			Matau Danth	
Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
D004 D003	ID DOO1	ID	(inches)	(feet)	0.0035	(MGD)	(ft/s)	(feet)	0.22
R001-R802	R001	R802	8	251.84	0.0035	0.101	1.63	0.21	0.32
R002-R001	R002	R001	8	194.35	0.0024	0.101	1.44	0.23	0.35
R003-R002	R003	R002	8	359.63	0.0024	0.023	0.94	0.11	0.17
R004-R003	R004	R003	8	360.43	0.0024	0.018	0.88	0.10	0.15
R005-R004	R005	R004	8	361.12	0.0024	0.014	0.80	0.09	0.13
R006-R005	R006	R005	8	71.73	0.0335	0.009	1.79	0.04	0.06
R007-R006	R007	R006	8	349.15	0.0024	0.009	0.71	0.07	0.11
R008-R085	R008	R085	8	337.74	0.0025	0.005	0.59	0.05	0.08
R009-R008	R009	R008	8	351.82	0.0024	0.002	0.47	0.04	0.06
R010-R009	R010	R009	8	86.57	0.0029	0.000	0.30	0.02	0.02
R011-R804	R011	R804	15	399.04	0.0049	0.955	3.30	0.49	0.39
R012-R011	R012	R011	15	399.22	0.0029	0.955	2.72	0.57	0.46
R013-R012	R013	R012	15	397.24	0.0042	0.955	3.12	0.51	0.41
R014-R013	R014	R013	15	403.57	0.0042	0.955	3.11	0.51	0.41
R015-R014	R015	R014	15	399.25	0.0047	0.955	3.26	0.50	0.40
R016-S001	R016	S001	8	346.96	0.0019	0.004	0.51	0.05	0.08
R017-R002	R017	R002	8	290.61	0.0024	0.077	1.33	0.20	0.30
R018-R017	R018	R017	8	283.74	0.0024	0.062	1.24	0.18	0.27
R019-R018	R019	R018	8	350.31	0.0024	0.008	0.68	0.07	0.10
R020-R019	R020	R019	8	294.36	0.0024	0.004	0.55	0.05	0.07
R021-R017	R021	R017	8	355.97	0.0024	0.013	0.79	0.09	0.13
R022-R021	R022	R021	8	346.07	0.0024	0.009	0.72	0.07	0.11
R023-R022	R023	R022	8	342.82	0.0024	0.005	0.58	0.05	0.08
R024-R018	R024	R018	8	260.63	0.0024	0.051	1.18	0.16	0.25
R025-R024	R025	R024	8	272.39	0.0024	0.028	0.99	0.12	0.18
R026-R025	R026	R025	8	278.88	0.0024	0.018	0.88	0.10	0.15
R027-R026	R027	R026	8	276.07	0.0024	0.007	0.64	0.06	0.09
R028-R027	R028	R027	8	274.36	0.0024	0.004	0.55	0.05	0.07
R029-R028	R029	R028	8	273.49	0.0024	0.004	0.54	0.05	0.07
R030-R029	R030	R029	8	272.90	0.0024	0.002	0.44	0.03	0.05
R031-R024	R031	R024	8	299.50	0.0027	0.021	0.95	0.10	0.15
R032-R031	R032	R031	8	302.97	0.0024	0.018	0.87	0.10	0.15
R033-R032	R033	R032	8	245.20	0.0029	0.014	0.86	0.08	0.12
R034-R033	R034	R033	8	47.27	0.0021	0.012	0.74	0.08	0.13
R035-R034	R035	R034	8	286.00	0.0023	0.006	0.62	0.06	0.09
R036-R035	R036	R035	8	273.43	0.0025	0.006	0.63	0.06	0.09
R037-R036	R037	R036	8	286.46	0.0024	0.003	0.49	0.04	0.06
R038-R025	R038	R025	8	275.78	0.0024	0.008	0.67	0.07	0.10
R039-R038	R039	R038	8	276.39	0.0024	0.006	0.62	0.06	0.09
R040-R039	R040	R039	8	270.05	0.0024	0.004	0.55	0.05	0.07
R041-R026	R041	R026	8	275.80	0.0024	0.010	0.73	0.07	0.11
R042-R041	R042	R041	8	273.71	0.0024	0.008	0.67	0.07	0.10
R043-R042	R043	R042	8	274.41	0.0024	0.004	0.54	0.05	0.07
R044-N038	R044	N038	10	242.49	0.0012	0.075	1.01	0.22	0.26
R045-R044	R045	R044	10	242.06	0.0012	0.071	0.99	0.21	0.26
R046-R045	R046	R045	10	267.37	0.0008	0.043	0.73	0.19	0.23
R047-R046	R047	R046	10	61.50	0.0013	0.033	0.81	0.14	0.17
R048-R047	R048	R047	10	233.14	0.0012	0.021	0.71	0.12	0.14
R049-R048	R049	R048	10	57.28	0.0012	0.011	0.58	0.09	0.10
R050-R049	R050	R049	10	220.48	0.0012	0.002	0.32	0.03	0.04
R051-R045	R051	R045	8	319.96	0.0024	0.026	0.97	0.12	0.17
R052-R051	R052	R051	8	309.16	0.0024	0.020	0.89	0.10	0.15
R053-R052	R053	R052	8	311.92	0.0024	0.014	0.81	0.09	0.13
R054-R053	R054	R053	8	316.77	0.0021	0.010	0.69	0.08	0.12
R055-R054	R055	R054	8	326.35	0.0024	0.004	0.55	0.05	0.07
R056-R055	R056	R055	8	271.45	0.0065	0.002	0.62	0.03	0.04
	1	1		2, 2, .,	2.0000	0.002	3.32	0.55	0.01

Model Results - Existing Peak Dry Weather Flow (PDWF) Scenario

	From	To	Diameter	Length	rveather rio	Flow	Velocity	Water Depth	
Pipe ID	ID	ID	(inches)	(feet)	Slope	(MGD)	(ft/s)	(feet)	d/D
R057-R051	R057	R051	8	203.40	0.0024	0.004	0.55	0.05	0.07
R058-R052	R058	R052	8	200.69	0.0029	0.004	0.59	0.05	0.07
R059-R053	R059	R053	8	200.67	0.0023	0.004	0.55	0.05	0.07
R060-R054	R060	R054	8	289.45	0.0214	0.004	1.17	0.03	0.04
R061-R083	R061	R083	8	345.01	0.0020	0.004	0.58	0.06	0.09
R062-R061	R062	R061	8	334.33	0.0020	0.006	0.58	0.06	0.09
R063-R087	R063	R087	8	178.43	0.0020	0.002	0.39	0.03	0.05
R064-R084	R064	R084	8	344.71	0.0020	0.002	0.65	0.07	0.03
R065-R064	R065	R064	8	335.34	0.0020	0.006	0.58	0.07	0.10
R066-R086	R066	R086	8	177.02	0.0020	0.000	0.38	0.00	0.05
R067-R048	R067	R048	8	348.37	0.0020	0.002	0.68	0.03	0.03
R068-R067	R068	R067	8	349.66	0.0020	0.010	0.63	0.08	0.11
	R069	R068	8	349.57		0.008	0.63		
R069-R068 R070-R069	R070	R069	8	351.74	0.0020	0.008	0.50	0.06 0.05	0.09 0.07
R070-R009	R071	R049	8	348.46	0.0020	0.003	0.50	0.03	0.07
							0.68	0.08	
R072-R071	R072	R071 R072	8	349.87	0.0020	0.008	0.54		0.10
R073-R072	R073			351.64	0.0020	0.006		0.06	0.09
R074-R073	R074	R073	8	348.30	0.0020	0.003	0.50	0.05	0.07
R076-R075	R076	R075	8	37.90	0.0676	0.014	2.57	0.04	0.06
R077-R076	R077	R076	8	438.48	0.0038	0.005	0.67	0.05	0.07
R078-R077	R078	R077	8	287.88	0.0056	0.003	0.69	0.04	0.05
R079-R078	R079	R078	8	198.96	0.0040	0.003	0.62	0.04	0.06
R080-R076	R080	R076	8	233.86	0.0047	0.008	0.86	0.06	0.08
R081-R080	R081	R080	8	280.29	0.0034	0.006	0.72	0.06	0.08
R082-R081	R082	R081	8	350.63	0.0040	0.002	0.54	0.03	0.05
R083-R046	R083	R046	8	324.60	0.0020	0.008	0.64	0.07	0.11
R084-R047	R084	R047	8	352.68	0.0020	0.010	0.68	0.08	0.11
R085-R007	R085	R007	8	359.08	0.0023	0.007	0.65	0.06	0.09
R086-R065	R086	R065	8	338.68	0.0020	0.003	0.50	0.05	0.07
R087-R062	R087	R062	8	339.00	0.0020	0.003	0.50	0.05	0.07
R088-R074	R088	R074	8	155.65	0.0019	0.001	0.35	0.03	0.04
R089-R070	R089	R070	8	153.82	0.0020	0.001	0.36	0.03	0.04
R801A-R801	R801A	R801	8	331.58	0.0024	0.101	1.44	0.23	0.35
R801-R800	R801	R800	8	13.72	0.4110	1.055	17.62	0.21	0.31
R802-R801A	R802	R801A	8	329.36	0.0024	0.101	1.44	0.23	0.35
R803-R801	R803	R801	15	15.39	0.0325	0.955	6.51	0.30	0.24
R804-R803	R804	R803	15	399.94	0.0042	0.955	3.12		
S001-W015	S001	W015	10	286.25	0.0022	0.005	0.56	0.05	0.06
S002-R015	S002	R015	15	226.30	0.0040	0.951	3.07	0.52	0.41
S003A-S003	S003A	S003	18	283.85	0.0017	0.827	2.13	0.56	0.37
S003-S002	S003	S002	18	228.18	0.0027	0.827	2.53	0.49	0.33
S004-S003A	S004	S003A	18	273.63	0.0030	0.796	2.60	0.47	0.31
S012-S002	S012	S002	10	330.72	0.0008	0.124	1.01	0.32	0.38
S013-S012	S013	S012	10	335.12	0.0010	0.120	1.07	0.30	0.35
S014-S013	S014	S013	10	319.75	0.0014	0.120	1.21	0.27	0.32
S015-S014	S015	S014	10	332.47	0.0016	0.102	1.21	0.24	0.29
S016-S015	S016	S015	10	325.11	0.0011	0.098	1.04	0.26	0.31
S017-S016	S017	S016	8	335.44	0.0025	0.007	0.66	0.06	0.09
S019-S018	S019	S018	8	121.45	0.0023	0.011	0.73	0.08	0.12
S020-S019	S020	S019	8	319.84	0.0024	0.008	0.67	0.07	0.10
S021-S812	S021	S812	8	332.92	0.0022	0.042	1.09	0.15	0.23
S022-S021	S022	S021	8	320.66	0.0018	0.029	0.91	0.13	0.20
S023-S022	S023	S022	8	319.57	0.0023	0.011	0.74	0.08	0.12
S024-S023	S024	S023	8	180.13	0.0018	0.005	0.55	0.06	0.09
S025-S022	S025	S022	8	327.51	0.0031	0.010	0.80	0.07	0.11
S026-S025	S026	S025	8	265.04	0.0325	0.004	1.41	0.03	0.04

Model Results - Existing Peak Dry Weather Flow (PDWF) Scenario

Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
Pipe ID	ID	ID	(inches)	(feet)	Siope	(MGD)	(ft/s)	(feet)	u/υ
S027-S030	S027	S030	8	300.57	0.0045	0.004	0.70	0.04	0.06
S029-S014	S029	S014	8	288.81	0.0093	0.013	1.27	0.06	0.09
S030-S021	S030	S021	8	239.80	0.0022	0.005	0.59	0.06	0.09
S811-S016	S811	S016	8	320.57	0.0023	0.084	1.33	0.21	0.32
S812-S811	S812	S811	8	318.28	0.0018	0.082	1.23	0.23	0.34
S813-S812	S813	S812	8	334.70	0.0030	0.013	0.85	0.08	0.12
S814-S813	S814	S813	8	305.88	0.0024	0.007	0.66	0.06	0.10
S815-S814	S815	S814	8	17.31	0.0480	0.007	1.88	0.03	0.05
S817-S812	S817	S812	8	324.55	0.0020	0.021	0.85	0.11	0.16
S818-S817	S818	S817	8	249.78	0.0012	0.001	0.30	0.03	0.05
S819-S818	S819	S818	8	21.21	0.0009	0.001	0.28	0.03	0.05
S820-S817	S820	S817	8	328.59	0.0043	0.013	0.96	0.07	0.11
V001-V800	V001	V800	21	321.67	0.0033	0.159	1.64	0.20	0.11
V002-OC03	V002	OC03	8	40.60	0.2098	0.157	7.96	0.09	0.14
V003-V002	V003	V002	8	7.81	0.0077	0.117	2.27	0.19	0.28
V004-V002	V004	V002	8	252.13	0.0070	0.039	1.59	0.11	0.17
V004-V003	V004	V003	8	226.01	0.0020	0.117	1.41	0.26	0.40
V005-V004	V005	V004	8	377.67	0.0020	0.129	1.43	0.28	0.42
V006-V005	V006	V005	8	375.04	0.0020	0.125	1.42	0.28	0.41
V007-V006	V007	V006	8	275.46	0.0020	0.095	1.33	0.24	0.36
V008-V007	V008	V007	8	269.33	0.0020	0.087	1.30	0.23	0.34
V009-V008	V009	V008	8	269.11	0.0020	0.077	1.24	0.21	0.32
V010-V009	V010	V009	8	272.90	0.0016	0.013	0.69	0.09	0.14
V011-V010	V011	V010	8	241.98	0.0024	0.009	0.70	0.07	0.10
V012-V004	V012	V004	8	204.18	0.0079	0.025	1.45	0.09	0.13
V013-V012	V013	V012	8	202.31	0.0021	0.021	0.87	0.11	0.17
V014-V013	V014	V013	8	378.25	0.0020	0.013	0.73	0.09	0.13
V015-V014	V015	V014	8	347.44	0.0020	0.007	0.60	0.06	0.10
V016-V015	V016	V015	8	227.75	0.0015	0.005	0.51	0.06	0.09
V017-V016	V017	V016	8	237.50	0.0020	0.005	0.56	0.06	0.08
V018-V006	V018	V006	8	278.45	0.0023	0.025	0.95	0.12	0.18
V019-V018	V019	V018	8	273.69	0.0020	0.023	0.88	0.12	0.17
V020-V019	V020	V019	8	286.67	0.0020	0.020	0.84	0.11	0.16
V021-V020	V021	V020	8	107.40	0.0117	0.002	0.73	0.02	0.03
V022-V007	V022	V007	8	391.45	0.0020	0.006	0.59	0.06	0.09
V023-V022	V023	V022	8	388.78	0.0020	0.003	0.46	0.04	0.06
V024-V009	V024	V009	8	334.89	0.0020	0.062	1.17	0.19	0.29
V025-V010	V025	V010	8	213.17	0.0024	0.003	0.52	0.04	0.06
V027-OC07	V027	OC07	8	363.13	0.0181	0.005	1.17	0.03	0.05
V028-V027	V028	V027	8	392.19	0.0021	0.000	0.00	0.00	0.00
V029-OC04	V029	OC04	8	17.31	0.2899	0.119	8.22	0.08	0.12
V030-V029	V030	V029	8	169.97	0.0125	0.080	2.42	0.14	0.20
V031-V030	V031	V030	8	301.99	0.0020	0.045	1.07	0.16	0.24
V032-V031	V032	V031	8	525.05	0.0022	0.022	0.90		0.17
V033-V013	V033	V013	8	197.00	0.0023	0.005	0.59	0.05	0.08
V034-V033	V034	V033	8	198.55	0.0020	0.004	0.53	0.05	0.08
V035-V014	V035	V014	8	183.83	0.0026	0.004	0.55	0.04	0.07
V036-V020	V036	V020	8	279.62	0.0024	0.015	0.82	0.09	0.14
V800-Y812	V800	Y812	21	671.98	0.0016	0.159	1.26	0.24	0.14
V804-V008	V804	V008	8	392.85	0.0044	0.008	0.85	0.06	0.09
V806-V024	V806	V024	8	367.22	0.0045	0.059	1.54	0.15	0.23
V808-V806	V808	V806	8	158.48	0.0080	0.027	1.49	0.09	0.13
V809A-V808	V809A	V808	8	295.92	0.0030	0.027	1.06	0.11	0.17
V809-V809A	V809	V809A	8	18.49	0.0465	0.027	2.77	0.06	0.09
V812-V809	V812	V809	8	204.71	0.0027	0.027	1.02	0.12	0.17
V813-V812	V813	V812	8	381.88	0.0040	0.022	1.11	0.10	0.14

Model Results - Existing Peak Dry Weather Flow (PDWF) Scenario

	From	То	Diameter	Length	Teather 110	Flow	Velocity	Water Depth	
Pipe ID	ID	ID	(inches)	(feet)	Slope	(MGD)	(ft/s)	(feet)	d/D
W002-OC09	W002	OC09	8	104.09	0.0549	0.258	5.74	0.17	0.25
W003-W002	W003	W002	8	363.56	0.0020	0.256	1.69	0.42	0.64
W004-W003	W004	W003	8	359.52	0.0020	0.247	1.68	0.41	0.62
W005-W004	W005	W004	8	338.50	0.0020	0.247	1.68	0.41	0.62
W006-OC09	W006	OC09	10	335.95	0.0017	0.317	1.69	0.44	0.53
W007-W006	W007	W006	10	328.62	0.0016	0.309	1.66	0.43	0.52
W008-W007	W008	W007	10	332.15	0.0016	0.303	1.62	0.44	0.52
W010-W008	W010	W008	8	164.00	0.0048	0.058	1.56	0.15	0.22
W011-W010	W011	W010	10	172.33	0.0031	0.053	1.27	0.15	0.18
W012-W011	W012	W011	10	336.40	0.0016	0.053	1.01	0.17	0.21
W013A-W013	W013A	W013	8	339.38	0.0020	0.032	0.96	0.14	0.20
W013-W012	W013	W012	10	245.70	0.0016	0.041	0.94	0.15	0.18
W014-W013	W014	W013	10	85.39	0.0016	0.009	0.61	0.07	0.09
W015-W014	W015	W014	10	333.82	0.0016	0.009	0.60	0.07	0.09
W016-W008	W016	W008	8	315.15	0.0096	0.075	2.16	0.14	0.21
W017-W016	W017	W016	8	191.32	0.0035	0.069	1.47	0.17	0.26
W018-W017	W018	W017	8	138.34	0.0038	0.066	1.50	0.17	0.25
W019-W018	W019	W018	8	144.93	0.0020	0.061	1.16	0.19	0.28
W020-W019	W020	W019	8	282.09	0.0021	0.036	1.02	0.14	0.21
W021-W020	W021	W020	8	316.64	0.0019	0.019	0.81	0.11	0.16
W022-W021	W022	W021	8	175.83	0.0021	0.009	0.66	0.07	0.11
W023-W019	W023	W019	8	297.30	0.0020	0.011	0.70	0.08	0.12
W024-W023	W024	W023	8	269.07	0.0020	0.006	0.59	0.06	0.09
W025-W024	W025	W024	8	296.38	0.0020	0.003	0.47	0.04	0.06
W026-W024	W026	W024	8	133.78	0.0027	0.003	0.54	0.04	0.06
W027-W009	W027	W009	8	306.80	0.0023	0.170	1.63	0.31	0.47
W028-W027	W028	W027	8	307.72	0.0020	0.168	1.53	0.33	0.49
W029-W028	W029	W028	8	182.55	0.0051	0.168	2.16	0.25	0.38
W030-W029	W030	W029	8	77.43	0.0021	0.015	0.77	0.09	0.14
W031-W030	W031	W030	8	280.12	0.0020	0.013	0.73	0.09	0.13
W032-W031	W032	W031	8	329.52	0.0020	0.009	0.67	0.07	0.11
W033-W032	W033	W032	8	233.99	0.0020	0.007	0.62	0.07	0.10
W034-W033	W034	W033	8	330.81	0.0020	0.004	0.51	0.05	0.07
W035-W034	W035	W034	8	66.47	0.0022	0.002	0.43	0.04	0.05
W036-W034	W036	W034	8	83.81	0.0020	0.002	0.41	0.03	0.05
W037-W029	W037	W029	8	140.65	0.0022	0.152	1.56	0.30	0.45
W038-W037	W038	W037	8	276.97	0.0020	0.095	1.32	0.24	0.36
W039-W038	W039	W038	8	273.40	0.0020	0.095	1.32	0.24	0.35
W040-W039	W040	W039	8	372.46	0.0020	0.089	1.29	0.23	0.34
W041-W040	W041	W040	8	247.19	0.0020	0.081	1.26	0.22	0.33
W042-W041	W042	W041	8	300.53	0.0020	0.079	1.25	0.22	0.32
W043-W042	W043	W042	8	108.50	0.0369	0.079	3.52	0.10	0.16
W044-W039	W044	W039	8	190.68	0.0039	0.003	0.59	0.04	0.05
W045-W040	W045	W040	8	147.93	0.0020	0.005	0.55	0.05	0.08
W046-W045	W046	W045	8	236.00	0.0020	0.004	0.51	0.05	0.07
W047-W037	W047	W037	8	176.63	0.0020	0.055	1.13	0.18	0.27
W048-W047	W048	W047	8	346.48	0.0020	0.053	1.13	0.18	0.26
W049-W048	W049	W048	8	347.76	0.0020	0.050	1.10	0.17	0.26
W050-W049	W050	W049	8	201.18	0.0020	0.009	0.67	0.07	0.11
W051-W050	W051	W050	8	295.25	0.0020	0.008	0.63	0.07	0.10
W052-W051	W052	W051	8	291.54	0.0020	0.004	0.53	0.05	0.08
W053-W052	W053	W052	8	82.71	0.0031	0.001	0.42	0.03	0.04
W054-W049	W054	W049	8	134.84	0.0045	0.037	1.35	0.12	0.18
W055-W054	W055	W054	8	350.69	0.0023	0.025	0.94	0.12	0.18
W056-W055	W056	W055	8	300.89	0.0027	0.007	0.68	0.06	0.09
W056-W057	W056	W057	8	300.86	0.0024	0.007	0.65	0.06	0.09

Model Results - Existing Peak Dry Weather Flow (PDWF) Scenario

	From	То	Diameter	Length		Flow	Velocity	Water Depth	
Pipe ID	ID	ID	(inches)	(feet)	Slope	(MGD)	(ft/s)	(feet)	d/D
Y001-Y806	Y001	Y802	8	323.27	0.0258	0.012	1.77	0.05	0.07
Y002-Y022	Y002	Y022	8	186.17	0.0047	0.012	0.98	0.07	0.10
Y003-Y002	Y003	Y002	8	129.16	0.0054	0.012	1.03	0.07	0.10
Y004-Y003	Y004	Y003	8	203.18	0.0053	0.012	1.02	0.07	0.10
Y005-Y806	Y005	Y806	8	337.49	0.0027	0.125	1.58	0.25	0.38
Y006-Y005	Y006	Y005	8	339.60	0.0028	0.125	1.61	0.25	0.38
Y007-Y006	Y007	Y006	8	150.72	0.0029	0.107	1.56	0.23	0.34
Y008-Y007	Y008	Y007	8	186.66	0.0030	0.090	1.51	0.21	0.31
Y009-Y008	Y009	Y008	8	225.62	0.0035	0.090	1.58	0.20	0.30
Y010-Y009	Y010	Y009	8	101.96	0.0029	0.029	1.08	0.12	0.18
Y011-Y010	Y011	Y010	8	204.62	0.0029	0.029	1.08	0.12	0.18
Y012-Y011	Y012	Y011	8	140.10	0.0031	0.029	1.09	0.12	0.18
Y013-Y810	Y013	Y810	8	362.09	0.0031	0.042	1.22	0.14	0.21
Y014-Y013	Y014	Y013	8	345.76	0.0036	0.025	1.11	0.11	0.16
Y015-V030	Y015	V030	8	208.01	0.0202	0.014	1.70	0.05	0.08
Y016-Y015	Y016	Y015	8	218.23	0.0024	0.009	0.71	0.07	0.11
Y017-V031	Y017	V031	8	217.44	0.0075	0.013	1.17	0.06	0.10
Y018-Y017	Y018	Y017	8	207.25	0.0016	0.010	0.64	0.08	0.12
Y019-V032	Y019	V032	8	442.51	0.0074	0.013	1.18	0.07	0.10
Y020-V029	Y020	V032	8	25.90	0.0981	0.039	4.03	0.06	0.09
Y021-Y019	Y021	Y019	8	36.84	0.0312	0.006	1.52	0.03	0.05
Y022-Y001	Y022	Y001	8	86.46	0.0063	0.012	1.08	0.06	0.03
Y023-Y810	Y023	Y810	8	273.34	0.0003	0.000	0.00	0.00	0.00
Y024-Y014	Y024	Y014	8	296.48	0.0018	0.005	1.08	0.00	0.16
Y810-Y808	Y810	Y808	8	326.58	0.0033	0.023	1.26	0.11	0.10
Y811-Y809	Y811	Y809	12	148.65	0.0020	0.051	1.70	0.17	0.23
Z001-Z831	Z001	Z831	8	91.85	0.0078	0.031	2.08	0.11	0.11
Z001-Z031 Z002A-Z831	Z001 Z002A	Z831	10	394.36	0.0072	0.094	1.44	0.17	0.23
	1	+			0.0030	0.084		0.19	
Z002-Z001	Z002	Z001	8	301.97			1.24		0.37
Z003-Z002	Z003	Z002		62.09	0.0027	0.081	1.41	0.20	0.30
Z004-Z002A	Z004 Z004	Z002A	10	319.44	0.0020	0.084	1.25	0.20 0.20	0.25
Z004-Z003		Z003	8	251.02	0.0019	0.069	1.18		0.31
Z005-Z004	Z005	Z004	8	287.84	0.0020	0.051	1.10	0.17	0.26
Z006-Z005	Z006	Z005	8	273.44	0.0021	0.047	1.09	0.16	0.25
Z007-Z029	Z007	Z029	8	230.35	0.0020	0.023	0.88	0.12	0.18
Z008-Z007	Z008	Z007	8	357.48	0.0022	0.023	0.91	0.11	0.17
Z009-Z008	Z009	Z008	8	223.11	0.0021	0.011	0.70		0.12
Z010-Z009	Z010	Z009	8	112.84	0.0039	0.000	0.00	0.00	0.00
Z011-Z010	Z011	Z010	8	425.76	0.0040	0.000	0.00	0.00	0.00
Z012-Z011	Z012	Z011	8	18.21	0.0033	0.000	0.00	0.00	0.00
Z015-Z028	Z015	Z028	12	153.83	0.0026	0.051	1.16		0.14
Z016-Z800	Z016	Z800	8	303.39	0.0045	0.056	1.51	0.15	0.22
Z017-Z016	Z017	Z016	8	290.36	0.0003	0.004	0.28		0.12
Z018-Z004	Z018	Z004	8	333.81	0.0020	0.102	1.33		0.37
Z019-Z018	Z019	Z018	8	355.97	0.0023	0.064	1.24		0.28
Z020-Z019	Z020	Z019	8	289.86	0.0020	0.060	1.16		0.28
Z021-Z022	Z021	Z022	8	221.72	0.0020	0.030	0.95	0.13	0.20
Z022-Z023	Z022	Z023	8	217.99	0.0015	0.034	0.89	0.15	0.22
Z023-Z024	Z023	Z024	12	22.53	0.0044	0.034	1.23	0.10	0.10
Z024-Z015	Z024	Z015	12	145.53	0.0027	0.045	1.13	0.13	0.13
Z025-Z015	Z025	Z015	6	69.07	0.0012	0.006	0.50	0.07	0.15
Z026-Z025	Z026	Z025	6	361.94	0.0012	0.006	0.50	0.07	0.15
Z029-Z021	Z029	Z021	8	230.68	0.0020	0.023	0.88	0.12	0.18
Z029-Z030	Z028	Z030	12	129.23	0.0027	0.051	1.18	0.14	0.14
Z030-Z031	Z030	Z031	12	165.25	0.0209	0.051	2.40	0.09	0.09
Z031-Y811	Z031	Y811	12	241.87	0.0073	0.051	1.66	0.11	0.11

Model Results - Existing Peak Wet Weather Flow (PWWF) Scenario

			l Results - Existii		veatner Fio				
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
B001-C001	B001	C001	10	279.79	0.0012	0.070	0.99	0.21	0.25
B002-B001	B002	B001	10	135.29	0.0012	0.064	0.96	0.20	0.25
B003-B002	B003	B002	10	122.75	0.0012	0.060	0.95	0.20	0.23
B004-B003	B004	B003	10	137.42	0.0012	0.045	0.88	0.17	0.20
B005-B004	B005	B004	10	131.33	0.0012	0.029	0.77	0.14	0.16
B006-B005	B006	B005	10	127.26	0.0012	0.022	0.70	0.12	0.14
B007-B006	B007	B006	10	259.35	0.0012	0.008	0.52	0.07	0.09
B008-B007	B008	B007	8	269.59	0.0026	0.008	0.70	0.06	0.10
B009-B008	B009	B008	8	259.91	0.0020	0.004	0.53	0.05	0.08
B010-B009	B010	B009	8	89.19	0.0020	0.001	0.35	0.03	0.04
B011-B006	B011	B006	8	270.78	0.0019	0.008	0.64	0.07	0.11
B012-B011	B012	B011	8	260.24	0.0020	0.005	0.55	0.06	0.08
B013-B012	B013	B012	8	200.15	0.0020	0.002	0.39	0.03	0.05
B013-B012	B013	B004	8	270.76	0.0020	0.002	0.78	0.03	0.03
B014-B004 B015-B014	B015	B014	8	261.26	0.0020	0.010	0.73	0.10	0.14
		B014	8	214.26	0.0020	0.012	0.60	0.05	
B016-B015 B017-B016	B016 B017	B015	8	198.07	0.0024	0.003	0.60	0.05	0.08
B017-B010 B018-B015	B017	B015	8	179.03	0.0020	0.004	0.31	0.03	0.07
	1								
B019-H022	B019	H022	10	176.55	0.0020	0.181	1.56	0.30	0.36
B020-B045	B020	B045	8	273.36	0.0032	0.162	1.81	0.28	0.42
B021-B020	B021	B020	8	327.92	0.0032	0.141	1.75	0.26	0.39
B022-B021	B022	B021	8	124.17	0.0038	0.047	1.36	0.14	0.21
B023-B022	B023	B022	8	192.07	0.0041	0.027	1.19	0.11	0.16
B024-B023	B024	B023	8	65.73	0.0037	0.007	0.75	0.06	0.08
B025-B024	B025	B024	8	243.62	0.0040	0.006	0.74	0.05	80.0
B026A-B026	B026A	B026	8	48.20	0.0027	0.004	0.57	0.05	0.07
B026-B025	B026	B025	8	17.74	0.0034	0.004	0.62	0.04	0.07
B028-B022	B028	B022	8	262.11	0.0072	0.020	1.32	0.08	0.12
B029-B028	B029	B028	8	207.80	0.0040	0.008	0.80	0.06	0.09
B030-B029	B030	B029	8	214.83	0.0040	0.005	0.72	0.05	0.07
B031-B028	B031	B028	8	259.05	0.0048	0.010	0.94	0.06	0.10
B032-B031	B032	B031	8	255.69	0.0042	0.008 0.004	0.82	0.06	0.09
B033-B032	B033	B032	8	249.92	0.0040		0.66	0.04	0.06
B034-C017	B034	C017	8	292.13	0.0023	0.022	0.90	0.11	0.16
B035-B034	B035	B034	8	255.96	0.0020	0.012	0.72	0.08	0.13
B036-B035	B036	B035	8	349.45	0.0020	0.005	0.56	0.06	0.09
B037-B034	B037	B034	8	355.71	0.0027	0.008	0.70	0.06	0.10
B038-B035 B039-B002	B038 B039	B035 B002	8	166.70 241.67	0.0024	0.004 0.005	0.57 0.54	0.05 0.06	0.07
									0.08
B040-B039	B040	B039	8	97.74 261.62	0.0024	0.001	0.40	0.03	0.04
B041-B019 B045-B019	B041 B045	B019 B019	10 8	55.20	0.0034 0.0011	0.016 0.165	0.93 1.21	0.08	0.10 0.58
C001-I017A	C001	I017A	15	299.35	0.0011	0.103	1.21	0.58	0.38
C001-1017A	C001	C003	8	248.27	0.0013	0.033	1.33	0.05	0.40
C002-C005	C002	C005	8	352.17	0.0131	0.010	1.36	0.03	0.08
C003-C003		C058	12	10.63	0.0024	0.000	0.00	0.00	
	C004	1044							0.00
C004-1044	C004	+	12	338.54	0.0020	0.232	1.65	0.32	0.32
C005-C004	C005	C004	8	350.88	0.0024	0.085	1.37	0.21	0.32
C006-C004	C006	C004	12	338.27	0.0040	0.135	1.80	0.21	0.21
C007-I102	C007	1102	18	315.96	0.0015	1.697	2.46	0.87	0.58
C008-C007	C008	C007	15	611.45	0.0026	1.697	3.00	0.84	0.67
C009-C008	C009	C008	15	16.65	0.0024	1.697	2.46	0.56	0.45
C010-D012	C010	D012	8	291.77	0.0049	0.038	1.39	0.12	0.18
C011-C010	C011	C010	8	299.80	0.0048	0.031	1.30	0.11	0.16
C012A-C001	C012A	C001	12	236.19	0.0012	0.256	1.40	0.39	0.39
C012-C001	C012	C001	12	261.24	0.0015	0.359	1.66	0.44	0.44

Model Results - Existing Peak Wet Weather Flow (PWWF) Scenario

	From		Diameter		vvedener rie			Water Donth	
Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
C0424 C0424	ID	ID	(inches)	(feet)	0.004.0	(MGD)	(ft/s)	(feet)	0.55
C013A-C012A	C013A	C012A	10	274.22	0.0010		1.29	0.46	0.55
C013-C012	C013	C012	12	240.25	0.0013		1.55	0.46	0.46
C014-C013	C014	C013	12	130.42	0.0015		1.67	0.43	0.43
C015-C014	C015	C014	12	153.36	0.0015	0.352	1.66	0.44	0.44
C016-C015	C016	C015	12	185.94	0.0015		1.66	0.44	0.44
C017-C016	C017	C016	12	220.85	0.0015		1.65	0.44	0.44
C019-C013A	C019	C013A	8	328.40	0.0116		2.16	0.12	0.18
C020-C019	C020	C019	8	252.66	0.0137		1.17	0.04	0.06
C021-C019	C021	C019	8	240.65	0.0040		1.31	0.13	0.19
C022-C021	C022	C021	8	151.67	0.0039		1.25	0.12	0.18
C023-C022	C023	C022	8	164.99	0.0089		0.94	0.04	0.06
C024-C022	C024	C022	8	227.08	0.0040		1.16	0.10	0.16
C026-C013A	C026	C013A	12	285.83	0.0011	0.196	1.24	0.35	0.35
C027-C026	C027	C026	8	244.16	0.0043	0.188	2.10	0.28	0.42
C028-C027	C028	C027	8	262.35	0.0040	0.168	1.98	0.27	0.40
C029-C028	C029	C028	8	263.41	0.0040	0.134	1.86	0.24	0.36
C030-C029	C030	C029	8	257.33	0.0035	0.072	1.49	0.18	0.27
C031-C030	C031	C030	8	43.34	0.1324	0.068	5.27	0.07	0.11
C032-C031	C032	C031	8	143.13	0.0037	0.058	1.43	0.16	0.24
C033-C032	C033	C032	8	109.37	0.0038	0.058	1.44	0.16	0.23
C034-C033	C034	C033	8	172.49	0.0035	0.056	1.38	0.16	0.24
C035-C034	C035	C034	8	166.57	0.0036	0.053	1.38	0.15	0.23
C036-C035	C036	C035	8	237.82	0.0037	0.043	1.31	0.14	0.20
C037-C026	C037	C026	10	210.25	0.0017	0.008	0.58	0.07	0.08
C038-C027	C038	C027	8	268.21	0.0035	0.018	1.00	0.09	0.13
C039-C028	C039	C028	8	265.19	0.0036	0.032	1.19	0.12	0.18
C040-C029	C040	C029	8	271.91	0.0027	0.057	1.28	0.17	0.25
C041-C031	C041	C031	8	329.44	0.0056	0.009	0.95	0.06	0.09
C042-C041	C042	C041	8	149.57	0.0067	0.004	0.81	0.04	0.06
C043-C029	C043	C029	8	251.52	0.0084	0.003	0.81	0.03	0.05
C044-C030	C044	C030	8	211.72	0.0100	0.005	0.95	0.04	0.06
C045-C035	C045	C035	8	204.04	0.0064	0.008	0.94	0.05	0.08
C046-C047	C046	C047	8	308.01	0.0015	0.030	0.86	0.14	0.21
C047-C048	C047	C048	8	39.28	0.0214	0.044	2.45	0.09	0.13
C048-D014	C048	D014	8	348.69	0.0024	0.044	1.13	0.15	0.23
C049-C045	C049	C045	8	40.09	0.0055	0.006	0.82	0.05	0.07
C051-C011	C051	C011	8	156.72	0.0047	0.011	0.94	0.07	0.10
C052-C024	C052	C024	8	241.48	0.0039		0.98	0.08	0.12
C053-C052	C053	C052	8	295.90	0.0072		1.00	0.05	0.08
C054-C052	C054	C052	8	141.95	0.0039	0.003	0.60	0.04	0.06
C055-C024	C055	C024	8	139.43	0.0040	0.006	0.74	0.05	0.08
C056-C046	C056	C046	8	184.19	0.0005	0.010	0.41	0.11	0.16
C057-I051	C057	1051	12	314.01	0.0023	0.003	0.49	0.04	0.04
C058-C057	C058	C057	12	8.29	0.0084	0.000	0.00	0.00	0.00
C800-C017	C800	C017	12	113.47	0.0015		1.62	0.42	0.42
C806-C037	C806	C037	8	324.10	0.0013		0.52	0.07	0.11
C809-C038	C809	C038	8	265.63	0.0037		0.94	0.08	0.12
C812-C039	C812	C039	8	267.35	0.0036		1.15	0.11	0.17
C813-C040	C813	C040	8	263.35	0.0029		1.27	0.16	0.24
D001-C006	D001	C006	12	304.59	0.0040		1.75	0.20	0.20
D002-D090	D002	D090	10	83.50	0.0020		0.00	0.00	0.00
D003-D002	D003	D002	10	254.66	0.0020		0.00	0.00	0.00
D004-D091	D004	D091	10	260.32	0.0022		1.63	0.31	0.38
D005-D004	D005	D004	10	330.67	0.0021		1.62	0.31	0.38
D006-D005	D006	D005	10	342.70	0.0021		1.58	0.32	0.38
D007-D006	D007	D006	10	329.85	0.0020		0.82	0.10	0.12
	1	1		525.05	5.5020	3.020	0.02	0.10	3.12

Model Results - Existing Peak Wet Weather Flow (PWWF) Scenario

D009-D008 D009 D008 10 33.47 D0021 D0.03 D.48 D.04 D0.0 D010-D009 D010 D009 D010 D009 D010 D009 D010 D009 D010 D009 D010 D009 D010 D011 D013 D012 D013 D014 D013 D014 D013 D014 D013 D014 D013 D014 D015 D016 D01				Results - Existii		veatner Fio				
DOIS-DOOPS DOOPS DOOPS 10	Pipe ID				•	Slope	_	•		d/D
D011-D009 D010 D009 10 332.49 D0020 D.03 D.47 D.04 D.0 D011-D001 D011 D001 10 291.10 D0025 D.013 D.77 D.08 D.0 D012-D011 D012 D011 10 286.24 D.0025 D.000 D.00 D.00 D.0 D012-D013 D012 D013 D013 D014 D015 D016 D016	D008-D007		D007			0.0019			•	0.12
D011-D001 D012 D011 D002 D013 D077 D08 D00 D012-D013 D012 D011 D012 D011 D022 D029 D022	D009-D008	D009	D008	10	183.07	0.0021	0.003	0.48	0.04	0.05
D012-D011 D012 D011 10 286.24 D0025 D000 D00 D00 D00 D01 D012-D018 D012 D018 D012 D018 D012 D013 D012 D013 D012 D013 D012 D013 D012 D014 D013 D014 D013 D014 D015 D016	D010-D009	D010	D009	10	332.49	0.0020	0.003	0.47	0.04	0.05
D012-D012 D013 D012 D013 D012 D014 D013 D014 D013 D012 D014 D013 D014 D013 D014 D013 D014 D013 D014 D013 D014 D015 D014 D015 D014 D015 D014 D015 D014 D015 D014 D015 D0	D011-D001	D011	D001	10	291.10	0.0025	0.013	0.77	0.08	0.09
D013-D012 D013 D014 D013 10 248.54 D.0025 D.0058 1.27 D.18 D.2 D015-D014 D015 D014 D015 D014 D015 D014 D015 D014 D015 D014 D015 D014 D015 D016 D016 D015 D016 D016 D015 D016 D	D012-D011	D012	D011	10	286.24	0.0025	0.000	0.00	0.00	0.00
D014-D013 D014	D012-D098	D012	D098	10	293.36	0.0036	0.111	1.66	0.20	0.24
D015-D014 D015 D014 D015 10 227.62 D.0025 D.013 D.86 D.09 D.1	D013-D012	D013	D012	10	248.54	0.0026	0.071	1.30	0.18	0.21
D015-D014 D015 D014 D015 10 227.62 D.0025 D.013 D.86 D.09 D.1	D014-D013	D014	D013	10	247.66	0.0025	0.068	1.27	0.18	0.21
D016-D015 D016 D015 D018 D031 15				10	·					0.11
D018-D021 D018 D020 D018 15 395.03 0.0020 0.947 2.38 0.63 0.55 0.0021-D020 D021 D020 D018 15 395.03 0.0020 0.947 2.38 0.63 0.55 0.0024-D020 D021 D020 D021 15 434.75 0.0018 0.944 2.29 0.64 0.5 0.0024-D021 D022 D021 15 388.37 0.0067 0.803 3.57 0.46 0.4 0.0022-D021 D022 D021 15 388.37 0.0018 0.944 2.29 0.64 0.4 0.0022-D021 D022 D021 15 388.37 0.0021 0.933 2.42 0.61 0.4 0.0022-D021 D022 D021 D15 388.37 0.0021 0.933 2.42 0.61 0.4 0.0022-D021 D024 D023 D016 8 D07.86 0.0045 0.009 0.89 0.06 0.0 0.0024-D023 D024 D023 D025 D022 8 24.54 0.1663 0.126 6.88 0.09 0.1 0.0025-D022 D025 D022 8 24.54 0.1663 0.126 6.88 0.09 0.1 0.0025-D022 D025 D025 D025 8 255.56 D0026 D025 D026 D027 D027		D016	D015	10				0.79		0.10
DOZ-0018	D018-D031							1.90		0.61
D022+D022		D020		15						0.50
D022+D021 D022 D021 15 388.37 0.0021 0.933 2.42 0.61 0.4 D023+D016 D023 D016 8 107.86 0.0045 0.009 0.89 0.06 0.0 D024+D023 D024 D023 10 325.46 0.0020 0.009 0.64 0.07 0.0 D024+D023 D025 D022 8 24.54 0.1663 0.126 6.88 0.09 0.1 D025-D023 D025 D023 8 12.47 0.0024 0.000 0.00 0.00 0.0 D026-D025 D026 D025 8 255.56 0.0026 0.126 1.57 0.26 0.3 D0276-D026 D027A D026 B 79.62 0.0099 0.122 2.22 2.00 0.2 D027-D027A D026 D027A D026 8 79.62 0.0099 0.122 2.22 2.00 0.2 D027-D027A D027 D027A B 169.81 0.0032 0.122 1.67 0.24 0.3 D028-D027 D028 D027 8 218.28 0.0041 0.105 1.76 0.21 0.3 D029-D028 D029 D028 8 123.60 0.0024 0.084 1.36 0.21 0.3 D030-D029 D030 D029 8 273.60 0.0024 0.084 1.36 0.21 0.3 D031-C009 D031 C009 15 118.99 0.0075 1.697 4.49 0.60 0.4 D033-D031 D032 D033 D032 12 248.97 0.0020 0.465 1.98 0.47 0.4 D034-D035 D036 D035 D034 12 331.40 0.0021 0.465 2.00 0.47 0.4 D035-D034 D035 D036 D039 8 12 340.84 0.0020 0.465 1.98 0.47 0.4 D037-D038 D039 D038 8 223.65 0.0020 0.465 1.98 0.47 0.4 D037-D038 D039 D038 8 223.98 0.0040 0.066 1.53 0.16 0.2 D039-D038 D039 D038 8 223.98 0.0040 0.066 1.53 0.16 0.2 D039-D039 D040 D039 8 217.89 0.0020 0.465 1.98 0.47 0.4 D039-D039 D030 D039 8 217.89 0.0020 0.465 1.98 0.47 0.4 D039-D039 D030 D039 8 217.89 0.0020 0.465 1.98 0.47 0.4 D039-D039 D030 D039 8 217.89 0.0020 0.465 1.98 0.47 0.4 D039-D039 D030 D039 8 217.89 0.0020 0.465 1.98 0.47 0.4 D039-D039 D030 D039 8 217.49 0.0020 0.455 1.98 0.47 0.4 D039-D039 D030 D039 8 200.003 0.003 0.003 0.003 1.22 0.13 0.10 D040-D039 D040			1							0.52
D022-D021 D022 D021 15 388.37 D.0021 D.933 2.42 D.61 D.4 D023-D016 D023 D016 8 D0786 D.0045 D.009 D.89 D.06 D.0 D.0 D024-D023 D024 D023 D024 D023 D024 D023 D025 D022 R S.5.46 D.0026 D.009 D.08 D.06 D.0 D.0 D025-D022 D025 D022 R Z.5.44 D.1663 D.126 6.88 D.09 D.1 D025-D023 D025 D023 R T.2.47 D.0024 D.000 D.00 D.0 D025-D025 D026 D025 R Z.5.556 D.0026 D.126 D.157 D.26 D.3 D027-D026 D027-D027 D026 D025 R Z.5.556 D.0026 D.126 D.157 D.26 D.3 D027-D026 D027-D027 D027-D027 D027-D027 D027-D027 D027-D027 D027-D027 D027-D027 D027-D027 R T.098-D027 D028 D027 R T.098-D027 D028-D027 D028 D029 D028 R T.098-D027 D028-D027 D028 D029 D028 R T.098-D027 D029-D028 D029 D028 R T.098-D027 D029-D028 D029 D028 R T.098-D029 D029 D029 R Z.73.60 D.0024 D.084 T.36 D.21 D.0029-D028 D029 D029 R Z.73.60 D.0024 D.084 T.36 D.21 D.0029-D028 D029 D031 D039-D031 D039-D031 D039-D031 D039-D031 D039-D031 D039-D031 D039-D031 D039-D031 D039-D031 D039-D039 D039										0.46
D023-D016 D023 D016 8										0.49
DO24-DO23 DO24 DO25 DO25 S			1		·					0.09
D025-D022 D025 D022 8	-									0.08
DO25-DO23 DO25 DO26 DO25 DO25 B 12.47 0.0024 0.000 0.00 0.00 0.00 DO27A-DO26 DO25 8 255.56 0.0026 0.126 1.57 0.26 0.3 DO27A-DO27A DO27 DO27A 8 169.81 0.0032 0.122 1.67 0.24 0.3 DO28-DO27 DO28 8 218.28 0.0041 0.105 1.76 0.24 0.3 DO29-DO28 DO29 DO28 8 218.28 0.0041 0.105 1.76 0.24 0.3 DO30-DO29 DO30 DO28 8 273.60 0.0024 0.084 1.36 0.21 0.3 DO31-C009 DO31 C009 15 118.99 0.0075 1.697 4.49 0.60 0.4 DO32-DO31 DO33 DO31 15 325.61 0.002 0.465 1.98 0.47 0.4 DO34-DO33 DO33 12					·					0.14
D026-D025 D026 D025 8 255.56 D.0026 D.126 1.57 D.26 D.35 D027A-D026 D027A D026 8 79.62 D.0069 D.122 2.22 D.20 D.2 D027A D027 D027A S 169.81 D.0032 D.122 1.67 D.24 D.3 D027D D027A S 169.81 D.0032 D.122 1.67 D.24 D.3 D028-D027 D028 D027 S 218.28 D.0041 D.105 1.76 D.21 D.3 D028-D029 D028 S 153.07 D.0018 D.099 1.27 D.24 D.3 D029-D028 D029 D028 S 153.07 D.0018 D.099 1.27 D.24 D.3 D031-C009 D031 D009 S 273.60 D.0024 D.004 D.004 D.005 D.009 D.										
D027A-D026 D027A D026 8 79.62 D.0069 D.122 2.22 D.20 D.20 D027 D027A 8 169.81 D.0032 D.122 1.67 D.24 D.3 D028-D027 D028 D027 D028 D027 B 218.28 D.0041 D.105 D.125 D.126 D.23 D.22 D.23 D.										
DO27-DO27A DO27 DO27A 8 169.81 D.0032 D.122 1.67 D.24 D.3 DO28-DO27 DO28 DO27 8 218.28 D.0041 D.105 1.76 D.21 D.3 DO29-DO28 DO29 DO28 S S 153.07 D.0018 D.099 1.27 D.24 D.3 D.3										
DO28-D027 D028 D027 S										
DO29-DO28 DO29 DO28 8 153.07 0.0018 0.092 1.27 0.24 0.3 DO30-DO29 DO30 DO29 8 273.60 0.0024 0.084 1.36 0.21 0.3 DO31-C009 D031 C009 15 118.99 0.0075 1.697 4.49 0.60 0.4 D032-D031 D032 D031 15 325.61 0.0020 0.739 2.23 0.54 0.4 D034-D033 D032 12 248.97 0.0020 0.465 1.98 0.47 0.4 D034-D033 D034 D033 12 340.84 0.0020 0.465 1.98 0.47 0.4 D035-D035 D034 D033 12 340.84 0.0020 0.465 1.98 0.47 0.4 D035-D035 D036 D035 12 478.18 0.0020 0.456 1.97 0.46 0.4 D037-D036 D037 D036 12										
D030-D029 D030 D029 8 273.60 0.0024 0.084 1.36 0.21 0.3	-									
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D037-D036 D037 D036 12 427.81 0.0020 0.453 1.97 0.46 0.4					·					
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D039-D038 D039 D038 8 223.98 0.0040 0.066 1.53 0.16 0.2 D040-D039 D040 D039 8 217.89 0.0017 0.052 1.05 0.18 0.2 D041-D040 D041 D040 8 217.47 0.0032 0.043 1.25 0.14 0.2 D042-D041 D042 D041 8 140.39 0.0034 0.037 1.22 0.13 0.1 D043-D042 D043 D042 8 206.59 0.0039 0.037 1.28 0.12 0.1 D044-D043 D044 D043 8 24.37 0.0189 0.021 1.87 0.06 0.1 D045-D038 D045 D038 6 342.74 0.0199 0.009 1.52 0.05 0.0 D046-D006 D046 D006 8 101.71 0.0286 0.177 4.08 0.16 0.2 D047-D046 D047 D048										0.46
D040-D039 D040 D039 8 217.89 0.0017 0.052 1.05 0.18 0.2 D041-D040 D041 D040 8 217.47 0.0032 0.043 1.25 0.14 0.2 D042-D041 D042 D041 8 140.39 0.0034 0.037 1.22 0.13 0.1 D043-D042 D043 D042 8 206.59 0.0039 0.037 1.28 0.12 0.1 D044-D043 D044 D043 8 24.37 0.0189 0.021 1.87 0.06 0.1 D045-D038 D045 D038 6 342.74 0.0199 0.009 1.52 0.05 0.0 D046-D006 D046 D006 8 101.71 0.0286 0.177 4.08 0.16 0.2 D047-D046 D047 D046 8 59.27 0.0034 0.176 1.88 0.29 0.4 D048-D047 D048 B047										
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D044-D043 D044 D043 8 24.37 0.0189 0.021 1.87 0.06 0.1 D045-D038 D045 D038 6 342.74 0.0199 0.009 1.52 0.05 0.0 D046-D006 D046 D006 8 101.71 0.0286 0.177 4.08 0.16 0.2 D047-D046 D047 D046 8 59.27 0.0034 0.176 1.89 0.29 0.4 D048-D047 D048 D047 8 274.19 0.0032 0.134 1.72 0.25 0.3 D049-D048 D049 D048 8 59.50 0.0032 0.125 1.69 0.24 0.3 D050-D049 D050 D049 8 290.24 0.0032 0.109 1.62 0.22 0.3 D051-D050 D051 D050 8 37.51 0.0032 0.109 1.48 0.19 0.2 D052-D051 D052 D051			+							
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D051-D050 D051 D050 8 37.51 0.0032 0.079 1.48 0.19 0.2 D052-D051 D052 D051 8 166.67 0.0031 0.048 1.27 0.15 0.2 D053-D052 D053 D052 8 195.64 0.0041 0.046 1.38 0.14 0.2 D054-D053 D054 D053 8 346.91 0.0032 0.016 0.93 0.09 0.1 D055-D054 D055 D054 8 349.45 0.0032 0.016 0.93 0.09 0.1 D056-D055 D056 D055 8 353.38 0.0031 0.005 0.65 0.05 0.0 D057-D050 D057 D050 8 252.07 0.0024 0.029 1.00 0.12 0.1 D058-D057 D058 D057 8 263.26 0.0024 0.025 0.95 0.11 0.1 D059-D058 D059 D058		D049					0.125	1.69		0.36
D052-D051 D052 D051 8 166.67 0.0031 0.048 1.27 0.15 0.2 D053-D052 D053 D052 8 195.64 0.0041 0.046 1.38 0.14 0.2 D054-D053 D054 D053 8 346.91 0.0032 0.016 0.93 0.09 0.1 D055-D054 D055 D054 8 349.45 0.0033 0.010 0.81 0.07 0.1 D056-D055 D056 D055 8 353.38 0.0031 0.005 0.65 0.05 0.0 D057-D050 D057 D050 8 252.07 0.0024 0.029 1.00 0.12 0.1 D058-D057 D058 D057 8 263.26 0.0024 0.025 0.95 0.11 0.1 D059-D058 D059 D058 8 263.11 0.0024 0.018 0.87 0.10 0.1	D050-D049	D050							0.22	0.34
D053-D052 D053 D052 8 195.64 0.0041 0.046 1.38 0.14 0.2 D054-D053 D054 D053 8 346.91 0.0032 0.016 0.93 0.09 0.1 D055-D054 D055 D054 8 349.45 0.0033 0.010 0.81 0.07 0.1 D056-D055 D056 D055 8 353.38 0.0031 0.005 0.65 0.05 0.0 D057-D050 D057 D050 8 252.07 0.0024 0.029 1.00 0.12 0.1 D058-D057 D058 D057 8 263.26 0.0024 0.025 0.95 0.11 0.1 D059-D058 D059 D058 8 263.11 0.0024 0.018 0.87 0.10 0.1	D051-D050	D051		8		0.0032			0.19	0.29
D054-D053 D054 D053 8 346.91 0.0032 0.016 0.93 0.09 0.1 D055-D054 D055 D054 8 349.45 0.0033 0.010 0.81 0.07 0.1 D056-D055 D056 D055 8 353.38 0.0031 0.005 0.65 0.05 0.0 D057-D050 D057 D050 8 252.07 0.0024 0.029 1.00 0.12 0.1 D058-D057 D058 D057 8 263.26 0.0024 0.025 0.95 0.11 0.1 D059-D058 D059 D058 8 263.11 0.0024 0.018 0.87 0.10 0.1	D052-D051	D052	D051	8	166.67	0.0031	0.048	1.27	0.15	0.22
D055-D054 D055 D054 8 349.45 0.0033 0.010 0.81 0.07 0.1 D056-D055 D056 D055 8 353.38 0.0031 0.005 0.65 0.05 0.0 D057-D050 D057 D050 8 252.07 0.0024 0.029 1.00 0.12 0.1 D058-D057 D058 D057 8 263.26 0.0024 0.025 0.95 0.11 0.1 D059-D058 D059 D058 8 263.11 0.0024 0.018 0.87 0.10 0.1	D053-D052	D053	D052	8	195.64	0.0041	0.046	1.38	0.14	0.20
D056-D055 D056 D055 8 353.38 0.0031 0.005 0.65 0.05 0.0 D057-D050 D057 D050 8 252.07 0.0024 0.029 1.00 0.12 0.1 D058-D057 D058 D057 8 263.26 0.0024 0.025 0.95 0.11 0.1 D059-D058 D059 D058 8 263.11 0.0024 0.018 0.87 0.10 0.1		D054	D053	8	346.91	0.0032	0.016	0.93	0.09	0.13
D057-D050 D057 D050 8 252.07 0.0024 0.029 1.00 0.12 0.1 D058-D057 D058 D057 8 263.26 0.0024 0.025 0.95 0.11 0.1 D059-D058 D059 D058 8 263.11 0.0024 0.018 0.87 0.10 0.1	D055-D054	D055	D054	8	349.45	0.0033	0.010	0.81	0.07	0.10
D058-D057 D058 D057 8 263.26 0.0024 0.025 0.95 0.11 0.1 D059-D058 D059 D058 8 263.11 0.0024 0.018 0.87 0.10 0.1	D056-D055	D056	D055	8	353.38	0.0031	0.005	0.65	0.05	0.08
D059-D058 D059 D058 8 263.11 0.0024 0.018 0.87 0.10 0.1	D057-D050	D057	D050	8	252.07	0.0024	0.029	1.00	0.12	0.18
	D058-D057	D058	D057	8	263.26	0.0024	0.025	0.95	0.11	0.17
	D059-D058	D059	1		263.11	0.0024	0.018	0.87	0.10	0.15
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Model Results - Existing Peak Wet Weather Flow (PWWF) Scenario

			l Results - Existii		veatner Fio				
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity	Water Depth	d/D
D062-D047	D062	D047	(inches) 8	239.89	0.0033	0.038	(ft/s) 1.22	(feet) 0.13	0.20
D063-D062	D063	D062	8	259.25	0.0031	0.016	0.92	0.09	0.13
D064-D049	D064	D049	8	177.14	0.0031	0.016	0.92	0.09	0.13
D065-D064	D065	D064	8	198.08	0.0032	0.010	0.81	0.07	0.10
D067-D051	D067	D051	8	251.85	0.0031	0.031	1.13	0.12	0.18
D068-D067	D068	D051	8	255.94	0.0031	0.031	1.13	0.12	0.18
D069-D070	D069	D070	8	269.63	0.0032	0.031	0.81	0.12	0.15
	D070	D070	8		0.0020	0.018	0.81	0.10	
D070-D071	1	D071		254.91					0.17
D071-D072 D072-D073	D071 D072	D072	8	257.29 209.73	0.0020 0.0020	0.027 0.032	0.92 0.97	0.12 0.14	0.19
	+	D073	8	-					
D073-D074	D073	+	8	264.21	0.0020	0.051	1.10	0.17	0.26
D074-D030	D074	D030	8	81.80	0.0006	0.071	0.79	0.28	0.42
D075-D074	D075	D074	8	228.15	0.0024	0.015	0.83	0.09	0.14
D081-D073	D081	D073	8	184.78	0.0025	0.019	0.90	0.10	0.15
D082-D081	D082	D081	8	255.40	0.0020	0.016	0.79	0.10	0.15
D083-D082	D083	D082	8	256.66	0.0020	0.012	0.72	0.08	0.13
D084-D083	D084	D083	8	256.91	0.0036	0.009	0.81	0.06	0.09
D085-D084	D085	D084	8	250.72	0.0024	0.004	0.54	0.05	0.07
D086-D008	D086	D008	8	246.07	0.0040	0.013	0.95	0.08	0.11
D086-D008A	D008A	D008	8	185.17	0.0231	0.002	0.96	0.02	0.03
D087-D086	D087	D086	8	305.42	0.0040	0.009	0.85	0.06	0.10
D090-D001	D090	D001	8	17.57	0.0023	0.111	1.44	0.25	0.37
D091-D003	D091	D003	10	69.11	0.0007	0.000	0.00	0.00	0.00
D091-D032	D091	D032	10	8.94	0.0022	0.197	1.65	0.31	0.37
D092-D074	D092	D074	8	334.36	0.0024	0.005	0.58	0.05	0.08
D093-D059	D093	D059	8	158.00	0.0032	0.004	0.61	0.04	0.07
D094-D058	D094	D058	8	158.90	0.0032	0.004	0.61	0.04	0.07
D095-D057	D095	D057	8	159.26	0.0032	0.004	0.61	0.04	0.07
D096-D071	D096	D071	8	158.64	0.0183	0.004	1.09	0.03	0.04
D097-D070	D097	D070	8	155.79	0.0115	0.004	0.93	0.03	0.05
D098-D090	D098	D090	10	301.60	0.0022	0.111	1.40	0.23	0.28
E001-D010	E001	D010	10	316.10	0.0021	0.000	0.00	0.00	0.00
E001-E003	E001	E003	10	10.42	0.1344	0.051	4.71	0.06	0.07
E002-E001	E002	E001	8	39.33	0.0036	0.021	1.04	0.10	0.14
E003-D037	E003	D037	12	409.94	0.0021	0.440	1.98	0.45	0.45
E005A-E003	E005A	E003	12	507.10	0.0041	0.376	2.43	0.34	0.34
E005-E005A	E005	E005A	8	17.20	0.0279	0.274	4.59	0.21	0.31
E006-E005	E006	E005	8	286.15	0.0024	0.271	1.85	0.41	0.62
E007-E006	E007	E006	8	286.09	0.0024	0.250	1.82	0.39	0.59
E008-E007	E008	E007	8	283.56	0.0021	0.250	1.71	0.41	0.62
E009-E008	E009	E008	8	17.82	0.0067	0.102	2.08	0.18	0.27
E010-E009	E010	E009	8	168.63	0.0018	0.102	1.29	0.25	0.38
E011-E010	E011	E010	8	15.83	0.0030	0.031	1.11	0.12	0.18
E012-E011	E012	E011	8	317.97	0.0024	0.031	1.02	0.13	0.19
E013-E012	E013	E012	8	309.59	0.0032	0.019	0.97	0.09	0.14
E014-E013	E014	E013	8	202.26	0.0193	0.006	1.31	0.04	0.05
E015-E005A	E015	E005A	8	305.23	0.0082	0.095	2.18	0.17	0.25
E016-E015	E016	E015	8	306.48	0.0025	0.085	1.38	0.21	0.32
E017-E016	E017	E016	8	241.83	0.0022	0.073	1.27	0.20	0.30
E018-E017	E018	E017	8	192.34	0.0024	0.017	0.85	0.10	0.14
E019-E018	E019	E018	8	271.24	0.0024	0.015	0.81	0.09	0.13
E020-E019	E020	E019	8	269.46	0.0024	0.013	0.78	0.08	0.12
E021-E020	E021	E020	8	258.84	0.0024	0.010	0.78	0.07	0.11
E022-E021	E022	E021	8	309.40	0.0023	0.010	0.75	0.05	0.11
E023-E021	E023	E021	8	298.27	0.0024	0.004	0.57	0.05	0.07
E024-E023	E024	E023	8	175.78	0.0024	0.004	0.37	0.03	0.07
LUZ4-EUZ3	LU24	1023	_ o	1/3./8	0.0024	0.002	0.42	0.03	0.05

Model Results - Existing Peak Wet Weather Flow (PWWF) Scenario

			Results - Existii		veather Fio			_	
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
E026-D060	E026	D060	8	263.25	0.0024	0.006	0.62	0.06	0.09
E027-E026	E027	E026	8	255.02	0.0024	0.004	0.56	0.05	0.07
E028-E027	E028	E027	8	248.27	0.0024	0.002	0.45	0.03	0.05
	E029	D069	8	273.09	0.0023	0.015	0.81	0.09	0.13
	E030	E029	8	265.12	0.0028	0.013	0.82	0.08	0.12
-	E031	E017	8	181.74	0.0037	0.018	1.01	0.09	0.13
	E032	E031	8	68.05	0.0035	0.016	0.96	0.09	0.13
	E033	E032	8	98.89	0.0023	0.002	0.42	0.03	0.05
	E034	E032	8	354.07	0.0024	0.014	0.42	0.09	0.13
-	E035	E034	8	345.39	0.0024	0.014	0.75	0.08	0.13
	E036	E035	8	202.77	0.0024	0.004	0.56	0.05	0.07
	E037	E017	8	227.30	0.0024	0.036	1.06	0.14	0.07
	E038	E037	8	299.86	0.0023	0.030	0.89	0.14	0.21
	E039	E038	8	299.65	0.0024	0.020	0.83	0.10	0.13
	E040	E039	8	299.48	0.0021	0.011	0.71	0.08	0.12
-	E041	E040	8	303.30	0.0027	0.006	0.64	0.06	0.08
	E042	E041	8	139.42	0.0025	0.002	0.42	0.03	0.05
	E043	E037	8	230.96	0.0076	0.012	1.15	0.06	0.09
	E044	E043	8	349.56	0.0024	0.005	0.61	0.06	0.08
	E045	E044	8	203.86	0.0024	0.001	0.38	0.03	0.04
	E046	E016	8	347.94	0.0024	0.009	0.72	0.07	0.11
-	E047	E046	8	111.30	0.0023	0.005	0.57	0.05	0.08
	E048	E015	8	343.93	0.0102	0.010	1.20	0.05	0.08
	E049	E048	8	105.88	0.0025	0.004	0.58	0.05	0.08
	E050	E002	8	350.45	0.0034	0.021	1.03	0.10	0.14
	E051	E050	8	151.23	0.0040	0.016	1.00	0.08	0.12
E052-E008	E052	E008	8	168.78	0.0010	0.148	1.15	0.37	0.56
E054-E810	E054	E810	8	258.33	0.0020	0.041	1.03	0.15	0.23
	E055	E054	8	363.76	0.0024	0.018	0.87	0.10	0.15
	E056	E055	8	359.81	0.0024	0.014	0.81	0.09	0.13
	E057	E056	8	363.34	0.0024	0.008	0.69	0.07	0.10
	E058	E054	8	268.53	0.0020	0.020	0.84	0.11	0.16
	E059	E058	8	360.76	0.0020	0.015	0.78	0.10	0.14
-	E060	E059	8	360.38	0.0020	0.012	0.72	0.08	0.13
	E061	E060	8	364.40	0.0020	0.006	0.59	0.06	0.09
	E801	E030	8	267.27	0.0020	0.011	0.70	0.08	0.12
	E806	E052	8	24.49	0.0010	0.103	1.04		
	E807	E806	8	187.08	0.0008	0.103	0.96	0.32	0.48
	E808A	E807	8	358.79	0.0011	0.103	1.07	0.29	
	E808	E808A	8	131.23	0.0010	0.103	1.06	0.30	
-	E809	E808	8	255.48	0.0011	0.085	1.04	0.26	
	E810	E809	8	261.87	0.0011	0.046	0.86	0.19	
	E811	E810	8	348.96	0.0024	0.005	0.61	0.06	
-	E812	E811	8	255.53	0.0024	0.003	0.51	0.04	0.06
-	E833	E058	8	119.97	0.0021	0.001	0.39	0.03	0.05
	F002	F001	21	8.05	0.2473	0.027	4.32	0.03	0.02
F003-F002	F003	F002	15	349.22	0.0031	0.027	0.99	0.10	0.08
	F004	F003	15	357.41	0.0047	0.007	0.76	0.05	0.04
F005-F004	F005	F004	15	351.22	0.0047	0.007	0.76	0.05	0.04
F006-F800	F006	F800	8	418.39	0.0050	0.031	1.32	0.11	0.16
F007-F006	F007	F006	8	83.80	0.0075	0.031	1.52	0.10	0.15
F008-F007	F008	F007	8	335.84	0.0052	0.017	1.11	0.08	0.12
F009-F008	F009	F008	8	328.78	0.0015	0.007	0.55	0.07	0.10
F011-F001	F011	F001	8	46.69	0.0291	0.016	2.01	0.05	0.08
G001-G001A	G001	G001A	8	216.66	0.0027	0.044	1.19	0.15	0.22
G002-G001	G002	G001	8	191.60	0.0020	0.015	0.78	0.10	0.14

Model Results - Existing Peak Wet Weather Flow (PWWF) Scenario

	F		Results - Existii		vediner rie			Matau Dauth	
Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
	ID	ID	(inches)	(feet)		(MGD)	(ft/s)	(feet)	2.12
G003-G002	G003	G002	8	164.47	0.0020		0.70	0.08	0.12
G004-G003	G004	G003	8	281.87	0.0020		0.60	0.06	0.10
G005-G004	G005	G004	8	298.34	0.0020		0.61	0.06	0.10
G006-G005	G006	G005	8	169.64	0.0020		0.43	0.04	0.06
G007-G012	G007	G012	8	134.80	0.0040		0.51	0.03	0.04
G008-G001	G008	G001	8	106.31	0.0029		1.07	0.12	0.18
G009-G008	G009	G008	8	321.87	0.0023	0.024	0.93	0.11	0.17
G010-G009	G010	G009	8	245.00	0.0020	0.021	0.86	0.11	0.17
G011-G010	G011	G010	8	261.41	0.0020	0.017	0.79	0.10	0.15
G012-G011	G012	G011	8	88.58	0.0019	0.013	0.74	0.09	0.13
G013-G012	G013	G012	8	327.73	0.0020	0.012	0.71	0.08	0.13
G014-G013	G014	G013	8	328.54	0.0020	0.007	0.62	0.07	0.10
G015-G009	G015	G009	8	196.50	0.0039	0.003	0.60	0.04	0.06
G016-G008	G016	G008	8	33.09	0.0181	0.001	0.80	0.02	0.03
G801-G014	G801	G014	8	121.87	0.0021	0.002	0.45	0.04	0.06
H010-H002	H010	H002	12	11.95	0.1163	0.532	8.84	0.18	0.18
H011-H010	H011	H010	10	298.95	0.0020	0.239	1.67	0.36	0.43
H013-H011	H013	H011	10	285.32	0.0019		1.63	0.36	0.43
H015-H013	H015	H013	10	288.22	0.0016		1.51	0.37	0.45
H016-H015	H016	H015	10	342.70	0.0018		1.59	0.35	0.43
H017-H016	H017	H016	10	189.85	0.0020		1.64	0.35	0.42
H018-H017	H018	H017	10	163.53	0.0020		1.63	0.33	0.40
H019A-H018	H019A	H018	10	105.19	0.0021	0.199	1.62	0.32	0.38
H019-H019A	H019	H019A	10	244.75	0.0021		1.60	0.32	0.38
H020-H019	H020	H019	10	349.29	0.0020		1.60	0.32	0.38
H021-H020	H021	H020	10	75.24	0.0020		1.61	0.32	0.38
H022-H021	H022	H021	10	72.48	0.0021	0.183	1.45	0.32	0.39
H023-H010	H023	H010	8	62.07	0.0017		3.90	0.32	0.33
H024-H023	H024	H023	8		0.0163	0.293	3.21	0.24	0.37
	 			558.60					
H024-H025	H024	H025	10 10	245.01	0.0018		1.05 0.90	0.17	0.20
H025-H026	H025	H026		260.18	0.0012			0.19	
H026-H027	H026	H027	10	279.48	0.0012		0.93	0.19	0.23
H027-H028	H027	H028	10	112.54	0.0013		1.02	0.20	0.25
H028-H029	H028	H029	10	257.18	0.0017	0.154	1.40	0.29	0.35
H029-H030	H029	H030	10	368.36	0.0012		1.27	0.34	0.40
H030-H031	H030	H031	10	371.57	0.0012		1.27	0.35	0.42
H031-I012	H031	1012	10	217.20	0.0018		1.50	0.31	0.37
H037-H105	H037	H105	10	143.48	0.0012		1.30	0.36	0.43
H038-H037	H038	H037	8	255.33	0.0020		0.66	0.07	0.11
H039-H038	H039	H038	8	221.94	0.0023		0.56	0.05	0.08
H040-H037	H040	H037	10	176.19	0.0013		1.30	0.34	0.41
H041-H040	H041	H040	10	180.57	0.0011		1.23	0.35	0.42
H042-H041	H042	H041	10	208.95	0.0013		1.30	0.33	0.40
H043-H042	H043	H042	10	348.08	0.0012		1.27	0.33	0.40
H044-H043	H044	H043	8	263.66	0.0024		0.94	0.11	0.17
H045-H044	H045	H044	8	105.25	0.0025		0.87	0.10	0.14
H046-H045	H046	H045	8	185.11	0.0024	0.015	0.82	0.09	0.14
H047-H046	H047	H046	8	256.71	0.0024	0.010	0.72	0.07	0.11
H048-H047	H048	H047	8	257.07	0.0024		0.64	0.06	0.09
H049-H048	H049	H048	8	76.99	0.0025	0.001	0.36	0.02	0.04
H050-H043	H050	H043	10	370.83	0.0012	0.139	1.20	0.30	0.37
H051-H050	H051	H050	10	173.91	0.0012	0.096	1.08	0.25	0.30
H052-H051	H052	H051	8	31.75	0.0025	0.093	1.43	0.22	0.33
H053-H052	H053	H052	8	367.94	0.0049	0.017	1.09	0.08	0.12
H054-H053	H054	H053	8	349.15	0.0024		0.76	0.08	0.12
H055-H054	H055	H054	8	356.63	0.0024		0.65	0.06	0.09
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Model Results - Existing Peak Wet Weather Flow (PWWF) Scenario

			l Results - Existii		veather Fio				
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity	Water Depth	d/D
H056-H050	H056	H050	(inches) 8	120.40	0.0098	0.038	(ft/s) 1.78	(feet) 0.10	0.15
H057-H056	H057	H056	8	111.24	0.0058	0.038	1.48	0.11	0.17
H058-H057	H058	H057	8	202.28	0.0042	0.005	0.72	0.05	0.07
H059-H058	H059	H058	8	156.47	0.0025	0.003	0.51	0.04	0.06
H060-H044	H060	H044	8	295.35	0.0040	0.004	0.67	0.04	0.07
H061-H045	H061	H045	8	102.73	0.0040	0.004	0.49	0.04	0.07
H062-H046	H062	H046	8	154.62	0.0024	0.003	0.43	0.04	0.06
H063-H047	H063	H047	8	140.27	0.0041	0.004	0.63	0.04	0.06
			8		0.0040				
H064-H048 H065-H106	H064 H065	H048 H106	10	139.81 180.62	0.0040	0.003 0.077	0.63 1.04	0.04 0.22	0.06 0.26
						0.077			
H066-H065	H066	H065	8	250.93	0.0072		1.35	0.08	0.12
H067-H066	H067	H066	8	348.08	0.0024	0.018	0.87	0.10	0.15
H068A-H068	H068A	H068	8	251.25	0.0024	0.005	0.59	0.05	0.08
H068B-H068A	H068B	H068A	8	465.67	0.0060	0.003	0.73	0.04	0.05
H068-H067	H068	H067	8	312.25	0.0024	0.016	0.83	0.09	0.14
H069-H068	H069	H068	8	389.36	0.0042	0.006	0.75	0.05	0.08
H070-H065	H070	H065	8	71.63	0.0020	0.055	1.12	0.18	0.27
H071-H070	H071	H070	8	244.58	0.0020	0.050	1.10	0.17	0.26
H072-H071	H072	H071	8	327.00	0.0020	0.040	1.03	0.15	0.23
H073-H072	H073	H072	8	259.59	0.0018	0.033	0.94	0.14	0.21
H074-H073	H074	H073	8	251.92	0.0023	0.016	0.84	0.09	0.14
H075-H074	H075	H074	8	179.86	0.0026	0.012	0.78	0.08	0.12
H076-H075	H076	H075	8	270.02	0.0060	0.007	0.88	0.05	0.07
H077-H076	H077	H076	8	140.40	0.0061	0.001	0.55	0.02	0.03
H078-H075	H078	H075	8	281.19	0.0023	0.005	0.58	0.05	0.08
H079-H076	H079	H076	8	143.56	0.0100	0.003	0.87	0.03	0.05
H080-H071	H080	H071	8	224.74	0.0020	0.006	0.60	0.06	0.09
H081-H080	H081	H080	8	260.17	0.0024	0.005	0.60	0.05	0.08
H082-H073	H082	H073	8	329.25	0.0024	0.007	0.64	0.06	0.09
H083-B021	H083	B021	8	54.69	0.0035	0.082	1.55	0.19	0.29
H084-H083	H084	H083	8	227.00	0.0030	0.066	1.37	0.18	0.27
H085-H084	H085	H084	8	193.57	0.0024	0.063	1.26	0.18	0.27
H086-H085	H086	H085	8	21.87	0.0018	0.061	1.13	0.19	0.29
H087-H086	H087	H086	8	208.71	0.0024	0.042	1.11	0.15	0.23
H088-H087	H088	H087	8	122.13	0.0024	0.040	1.10	0.14	0.22
H089-H088	H089	H088	8	107.80	0.0022	0.038	1.06	0.14	0.22
H090-H089	H090	H089	8	77.79	0.0015	0.033	0.89	0.15	0.22
H091-H090	H091	H090	8	27.03	0.0037	0.025	1.11	0.10	0.15
H092-H091	H092	H091	8	203.17	0.0024	0.025	0.95	0.11	0.17
H093-B023	H093	B023	8	400.45	0.0042	0.020	1.09	0.09	0.13
H094-H093	H094	H093	8	399.49	0.0038	0.010	0.86	0.07	0.10
H095-B026A	H095	B026A	8	153.64	0.0043	0.004	0.67	0.04	0.06
H096-H095	H096	H095	8	85.04	0.0025	0.004	0.56	0.05	0.07
H097-B003	H097	B003	8	373.62	0.0024	0.015	0.82	0.09	0.14
H098-H097	H098	H097	8	166.59	0.0024	0.004	0.55	0.05	0.07
H099-H097	H099	H097	8	267.45	0.0151	0.007	1.23	0.04	0.06
H100-H099	H100	H099	8	148.76	0.0176	0.001	0.76	0.02	0.03
H101-H074	H101	H074	8	224.48	0.0020	0.003	0.49	0.05	0.07
H102-B001	H102	B001	8	198.54	0.0060	0.003	0.72	0.04	0.05
H103-H099	H103	H099	8	165.05	0.0070	0.004	0.83	0.04	0.06
H105-H024	H105	H024	10	300.94	0.0013	0.192	1.36	0.35	0.42
H106-H052	H106	H052	10	141.56	0.0011	0.077	0.99	0.23	0.27
H107-B005	H107	B005	8	284.80	0.0011	0.003	0.68	0.04	0.27
1001-1018	1001	1018	21	12.41	0.0031	1.192	3.93	0.44	0.25
1002-1001	1002	1001	12	343.56	0.0073	0.057	1.10	0.16	0.16
1003-1002	1002	1001	12	300.48	0.0020	0.057	1.10	0.16	0.16
1003-1002	1003	1002	12	300.48	0.0020	0.057	1.09	0.10	0.10

Model Results - Existing Peak Wet Weather Flow (PWWF) Scenario

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Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
	ID	ID	(inches)	(feet)		(MGD)	(ft/s)	(feet)	
1004-1003	1004	1003	12	351.75	0.0029	0.057	1.25	0.14	0.14
1005-1004	1005	1004	12	323.79	0.0020	0.039	0.97	0.13	0.13
1006-1005	1006	1005	12	4.86	0.0021	0.019	0.79	0.09	0.09
1007-1006	1007	1006	12	324.77	0.0020	0.019	0.79	0.09	0.09
1008-1007	1008	1007	12	135.46	0.0018		0.47	0.05	0.05
1009-1008	1009	1008	12	184.21	0.0021	0.000	0.00	0.00	0.00
1009-1023	1009	1023	12	10.72	0.0028	0.316	2.02	0.35	0.35
1010-1023	1010	1023	21	14.45	0.0021	1.908	2.86	0.78	0.44
1011-1010	1011	1010	10	330.03	0.0037	0.036	1.21	0.12	0.14
1012-1001	1012	1001	15	8.49	-0.0059	1.135	1.43	1.25	1.00
1013-1012	1013	1012	15	343.95	0.0017	0.956	2.24	0.66	0.53
1014-1013	1014	1013	15	351.61	0.0017	0.865	2.18	0.63	0.50
1015-1014	1015	1014	15	69.58	0.0017	0.865	2.19	0.62	0.50
1016A-1016	I016A	1016	15	350.07	0.0015	0.845	2.07	0.64	0.51
I016B-I016A	I016B	I016A	15	68.68	0.0015	0.845	2.04	0.65	0.52
1016-1015	1016	1015	15	278.72	0.0015	0.845	2.07	0.64	0.51
I017A-I017	I017A	1017	15	288.74	0.0015	0.699	1.98	0.57	0.46
I017B-I016B	I017B	1016B	15	248.61	0.0015	0.845	2.06	0.64	0.51
I017-I017B	1017	I017B	15	322.02	0.0015	0.845	2.07	0.64	0.51
1019-1018	1019	1018	24	534.85	0.0015	3.255	2.90	1.08	0.54
1020-1019	1020	1019	24	460.59	0.0013	3.255	2.74	1.13	0.57
1021-1006	1021	1006	12	11.22	0.0006	0.000	0.00	0.00	0.00
1021-1020	1021	1020	24	329.35	0.0018		3.07	1.03	0.52
1022-1021	1022	1021	21	458.96	0.0014	2.916	2.75	1.13	0.65
1023-1022	1023	1022	21	185.80	0.0014	2.874	2.71	1.13	0.65
1024-1023	1024	1023	12	411.81	0.0036	0.650	2.69	0.48	0.48
1025-1004	1025	1004	8	318.34	0.0024	0.017	0.86	0.10	0.14
1026-1025	1026	1025	8	331.20	0.0024	0.009	0.70	0.07	0.11
1027-1026	1027	1026	8	341.53	0.0024	0.007	0.65	0.06	0.09
1028-1027	1028	1027	8	125.19	0.0090		0.88	0.04	0.05
1029-1005	1029	1005	8	316.51	0.0024	0.020	0.90	0.10	0.16
1030-1029	1030	1029	8	329.03	0.0024	0.015	0.83	0.09	0.14
1031-1030	1031	1030	8	330.33	0.0024	0.010	0.72	0.07	0.11
1032-1031	1032	1031	8	202.53	0.0024	0.004	0.56	0.05	0.07
1033-1007	1033	1007	8	314.33	0.0024	0.015	0.82	0.09	0.13
1034-1033	1034	1033	8	329.41	0.0024		0.82	0.09	0.13
1035-1034	1035	1034	8	331.58	0.0024	0.010	0.72	0.07	0.11
1036-1035	1036	1035	8	265.34	0.0023	0.005	0.58	0.05	0.08
1037-1009	1037	1009	12	314.91	0.0013	0.313	1.52	0.42	0.42
1038-1037	1038	1037	12	336.29	0.0022	0.310	1.84	0.37	0.37
1039-1038	1039	1038	12	325.20	0.0019	0.308	1.73	0.38	0.38
1040-1039	1040	1039	12	255.16	0.0018	0.305	1.72	0.38	0.38
1041-1040	1041	1040	12	405.24	0.0018	0.303	1.70	0.38	0.38
1042-1041	1042	1041	12	59.91	0.0024	0.303	1.89	0.35	0.35
1043-1042	1043	1042	12	273.24	0.0024	0.235	1.76	0.31	0.31
1044-1043	1044	1043	12	317.06	0.0012	0.232	1.35	0.37	0.37
1045-1009	1045	1009	12	300.87	0.0021	0.003	0.47	0.04	0.04
1046-1045	1046	1045	12	309.89	0.0021	0.003	0.47	0.04	0.04
1047-1046	1047	1046	12	326.42	0.0020		0.46	0.04	0.04
1048-1047	1048	1047	12	273.76	0.0024	0.003	0.49	0.04	0.04
1049-1048	1049	1048	12	411.14	0.0016	0.003	0.42	0.04	0.04
1050-1049	1050	1049	12	342.23	0.0020	0.003	0.46	0.04	0.04
1051-1050	1051	1050	12	329.16	0.0019	0.003	0.46	0.04	0.04
1052-1042	1052	1042	8	89.58	0.0036	0.068	1.48	0.17	0.26
1053-1052	1053	1052	8	157.22	0.0024	0.068	1.28	0.19	0.29
1054-1053	1054	1053	8	365.30	0.0024	0.011	0.76	0.08	0.12

Model Results - Existing Peak Wet Weather Flow (PWWF) Scenario

1071-1058		F		Results - Existii		v cather rie			Matau Dauth	
1955-1054	Pipe ID				_	Slope		•		d/D
1056-1055									• •	2.00
1957-1956 1957 1956 8			+							
1985 1986 1987 1988 8										
1099-1058 1059 1058 8		+	+							
1069-1059 1060 1059 8		+	+							
		+								
1062-1061		+	-							
1063+1062 1063 1062 8			1							
1064-1063			1							
1065-1065 1066 1065 1066 1065 18 239.17 0.0024 0.032 1.04 0.13 0.19										
1066-1065 1066 1065 1066 1068 1067 1068 1067 1068 1067 1068 1067 1068 1067 1068 1067 1068 1069 1054 1069 1054 1069 1054 1069 1054 1069 1055 1070 1055 1070 1055 1070 1055 1070 1055 1070 1055 1070 1055 1070 1055 1071 1058 1071 1058 1071 1058 1071 1058 1071 1058 1071 1058 1071 1058 1071 1058 1071 1058 1071 1058 1071 1058 1072 1059 1072 1059 1066 1073 1066 1073 1066 1073 1066 1073 1066 1073 1066 1073 1074 1073 1074 1073 1074 1073 1074 1073 1075 1073 1075 1073 1075 1073 1075 1073 1074 1073 1075 1073 1075 1073 1075 1073 1075 1073 1075 1073 1075 1073 1075 1073 1075 1073 1075 10										
1057-1065 1067 1066 8 200.61 0.0024 0.014 0.81 0.09 0.13 0.09 0.13 0.09 0.005 0.070 0.005 0.		+	+							
1068+1067 1068			-							
1069-1054										
1070-1055	1068-1067	-							0.05	
1071-1058		+	-					0.68		
1072-1059					106.00			0.64		0.06
1073-1066 1073 1066 8	1071-1058	-		8				0.46	0.04	0.05
1074-1073 1074 1073 8	1072-1059	1072	1059	8	75.20	0.0024	0.002	0.45	0.03	0.05
1075-1073 1075 1073 8	1073-1066	1073	1066	8	185.87	0.0040	0.008	0.80	0.06	0.09
1076-1067 1076 1076 1076 1076 8	1074-1073	1074	1073	8	62.76	0.0024	0.005	0.58	0.05	0.08
1077-1076 1077 1076 8 66.32 0.0047 0.005 0.74 0.05 0.07 1078-1104 1078 1104 8 190.95 0.0036 0.162 1.89 0.27 0.40 1089-1078 1079 1078 8 241.08 0.0036 0.162 1.89 0.27 0.40 1080-1079 1080 1079 8 306.02 0.0115 0.025 1.67 0.08 0.12 1081-1080 1081 1080 8 304.94 0.0031 0.019 0.97 0.10 0.14 1082-1081 1082 1081 8 349.48 0.0037 0.015 0.95 0.08 0.12 1083-1082 1083 1082 8 197.65 0.0084 0.009 1.09 0.05 0.08 1084-1011 1084 1011 8 315.30 0.0036 0.014 0.93 0.08 0.12 1085-1084 1085 1084 8 330.76 0.0036 0.014 0.93 0.08 0.12 1085-1084 1085 1084 8 330.76 0.0036 0.010 0.83 0.07 0.10 1087-1013 1087 1013 8 45.32 0.0040 0.065 1.52 0.16 0.25 1088-1087 1088 1087 8 60.16 0.0815 0.065 4.39 0.08 0.12 1099-1089 1090 1089 8 288.00 0.0048 0.013 1.01 0.07 0.11 1091-1089 1091 1089 8 222.07 0.0058 0.032 1.41 0.11 0.16 1092-1015 1092 1015 8 166.50 0.0171 0.020 1.80 0.07 0.10 1093-1092 1093 1094 1093 8 228.00 0.0040 0.013 0.94 0.07 0.11 1094-1093 1094 1093 8 228.00 0.0040 0.010 0.87 0.07 0.11 1095-1094 1095 1095 8 333.17 0.0060 0.003 0.68 0.03 0.05 1096-1095 1096 1094 8 229.14 0.0040 0.013 0.94 0.07 0.11 1094-1093 1094 1093 8 228.00 0.0040 0.000 0.00 0.00 0.00 1093-1094 1095 1095 8 333.17 0.0061 0.003 0.68 0.03 0.05 1096-1095 1096 1095 8 333.17 0.0061 0.003 0.68 0.03 0.05 1096-1095 1096 1095 8 333.17 0.0061 0.003 0.68 0.03 0.05 1096-1095 1096 1095 8 333.17 0.0061 0.003 0.68 0.03 0.05 1096-1095 1096 1095 8 333.17 0.0061 0.003 0.68 0.03 0.05 1006-1001 1001 101 101 103.35.7 0.0020 1.865 2.78	1075-1073	1075	1073	8	69.34	0.0025	0.003	0.50	0.04	0.06
1078-1104 1078 1104 8 190.95 0.0036 0.162 1.89 0.27 0.40 1079-1078 1079 1078 8 241.08 0.0036 0.162 1.89 0.27 0.40 1080-1079 1080 1079 8 306.02 0.0115 0.025 1.67 0.08 0.12 1081-1080 1081 1080 8 304.94 0.0031 0.019 0.97 0.10 0.14 1082-1081 1082 1081 8 349.48 0.0037 0.015 0.95 0.08 0.12 1083-1082 1083 1082 8 197.65 0.0084 0.009 1.09 0.05 0.08 1084-1011 1084 1011 8 315.30 0.0036 0.014 0.93 0.08 0.12 1085-1084 1085 1084 8 330.76 0.0036 0.010 0.83 0.07 0.10 1086-1085 1086 1085 8 256.16 0.0036 0.005 0.67 0.05 0.07 1086-1085 1088 1087 8 60.16 0.0815 0.065 4.39 0.08 0.12 1089-1088 1089 1088 8 191.60 0.0041 0.065 1.53 0.16 0.25 1089-1089 1090 1089 8 222.07 0.0058 0.032 1.41 0.11 0.16 1092-1015 1092 1015 8 166.50 0.0171 0.020 1.80 0.07 0.10 1093-1092 1095 1092 8 229.14 0.0040 0.013 0.94 0.07 0.10 1094-1093 1094 1093 8 228.00 0.0040 0.013 0.94 0.07 0.10 1095-1092 1095 1092 8 360.95 0.0040 0.004 0.667 0.04 0.07 1096-1095 1096 1094 8 229.14 0.0040 0.013 0.94 0.07 0.10 1099-1094 1096 1094 8 229.14 0.0040 0.013 0.94 0.07 0.10 1099-1094 1096 1094 8 229.98 0.0060 0.003 0.67 0.03 0.05 1096-1095 1096 1094 8 235.98 0.0060 0.003 0.67 0.03 0.05 1096-1095 1096 1094 8 235.41 0.0015 1.700 2.46 0.87 0.85 0.57 1096-1095 1096 1097 18 325.41 0.0015 1.700 2.46 0.87 0.85 0.57 1005-1010 1106 1107 118 325.41 0.0020 1.865 2.78 0.85 0.57 1006-1017 1106 1107 118 335.40 0.0020 1.866 2.78 0.85 0.57 1006-1011 1001 1011 101 303.57 0.0020 1.865 2.78 0.85 0.57 1006-1011 1001 1011 101 303.57 0.0020	1076-1067	1076	1067	8	142.84	0.0037	0.005	0.68	0.05	0.07
1079-1078 1079 1078 8	1077-1076	1077	1076	8	66.32	0.0047	0.005	0.74	0.05	0.07
	1078-1104	1078	1104	8	190.95	0.0036	0.162	1.89	0.27	0.40
	1079-1078	1079	1078	8	241.08	0.0036	0.162	1.89	0.27	0.40
1082-1081 1082 1081 8	1080-1079	1080	1079	8	306.02	0.0115	0.025	1.67	0.08	0.12
1083-1082 1083 1082 8	1081-1080	1081	1080	8	304.94	0.0031	0.019	0.97	0.10	0.14
1084-1011 1084 1011 8 315.30 0.0036 0.014 0.93 0.08 0.12 1085-1084 1085 1084 8 330.76 0.0036 0.010 0.83 0.07 0.10 1086-1085 1086 1085 8 256.16 0.0036 0.005 0.67 0.05 0.07 1087-1013 1087 1013 8 45.32 0.0040 0.065 1.52 0.16 0.25 1088-1087 1088 1087 8 60.16 0.0815 0.065 4.39 0.08 0.12 1089-1088 1089 1088 8 191.60 0.0041 0.065 1.53 0.16 0.24 1090-1089 1090 1089 8 228.00 0.0048 0.013 1.01 0.07 0.11 1091-1089 1091 1089 8 222.07 0.0058 0.032 1.41 0.11 0.16 1092-1015 1092 1015 8 166.50 0.0171 0.020 1.80 0.07 0.10 1093-1092 1093 1094 1093 8 229.14 0.0040 0.013 0.94 0.07 0.10 1094-1093 1094 1093 8 228.00 0.0040 0.010 0.87 0.07 0.10 1096-1094 1096 1094 8 226.98 0.0660 0.003 0.67 0.04 0.07 1096-1095 1096 1094 8 226.98 0.0060 0.003 0.67 0.03 0.05 1098-1094 1096 1094 8 226.98 0.0060 0.003 0.68 0.03 0.05 1099-1034 1099 1034 8 119.75 0.0023 0.003 0.48 0.04 0.06 1099-1034 1099 1034 8 120.83 0.0118 0.000 0.00 0.00 0.00 102-1103 1102 1103 18 350.40 0.015 1.700 2.46 0.87 0.58 1103-1104 1105 1106 1107 118 325.41 0.0015 1.700 2.46 0.87 0.58 1103-1106 1105 1106 118 325.41 0.0015 1.700 2.44 0.88 0.59 1103-1106 1107 1108 18 337.56 0.0020 1.865 2.78 0.85 0.57 1105-1106 1107 1108 118 337.56 0.0020 1.865 2.79 0.85 0.57 1105-1106 1107 1108 110 303.57 0.0036 0.012 0.85 0.07 0.08 1003-1002 1003 1002 100 258.16 0.0036 0.012 0.85 0.07 0.08 1003-1002 1003 1002 100 258.16 0.0036 0.012 0.85 0.07 0.08 1003-1002 1003 1002 100 258.16 0.0036 0.012 0.85 0.07 0.08 1003-1002 1003 1002 100 258.16 0.	1082-1081	1082	1081	8	349.48	0.0037	0.015	0.95	0.08	0.12
1085-1084 1085 1084 8	1083-1082	1083	1082	8	197.65	0.0084	0.009	1.09	0.05	0.08
1086-1085 1086 1085 8	1084-1011	1084	1011	8	315.30	0.0036	0.014	0.93	0.08	0.12
1087-1013 1087 1013 8	1085-1084	1085	1084	8	330.76	0.0036	0.010	0.83	0.07	0.10
1088-1087 1088 1087 8	1086-1085	1086	1085	8	256.16	0.0036	0.005	0.67	0.05	0.07
1089-1088 1089 1088 8	1087-1013	1087	1013	8	45.32	0.0040	0.065	1.52	0.16	0.25
1090-1089 1090 1089 8 288.00 0.0048 0.013 1.01 0.07 0.11 1091-1089 1091 1089 8 222.07 0.0058 0.032 1.41 0.11 0.16 1092-1015 1092 1015 8 166.50 0.0171 0.020 1.80 0.07 0.10 1093-1092 1093 1092 8 229.14 0.0040 0.013 0.94 0.07 0.11 1094-1093 1094 1093 8 228.00 0.0040 0.010 0.87 0.07 0.10 1095-1092 1095 1092 8 360.95 0.0040 0.010 0.87 0.07 0.10 1096-1094 1096 1094 8 296.98 0.0060 0.003 0.67 0.03 0.05 1096-1095 1096 1095 8 333.17 0.0061 0.003 0.68 0.03 0.05 1098-1043 1098 1043 8 119.75 0.0023 0.003 0.48 0.04 0.06 1099-1034 1099 1034 8 120.83 0.0118 0.000 0.00 0.00 102-1103 1102 1103 18 350.40 0.0015 1.700 2.46 0.87 0.58 1103-1104 1103 1104 18 325.41 0.0015 1.700 2.44 0.88 0.59 1104-1105 1104 1105 18 425.90 0.0020 1.864 2.78 0.85 0.57 1105-1106 1105 1106 18 234.72 0.0020 1.865 2.78 0.85 0.57 1106-1107 1106 1107 18 322.16 0.0021 1.865 2.84 0.84 0.56 1001-1011 1001 1011 10 303.57 0.0036 0.022 1.03 0.09 0.11 1002-1001 1002 1001 10 98.40 0.0037 0.014 0.90 0.07 0.09 1003-1002 1003 1002 10 258.16 0.0036 0.012 0.85 0.07 0.08 1003-1002 1003 1002 100 258.16 0.0036 0.012 0.85 0.07 0.08 1004-1005 1006 1007 1008 1007 1008 1009 0.008 0.0020 0.008 0.0020 0.008 0.0020 0.008 0.009 0.008 0.009	1088-1087	1088	1087	8	60.16	0.0815	0.065	4.39	0.08	0.12
1091-1089 1091 1089	1089-1088	1089	1088	8	191.60	0.0041	0.065	1.53	0.16	0.24
1092-1015 1092 1015 8	1090-1089	1090	1089	8	288.00	0.0048	0.013	1.01	0.07	0.11
1093-1092 1093 1092 8 229.14 0.0040 0.013 0.94 0.07 0.11 1094-1093 1094 1093 8 228.00 0.0040 0.010 0.87 0.07 0.10 1095-1092 1095 1092 8 360.95 0.0040 0.004 0.67 0.04 0.07 1096-1094 1096 1094 8 296.98 0.0060 0.003 0.67 0.03 0.05 1096-1095 1096 1095 8 333.17 0.0061 0.003 0.68 0.03 0.05 1098-1043 1098 1043 8 119.75 0.0023 0.003 0.48 0.04 0.06 1099-1034 1099 1034 8 120.83 0.0118 0.000 0.00 0.00 102-1103 1102 1103 18 350.40 0.0015 1.700 2.46 0.87 0.58 1103-1104 1103 1104 18 325.41 0.0015 1.700 2.44 0.88 0.59 1104-1105 1104 1105 18 425.90 0.0020 1.864 2.78 0.85 0.57 1105-1106 1105 1106 18 234.72 0.0020 1.865 2.78 0.85 0.57 1106-1107 1106 1107 18 322.16 0.0021 1.865 2.84 0.84 0.56 1107-1108 1107 1108 18 337.56 0.0020 1.868 2.79 0.85 0.57 1108-1010 1108 1010 18 308.66 0.0020 1.870 2.81 0.85 0.57 1001-1011 1001 1011 10 303.57 0.0036 0.022 1.03 0.09 0.11 1002-1001 1002 1001 101 10 98.40 0.0037 0.014 0.90 0.07 0.09 1003-1002 1003 1002 10 258.16 0.0036 0.012 0.85 0.07 0.08 1004 1005 1006 1007 1006 1007 0.09 0.0008 0.00200 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.002	1091-1089	1091	1089	8	222.07	0.0058	0.032	1.41	0.11	0.16
1094-1093 1094 1093 8 228.00 0.0040 0.010 0.87 0.07 0.10 1095-1092 1095 1092 8 360.95 0.0040 0.004 0.67 0.04 0.07 1096-1094 1096 1094 8 296.98 0.0060 0.003 0.67 0.03 0.05 1096-1095 1096 1095 8 333.17 0.0061 0.003 0.68 0.03 0.05 1098-1043 1098 1043 8 119.75 0.0023 0.003 0.48 0.04 0.06 1099-1034 1099 1034 8 120.83 0.0118 0.000 0.00 0.00 102-1103 1102 1103 18 350.40 0.0015 1.700 2.46 0.87 0.58 1103-1104 1103 1104 18 325.41 0.0015 1.700 2.44 0.88 0.59 1104-1105 1104 1105 18 425.90 0.0020 1.864 2.78 0.85 0.57 1105-1106 1105 1106 1107 18 322.16 0.0021 1.865 2.84 0.84 0.56 1107-1108 1107 1108 18 337.56 0.0020 1.868 2.79 0.85 0.57 1108-1010 1108 1010 18 308.66 0.0020 1.870 2.81 0.85 0.57 1001-1011 1001 1011 10 303.57 0.0036 0.012 0.85 0.07 0.09 1003-1002 1003 1002 100 258.16 0.0036 0.012 0.85 0.07 0.08 1004-1002 1003 1002 100 258.16 0.0036 0.012 0.85 0.07 0.08 1006-1007 1008 1009 1009 1009 1009 0.07 0.09 1003-1002 1003 1002 100 258.16 0.0036 0.012 0.85 0.07 0.08 1008-1008 1009	1092-1015	1092	1015	8	166.50	0.0171	0.020	1.80	0.07	0.10
1095-1092 1095 1092 8 360.95 0.0040 0.004 0.67 0.04 0.07 1096-1094 1096 1094 8 296.98 0.0060 0.003 0.67 0.03 0.05 1096-1095 1096 1095 8 333.17 0.0061 0.003 0.68 0.03 0.05 1098-1043 1098 1043 8 119.75 0.0023 0.003 0.48 0.04 0.06 1099-1034 1099 1034 8 120.83 0.0118 0.000 0.00 0.00 1102-1103 1102 1103 18 350.40 0.0015 1.700 2.46 0.87 0.58 1103-1104 1103 1104 18 325.41 0.0015 1.700 2.44 0.88 0.59 1104-1105 1104 1105 18 425.90 0.0020 1.864 2.78 0.85 0.57 1105-1106 1105 1106 18 234.72 0.0020 1.865 2.78 0.85 0.57 1106-1107 1106 1107 18 322.16 0.0021 1.865 2.84 0.84 0.56 1107-1108 1107 1108 18 337.56 0.0020 1.870 2.81 0.85 0.57 1108-1010 1108 1010 18 308.66 0.0020 1.870 2.81 0.85 0.57 1001-1011 1001 1011 10 303.57 0.0036 0.022 1.03 0.09 0.11 1002-1001 1002 1001 101 98.40 0.0037 0.014 0.90 0.07 0.09 1003-1002 1003 1002 10 258.16 0.0036 0.012 0.85 0.07 0.08 1005-1006 1007 1008 1008 1008 1008 1008 1008 1009 0.008 0.008 0.0012 0.85 0.07 0.08 1006-1007 1007 1008 1009	1093-1092	1093	1092	8	229.14	0.0040	0.013	0.94	0.07	0.11
1096-1094 1096 1094 8 296.98 0.0060 0.003 0.67 0.03 0.05 1096-1095 1096 1095 8 333.17 0.0061 0.003 0.68 0.03 0.05 1098-1043 1098 1043 8 119.75 0.0023 0.003 0.48 0.04 0.06 1099-1034 1099 1034 8 120.83 0.0118 0.000 0.00 0.00 1102-1103 1102 1103 18 350.40 0.0015 1.700 2.46 0.87 0.58 1103-1104 1103 1104 18 325.41 0.0015 1.700 2.44 0.88 0.59 1104-1105 1104 1105 18 425.90 0.0020 1.864 2.78 0.85 0.57 1105-1106 1105 1106 18 234.72 0.0020 1.865 2.78 0.85 0.57 1106-1107 1106 1107 18 322.16 0.0021 1.865 2.84 0.84 0.56 1107-1108 1107 1108 18 337.56 0.0020 1.868 2.79 0.85 0.57 1108-1010 1108 1010 18 308.66 0.0020 1.870 2.81 0.85 0.57 1001-1011 1001 1011 10 303.57 0.0036 0.022 1.03 0.09 0.11 1002-1001 1002 1003 1002 10 258.16 0.0036 0.012 0.85 0.07 0.08 1003-1002 1003 1002 10 258.16 0.0036 0.012 0.85 0.07 0.08 1005-1006 1007 1008 1009 1008 1009 1008 1009 1008 1009 1008 1009 1008 1009 1008 1009 1008 1009 1008 1009 1008 1009 1008 1009 1008 1009 1008 1009	1094-1093	1094	1093	8	228.00	0.0040	0.010	0.87	0.07	0.10
1096-1095 1096 1095 8 333.17 0.0061 0.003 0.68 0.03 0.05 1098-1043 1098 1043 8 119.75 0.0023 0.003 0.48 0.04 0.06 1099-1034 1099 1034 8 120.83 0.0118 0.000 0.00 0.00 0.00 1102-1103 1102 1103 18 350.40 0.0015 1.700 2.46 0.87 0.58 1103-1104 1103 1104 18 325.41 0.0015 1.700 2.44 0.88 0.59 1104-1105 1104 1105 18 425.90 0.0020 1.864 2.78 0.85 0.57 1105-1106 1105 1106 18 234.72 0.0020 1.865 2.78 0.85 0.57 1106-1107 1106 1107 18 322.16 0.0021 1.865 2.84 0.84 0.56 1107-1108 1107 1108 18 337.56 0.0020 1.868 2.79 0.85 0.57 1108-1010 1108 1010 18 308.66 0.0020 1.870 2.81 0.85 0.57 1001-1011 1001 1011 10 303.57 0.0036 0.022 1.03 0.09 0.11 1002-1001 1002 1003 1002 10 258.16 0.0036 0.012 0.85 0.07 0.08 1003-1002 1003 1002 100 258.16 0.0036 0.012 0.85 0.07 0.08 1008-1009 1008-1009 1009 1009 0.07 0.09 1008-1009 1008-1009 1009	1095-1092	1095	1092	8	360.95	0.0040	0.004	0.67	0.04	0.07
1098-1043 1098 1043 8 119.75 0.0023 0.003 0.48 0.04 0.06 1099-1034 1099 1034 8 120.83 0.0118 0.000 0.00 0.00 1102-1103 1102 1103 18 350.40 0.0015 1.700 2.46 0.87 0.58 1103-1104 1103 1104 18 325.41 0.0015 1.700 2.44 0.88 0.59 1104-1105 1104 1105 18 425.90 0.0020 1.864 2.78 0.85 0.57 1105-1106 1105 1106 18 234.72 0.0020 1.865 2.78 0.85 0.57 1106-1107 1106 1107 18 322.16 0.0021 1.865 2.84 0.84 0.56 1107-1108 1107 1108 18 337.56 0.0020 1.868 2.79 0.85 0.57 1108-1010 1108 1010 18 308.66 0.0020 1.870 2.81 0.85 0.57 1001-1011 1001 1011 10 303.57 0.0036 0.022 1.03 0.09 0.11 1002-1001 1002 1003 1002 10 258.16 0.0036 0.012 0.85 0.07 0.08 1003-1002 1003 1002 10 258.16 0.0036 0.012 0.85 0.07 0.08 1008-1000 1008-1000 1008 1009 1009 0.07 0.08 1009-1001 1003 1002 100 258.16 0.0036 0.012 0.85 0.07 0.08 1009-1001 1001 1001 1001 1001 1001 0.08 0.0020	1096-1094	1096	1094	8	296.98	0.0060	0.003	0.67	0.03	0.05
1099-1034 1099 1034 8	1096-1095	1096	1095	8	333.17	0.0061	0.003	0.68	0.03	0.05
1102-1103 1102 1103 18 350.40 0.0015 1.700 2.46 0.87 0.58 1103-1104 1103 1104 18 325.41 0.0015 1.700 2.44 0.88 0.59 1104-1105 1104 1105 18 425.90 0.0020 1.864 2.78 0.85 0.57 1105-1106 1105 1106 18 234.72 0.0020 1.865 2.78 0.85 0.57 1106-1107 1106 1107 18 322.16 0.0021 1.865 2.84 0.84 0.56 1107-1108 1107 1108 18 337.56 0.0020 1.868 2.79 0.85 0.57 1108-1010 1108 1010 18 308.66 0.0020 1.870 2.81 0.85 0.57 1001-1011 1001 1011 10 303.57 0.0036 0.022 1.03 0.09 0.11 1002-1001 1002 1003 1002 10 258.16 0.0036 0.012 0.85 0.07 0.08 1003-1002 1003 1002 10 258.16 0.0036 0.012 0.85 0.07 0.08 1001-1012 1003 1003 1003 1003 1003 1003 0.0036 0.0036 0.0036 0.0037 0.004 0.007 0.08 1001-1012 1003 1003 1003 1003 1003 0.0036 0.0036 0.0036 0.0037 0.004 0.007 0.008 1001-1012 1003 1003 1003 1003 1003 0.0036 0.0	1098-1043	1098	1043	8	119.75	0.0023	0.003	0.48	0.04	0.06
1103-1104 1103 1104 18 325.41 0.0015 1.700 2.44 0.88 0.59 1104-1105 1104 1105 18 425.90 0.0020 1.864 2.78 0.85 0.57 1105-1106 1105 1106 18 234.72 0.0020 1.865 2.78 0.85 0.57 1106-1107 1106 1107 18 322.16 0.0021 1.865 2.84 0.84 0.56 1107-1108 1107 1108 18 337.56 0.0020 1.868 2.79 0.85 0.57 1108-1010 1108 1010 18 308.66 0.0020 1.870 2.81 0.85 0.57 1001-1011 1001 1011 10 303.57 0.0036 0.022 1.03 0.09 0.11 1002-1001 1002 1003 1002 10 258.16 0.0036 0.012 0.85 0.07 0.08 1007 0.08 1007 0.08 1007 0.08 1007 0.08 1007 0.08 1008 1009 0.07 0.08 1008 1009 0.07 0.08 1008 1009 0.07 0.08 1008 1009 0.07 0.08 1008 1009 0.07 0.08 1008 1009 0.07 0.08 0.09 0.07 0.08 0.09 0.07 0.08 0.09 0.07 0.08 0.09 0.07 0.08 0.09 0.07 0.08 0.09 0.07 0.09	1099-1034	1099	1034	8	120.83	0.0118	0.000	0.00	0.00	0.00
1104-1105 1104 1105 18 425.90 0.0020 1.864 2.78 0.85 0.57 1105-1106 1105 1106 18 234.72 0.0020 1.865 2.78 0.85 0.57 1106-1107 1106 1107 18 322.16 0.0021 1.865 2.84 0.84 0.56 1107-1108 1107 1108 18 337.56 0.0020 1.868 2.79 0.85 0.57 1108-1010 1108 1010 18 308.66 0.0020 1.870 2.81 0.85 0.57 1001-1011 1001 1011 10 303.57 0.0036 0.022 1.03 0.09 0.11 1002-1001 1002 1003 1002 10 258.16 0.0036 0.012 0.85 0.07 0.08 1003-1002 1003 1002 100 258.16 0.0036 0.012 0.85 0.07 0.08 1004-1016 1105 1106	I102-I103	1102	1103	18	350.40	0.0015	1.700	2.46	0.87	0.58
1105-1106 1105 1106 18 234.72 0.0020 1.865 2.78 0.85 0.57 1106-1107 1106 1107 18 322.16 0.0021 1.865 2.84 0.84 0.56 1107-1108 1107 1108 18 337.56 0.0020 1.868 2.79 0.85 0.57 1108-1010 1108 1010 18 308.66 0.0020 1.870 2.81 0.85 0.57 1001-1011 1001 1011 10 303.57 0.0036 0.022 1.03 0.09 0.11 1002-1001 1002 1003 1002 10 258.16 0.0036 0.012 0.85 0.07 0.08 1008-1009 1008 1009 1009 1009 1009 1009 1008-1009 1009 1009 1009 1009 1009 1009 1009 1008-1009 1009 1009 1009 1009 1009 1009 1008-1009 1009 1009 1009 1009 1009 1009 1008-1009 1009 1009 1009 1009 1009 1008-1009 1009 1009 1009 1009 1009 1008-1009 1009 1009 1009 1009 1009 1008-1009 1009 1009 1009 1009 1009 1008-1009 1009 1009 1009 1009 1008-1009 1009 1009 1009 1009 1008-1009 1009 1009 1009 1008-1009 1009 1009 1009 1009-1009 1009 1009 1009 1009-1009 1009 1009 1009 1009-1009 1009 1009 1009 1009-1009 1009 1009 1009 1009-1009 1009 1009	I103-I104	1103	1104	18	325.41	0.0015	1.700	2.44	0.88	0.59
1106- 107 1106 1107 18 322.16 0.0021 1.865 2.84 0.84 0.56 1107- 108 1107 1108 18 337.56 0.0020 1.868 2.79 0.85 0.57 1108- 010 1108 1010 18 308.66 0.0020 1.870 2.81 0.85 0.57 1001- 011 1001 1011 10 303.57 0.0036 0.022 1.03 0.09 0.11 1002- 001 1002 1001 10 98.40 0.0037 0.014 0.90 0.07 0.09 1003- 002 1003 1002 10 258.16 0.0036 0.012 0.85 0.07 0.08 1006- 007 1007 1008 1008 1008 1008 1008 1008 1008 1007- 008 1008	I104-I105	1104	1105	18	425.90	0.0020	1.864	2.78	0.85	0.57
1106- 107 1106 1107 18 322.16 0.0021 1.865 2.84 0.84 0.56 1107- 108 1107 1108 18 337.56 0.0020 1.868 2.79 0.85 0.57 1108- 010 1108 1010 18 308.66 0.0020 1.870 2.81 0.85 0.57 1001- 011 1001 1011 10 303.57 0.0036 0.022 1.03 0.09 0.11 1002- 001 1002 1001 10 98.40 0.0037 0.014 0.90 0.07 0.09 1003- 002 1003 1002 10 258.16 0.0036 0.012 0.85 0.07 0.08 1006- 007 1007 1008 1008 1008 1008 1008 1008 1008 1007- 008 1008	1105-1106	1105	1106	18	234.72	0.0020	1.865	2.78	0.85	0.57
1108-1010 1108 1010 18 308.66 0.0020 1.870 2.81 0.85 0.57 1001-1011 1001 1011 10 303.57 0.0036 0.022 1.03 0.09 0.11 1002-1001 1002 1001 10 98.40 0.0037 0.014 0.90 0.07 0.09 1003-1002 1003 1002 1003 1002 1003 1003-1002 1003 1003-1002 1003-1003 1003-	1106-1107			18		0.0021		2.84	0.84	0.56
1108-1010 1108 1010 18 308.66 0.0020 1.870 2.81 0.85 0.57 1001-1011 1001 1011 10 303.57 0.0036 0.022 1.03 0.09 0.11 1002-1001 1002 1001 10 98.40 0.0037 0.014 0.90 0.07 0.09 1003-1002 1003 1002 1003 1002 1003 1003-1002 1003 1003-1002 1003-1003 1003-	1107-1108	1	1108	18		0.0020		2.79	0.85	0.57
J001-I011 J001 I011 10 303.57 0.0036 0.022 1.03 0.09 0.11 J002-J001 J002 J001 10 98.40 0.0037 0.014 0.90 0.07 0.09 J003-J002 J003 J002 10 258.16 0.0036 0.012 0.85 0.07 0.08		1108	1010			0.0020				0.57
J002-J001 J002 J001 10 98.40 0.0037 0.014 0.90 0.07 0.09 J003-J002 J003 J002 10 258.16 0.0036 0.012 0.85 0.07 0.08	J001-I011			10				1.03	0.09	0.11
J003-J002 J003 J002 10 258.16 0.0036 0.012 0.85 0.07 0.08										0.09
										0.08
	J004-J003	J004	J003	10	320.21	0.0036		0.00	0.00	0.00

Model Results - Existing Peak Wet Weather Flow (PWWF) Scenario

			l Results - Existii		veatner Fio				
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity	Water Depth	d/D
J004-J015	J004	J015	(inches)	6.48	0.0031	0.397	(ft/s) 2.23	(feet) 0.38	0.38
J005-J004	J005	J004	10	264.92	0.0031	0.349	2.14	0.39	0.47
J006-J005	J006	J005	10	45.47	0.0036	0.344	2.14	0.40	0.48
J007-J006	J007	J006	10	168.40	0.0020	0.341	2.57	0.33	0.40
J007-J000 J008-J007	J008	J007	10	203.96	0.0030	0.341	1.96	0.33	0.40
J008-J007 J009-J008	J008	J008	10	329.72	0.0024	0.332	1.98	0.40	0.43
J010A-J010	J010A	J010	8	265.27	0.0100	0.006	1.00	0.40	0.48
J010A-J010 J010B-J010A	J010A J010B	J010A	8	247.90	0.0100	0.004	0.66	0.04	0.06
J010B-J010A J010-J009	J010B J010	J010A J009	10	201.30	0.0042	0.004	1.93		0.06
J010-J009 J011-J010	J010 J011	J010	10	148.25	0.0025	0.332	1.93	0.41	0.49
J011-J010 J012-J011	J011	J010 J011	10	350.80	0.0025	0.323	1.95	0.40	0.48
J012-J011 J013-I024	J012 J013	1024	12	329.16	0.0023	0.650	2.72	0.40	0.48
	+	+							
J013-J002	J013	J002	8	8.36	0.0551	0.002	1.38	0.02	0.03
J014-J013	J014	J013	12	249.33	0.0035	0.401	2.35	0.37	0.37
J015-J014	J015	J014	12	327.85	0.0035	0.401	2.35	0.37	0.37
J016-K002	J016	K002	8	52.58	0.0171	0.006	1.24	0.04	0.06
J017-J016	J017	J016	8	149.18	0.0056	0.005	0.78	0.04	0.06
J018-J017	J018	J017	8	72.17	0.0058	0.004	0.75	0.04	0.06
J019-J018	J019	J018	8	288.63	0.0032	0.003	0.56	0.04	0.06
J020-J001	J020	J001	8	319.06	0.0055	0.008	0.90	0.05	0.08
J021-J020	J021	J020	8	328.97	0.0056	0.005	0.79	0.04	0.07
J022-J021	J022	J021	8	241.41	0.0057	0.002	0.56	0.03	0.04
J023-J003	J023	J003	8	321.77	0.0025	0.006	0.63	0.06	0.09
J024-J023	J024	J023	8	153.56	0.0015	0.002	0.38	0.04	0.06
J025-J024	J025	J024	8	172.31	0.0085	0.000	0.00	0.00	0.00
J026-J023	J026	J023	8	160.02	0.0041	0.003	0.58	0.03	0.05
J027-J004	J027	J004	8	15.20	0.0053	0.041	1.46	0.12	0.18
J028A-J004	J028A	J004	8	337.47	0.0142	0.007	1.23	0.04	0.06
J028-J027	J028	J027	8	309.10	0.0040	0.041	1.33	0.13	0.19
J029-J028	J029	J028	8	161.23	0.0030	0.038	1.17	0.13	0.20
J030-J029	J030	J029	8	232.61	0.0024	0.037	1.07	0.14	0.21
J031-J030	J031	J030	8	261.61	0.0020	0.028	0.93	0.13	0.19
J032-J031	J032	J031	8	332.51	0.0024	0.028	0.99	0.12	0.18
J033-J032	J033	J032	8	355.38	0.0024	0.024	0.94	0.11	0.17
J034-J033	J034	J033	8	362.99	0.0024	0.021	0.92	0.11	0.16
J035-J034	J035	J034	8	49.63	0.0202	0.019	1.85	0.06	0.09
J036-J035	J036	J035	8	352.08	0.0030	0.019	0.94	0.09	0.14
J037-J036	J037	J036	8	307.32	0.0024	0.014	0.80	0.09	0.13
J038-J037	J038	J037	8	153.47	0.0030	0.010	0.80	0.07	0.11
J039-J030	J039	J030	8	187.47	0.0025	0.009	0.72	0.07	0.11
J040-J039	J040	J039	8	250.60	0.0024	0.008	0.69	0.07	0.10
J041-J040	J041	J040	8	257.35	0.0024	0.005	0.57	0.05	0.08
J042-I079	J042	1079	8	302.12	0.0036	0.135	1.80	0.24	0.37
J043-J042	J043	J042	8	106.17	0.0036	0.121	1.74	0.23	0.35
J044-J043	J044	J043	8	246.14	0.0037	0.115	1.73	0.22	0.34
J045-J044	J045	J044	8	331.64	0.0036	0.081	1.55	0.19	0.28
J046-J045	J046	J045	8	101.06	0.0036	0.071	1.50	0.18	0.26
J047-J046	J047	J046	8	245.47	0.0024	0.019	0.88	0.10	0.15
J048-J047	J048	J047	8	257.53	0.0024	0.014	0.81	0.09	0.13
J049-J048	J049	J048	8	350.19	0.0024	0.014	0.81	0.09	0.13
J050-J049	J050	J049	8	200.23	0.0024	0.007	0.64	0.06	
J051-J044	J051	J044	8	302.97	0.0024	0.028	0.99	0.12	
J052-J051	J052	J051	8	301.14	0.0024	0.021	0.91	0.10	
J053-J052	J053	J052	8	353.90	0.0021	0.011	0.71	0.08	
J054-J053	J054	J053	8	199.03	0.0021	0.011	0.66	0.06	
J054-J053 J055-J052	J055	J053 J052	8	155.51	0.0024	0.007	0.52	0.05	0.03
7077-1027	בכטו	JUJZ	0	155.51	0.0023	0.003	0.52	0.05	0.07

Model Results - Existing Peak Wet Weather Flow (PWWF) Scenario

1057-1056				l Results - Existii		veather Fio			_	
1955-1044 1956 1944 8	Pipe ID				•	Slope	_	•		d/D
1058-1057 1058 1057 8	J056-J044				-	0.0045			• •	0.08
1059-1057	J057-J056	J057	J056	8	318.68	0.0027	0.003	0.52	0.04	0.06
1966-1042	J058-J057	J058	J057	8	224.51	0.0057	0.001	0.51	0.02	0.03
1961-1060	J059-J057	J059	J057	8	248.31	0.0037	0.001	0.40	0.02	0.03
1961-1060	J060-J042	J060	J042	8	300.82	0.0024	0.014	0.81	0.09	0.13
1962-1061		1								
1963-1962										
1964-1043		1								
1065-1064 1065 1066 1065 1066 1065 1066 1065 1066 1065 1066 1065 1066 1065 1066 1065 1066 1067 1066 1067 1066 1067 1066 1067 1066 1067 1066 1067 1066 1067 1066 1067 1066 1067 1066 1067 1066 1067 1066 1067 1066 1067 1066 1068 1066 1068 1066 1068 1066 1068 1066 1068 1066 1068 1066 1068 1066 1068 1066 1068 1066 1068 1069 10		+								
1966-1965 1966 1965 1966 1966 1966 1966 1966 1966 1966 1966 1966 1966 1968 1966 1968 1969 1969 19										
1967-1966		1								
			1							
1069-1068		1	1							
1070-1069		+	1							
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K015-K014 K015 K014 8 133.12 0.0025 0.026 0.98 0.12 0.18 K016-K015 K016 K015 8 128.02 0.0024 0.025 0.96 0.11 0.17 K017-K016 K017 K016 8 301.15 0.0024 0.025 0.96 0.12 0.17 K018-K017 K018 K017 8 298.64 0.0024 0.018 0.87 0.10 0.15 K019-K018 K019 K018 8 278.75 0.0181 0.011 1.50 0.05 0.07 K020-K013 K020 K013 8 359.70 0.0034 0.012 0.87 0.07 0.11 K021-K020 K021 K020 8 358.42 0.0034 0.007 0.74 0.06 0.09 K022-K021 K022 K021 8 361.29 0.0100 0.001 0.62 0.02 0.03 K024-K025 K024 8		1	+							0.21
K016-K015 K016 K015 8 128.02 0.0024 0.025 0.96 0.11 0.17 K017-K016 K017 K016 8 301.15 0.0024 0.025 0.96 0.12 0.17 K018-K017 K018 K017 8 298.64 0.0024 0.018 0.87 0.10 0.15 K019-K018 K019 K018 8 278.75 0.0181 0.011 1.50 0.05 0.07 K020-K013 K020 K013 8 359.70 0.0034 0.012 0.87 0.07 0.11 K021-K020 K021 K020 8 358.42 0.0034 0.007 0.74 0.06 0.09 K022-K021 K022 K021 8 361.29 0.0100 0.001 0.62 0.02 0.03 K023-K024 K023 K024 8 288.48 0.0032 0.009 0.79 0.07 0.10 K024-K025 K024 K025 </td <td></td> <td></td> <td>-</td> <td></td> <td></td> <td>0.0024</td> <td></td> <td>0.98</td> <td>0.12</td> <td>0.18</td>			-			0.0024		0.98	0.12	0.18
K017-K016 K017 K016 8 301.15 0.0024 0.025 0.96 0.12 0.17 K018-K017 K018 K017 8 298.64 0.0024 0.018 0.87 0.10 0.15 K019-K018 K019 K018 8 278.75 0.0181 0.011 1.50 0.05 0.07 K020-K013 K020 K013 8 359.70 0.0034 0.012 0.87 0.07 0.11 K021-K020 K021 K020 8 358.42 0.0034 0.007 0.74 0.06 0.09 K022-K021 K022 K021 8 361.29 0.0100 0.001 0.62 0.02 0.03 K023-K024 K023 K024 8 288.48 0.0032 0.009 0.79 0.07 0.10 K024-K025 K024 K025 8 282.86 0.0032 0.014 0.90 0.08 0.12 K025-K011 K025 K026 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.18</td>										0.18
K018-K017 K018 K017 8 298.64 0.0024 0.018 0.87 0.10 0.15 K019-K018 K019 K018 8 278.75 0.0181 0.011 1.50 0.05 0.07 K020-K013 K020 K013 8 359.70 0.0034 0.012 0.87 0.07 0.11 K021-K020 K021 K020 8 358.42 0.0034 0.007 0.74 0.06 0.09 K022-K021 K022 K021 8 361.29 0.0100 0.001 0.62 0.02 0.03 K023-K024 K023 K024 8 288.48 0.0032 0.009 0.79 0.07 0.10 K024-K025 K024 K025 8 282.86 0.0032 0.014 0.90 0.08 0.12 K025-K011 K025 K011 8 290.40 0.0032 0.019 0.97 0.09 0.14 K026-K025 K026 K025 </td <td></td> <td>K016</td> <td>K015</td> <td>8</td> <td></td> <td>0.0024</td> <td></td> <td>0.96</td> <td>0.11</td> <td>0.17</td>		K016	K015	8		0.0024		0.96	0.11	0.17
K019-K018 K019 K018 8 278.75 0.0181 0.011 1.50 0.05 0.07 K020-K013 K020 K013 8 359.70 0.0034 0.012 0.87 0.07 0.11 K021-K020 K021 K020 8 358.42 0.0034 0.007 0.74 0.06 0.09 K022-K021 K022 K021 8 361.29 0.0100 0.001 0.62 0.02 0.03 K023-K024 K023 K024 8 288.48 0.0032 0.009 0.79 0.07 0.10 K024-K025 K024 K025 8 282.86 0.0032 0.014 0.90 0.08 0.12 K025-K011 K025 K011 8 290.40 0.0032 0.019 0.97 0.09 0.14 K026-K025 K026 K025 8 201.10 0.0032 0.001 0.42 0.03 0.04 K027-K024 K027 K024 </td <td>K017-K016</td> <td>K017</td> <td>K016</td> <td>8</td> <td>301.15</td> <td>0.0024</td> <td>0.025</td> <td>0.96</td> <td>0.12</td> <td>0.17</td>	K017-K016	K017	K016	8	301.15	0.0024	0.025	0.96	0.12	0.17
K020-K013 K020 K013 8 359.70 0.0034 0.012 0.87 0.07 0.11 K021-K020 K021 K020 8 358.42 0.0034 0.007 0.74 0.06 0.09 K022-K021 K022 K021 8 361.29 0.0100 0.001 0.62 0.02 0.03 K023-K024 K023 K024 8 288.48 0.0032 0.009 0.79 0.07 0.10 K024-K025 K024 K025 8 282.86 0.0032 0.014 0.90 0.08 0.12 K025-K011 K025 K011 8 290.40 0.0032 0.019 0.97 0.09 0.14 K026-K025 K026 K025 8 201.10 0.0032 0.001 0.42 0.03 0.04 K027-K024 K027 K024 8 197.24 0.0033 0.002 0.52 0.03 0.05	K018-K017	K018	K017	8	298.64	0.0024	0.018	0.87	0.10	0.15
K021-K020 K021 K020 8 358.42 0.0034 0.007 0.74 0.06 0.09 K022-K021 K022 K021 8 361.29 0.0100 0.001 0.62 0.02 0.03 K023-K024 K023 K024 8 288.48 0.0032 0.009 0.79 0.07 0.10 K024-K025 K024 K025 8 282.86 0.0032 0.014 0.90 0.08 0.12 K025-K011 K025 K011 8 290.40 0.0032 0.019 0.97 0.09 0.14 K026-K025 K026 K025 8 201.10 0.0032 0.001 0.42 0.03 0.04 K027-K024 K027 K024 8 197.24 0.0033 0.002 0.52 0.03 0.05	K019-K018	K019	K018	8	278.75	0.0181	0.011	1.50		0.07
K022-K021 K022 K021 8 361.29 0.0100 0.001 0.62 0.02 0.03 K023-K024 K023 K024 8 288.48 0.0032 0.009 0.79 0.07 0.10 K024-K025 K024 K025 8 282.86 0.0032 0.014 0.90 0.08 0.12 K025-K011 K025 K011 8 290.40 0.0032 0.019 0.97 0.09 0.14 K026-K025 K026 K025 8 201.10 0.0032 0.001 0.42 0.03 0.04 K027-K024 K027 K024 8 197.24 0.0033 0.002 0.52 0.03 0.05	K020-K013	K020	K013	8	359.70	0.0034	0.012	0.87	0.07	0.11
K023-K024 K023 K024 8 288.48 0.0032 0.009 0.79 0.07 0.10 K024-K025 K024 K025 8 282.86 0.0032 0.014 0.90 0.08 0.12 K025-K011 K025 K011 8 290.40 0.0032 0.019 0.97 0.09 0.14 K026-K025 K026 K025 8 201.10 0.0032 0.001 0.42 0.03 0.04 K027-K024 K027 K024 8 197.24 0.0033 0.002 0.52 0.03 0.05	K021-K020		K020	8	358.42	0.0034	0.007	0.74	0.06	0.09
K024-K025 K024 K025 8 282.86 0.0032 0.014 0.90 0.08 0.12 K025-K011 K025 K011 8 290.40 0.0032 0.019 0.97 0.09 0.14 K026-K025 K026 K025 8 201.10 0.0032 0.001 0.42 0.03 0.04 K027-K024 K027 K024 8 197.24 0.0033 0.002 0.52 0.03 0.05	K022-K021	K022	K021	8	361.29	0.0100	0.001	0.62	0.02	0.03
K025-K011 K025 K011 8 290.40 0.0032 0.019 0.97 0.09 0.14 K026-K025 K026 K025 8 201.10 0.0032 0.001 0.42 0.03 0.04 K027-K024 K027 K024 8 197.24 0.0033 0.002 0.52 0.03 0.05	K023-K024	K023	K024	8	288.48	0.0032	0.009	0.79	0.07	0.10
K026-K025 K026 K025 8 201.10 0.0032 0.001 0.42 0.03 0.04 K027-K024 K027 K024 8 197.24 0.0033 0.002 0.52 0.03 0.05	K024-K025	K024	K025	8	282.86	0.0032	0.014	0.90	0.08	0.12
K027-K024 K027 K024 8 197.24 0.0033 0.002 0.52 0.03 0.05	K025-K011	K025	K011	8	290.40	0.0032	0.019	0.97	0.09	0.14
	K026-K025	K026	K025	8	201.10	0.0032	0.001	0.42	0.03	0.04
	K027-K024	K027	K024	8	197.24	0.0033	0.002	0.52	0.03	0.05
	K028-K023	K028	K023	8	201.74	0.0032	0.003	0.53	0.04	0.05

Model Results - Existing Peak Wet Weather Flow (PWWF) Scenario

CO29-E012 RO29 E012 8 828-792 0.0031 0.010 0.79 0.07		F		Results - Existii		vedener me			Matau Danth	
RO39-E012 RO39 E012 8 287-92 D.0031 D.010 D.79 D.07 RO30-E001 RO30-E001 RO31-E001 RO31-E001 RO31-E001 RO31-E003 RO31 RO31 RO31 RO32 RO33 RO32 RO32 RO33 RO32 RO33 RO32 RO33 RO32 RO33 RO32 RO34 RO33 RO32 RO34 RO33 RO32 RO34 RO33 RO32 RO34 RO34 RO33 RO34 RO33 RO34 RO34 RO35 RO35 RO35 RO34 RO35 RO35	Pipe ID				_	Slope		•		d/D
\$\begin{array}{c c c c c c c c c c c c c c c c c c c									• •	
Month Mont		1	1							0.10
K032-K031		1								0.20
K033-K032 K033 K032 8 349.69 0.0006 0.014 0.50 0.12										0.16
K934-K813			1							0.15
R035-K034 K035 K036 K035 K036 K035 R036 K035 R036 K035 R036 K035 R039 R038 R039 R038 R039 R040 K039 R040 K032 R040 R0	-									0.18
R035-R035 R036 R035 R038 R036-R037 R039-R038 R039 R038 R039 R038 R039 R038 R039 R039 R039 R030 R039										0.19
R039-1038 R039 R038 R039 R038 R0307 R040-R039 R040 R039 R039 R039 R039 R0308 R0308		1								0.17
K040-K0309 K040 K039 8 253.98 0.0045 0.008 0.85 0.06 K812-L032 K812 L032 8 318.40 0.0038 0.032 1.22 0.12 K813-K812 K813 K812 8 338.95 0.0052 0.032 1.35 0.11 (1.001-L001 L001A L001 8 128.50 0.0055 0.033 1.40 0.11 (1.001-L001 L001A L001 8 128.50 0.0086 0.002 0.69 0.03 (1.001-L002 L001 L002 8 252.90 0.0055 0.033 1.40 0.11 (1.002-L003 L002 L003 8 177.56 0.0094 0.033 1.68 0.10 (1.003-K806 L003 K806 8 129.94 0.0031 0.047 1.26 0.15 (1.001-L032 L010 L032 8 299.86 0.0018 0.019 0.80 0.11 (1.011-L010 L011 L010 L011 L010 8 104.63 0.0030 0.019 0.95 0.10 (1.012-L011 L011 L011 L011 R 94.44 0.0037 0.013 0.92 0.08 (1.013-F011 L013 F011 R 206.45 0.0032 0.007 0.71 0.06 (1.015-L014 L015 L014 K023 R 305.05 0.0096 0.004 0.90 0.04 (1.015-L014 L015 L014 R 201.37 0.0032 0.007 0.71 0.06 (1.015-L014 L015 L014 R 201.37 0.0032 0.007 0.04 0.015-L014 L015 L014 R 201.37 0.0032 0.007 0.04 0.015-L014 L015 L014 R 201.37 0.0032 0.000 0.04 0.03 0.014 0.01										0.17
R812-L032	-	ł								0.10
R813-K812		ł								0.09
DOIAH - LOO1		1	1							0.17
D01-1002			1							0.16
L002-L003	-									0.04
1003-K806										0.16
D10-1032		1	1							0.14
COLOR										0.22
L012-L011	L010-L032	L010	L032	8	299.86	0.0018	0.019	0.80	0.11	0.16
L013-F011	L011-L010	L011	L010	8	104.63	0.0030	0.019	0.95	0.10	0.14
COLON COLO	L012-L011	L012	L011	8	94.44	0.0037	0.013	0.92	0.08	0.11
Dis-Lo14	L013-F011	L013	F011	8	206.45			0.71	0.06	0.09
1016-1001	L014-K023	L014	K023	8	305.05	0.0096	0.004	0.90	0.04	0.05
COLOR-1003	L015-L014	L015	L014	8	201.37	0.0032	0.002	0.49	0.03	0.05
Collection	L016-L001	L016	L001	8	453.04	0.0070	0.018	1.27	0.08	0.12
COLON COLO		L017	L003	8		0.0040	0.014	0.96	0.08	0.11
LO20-L803 LO20 L803 8	L018-L017	L018	L017	8	156.46	0.0041	0.014	0.97	0.08	0.11
CO21-LO20	L019-L018	L019	L018	8	163.83	0.0075	0.014	1.19	0.07	0.10
L022-L021	L020-L803	L020	L803	8	211.78	0.0024	0.102	1.44	0.23	0.35
L023-L020	L021-L020	L021	L020	8	211.19	0.0023	0.010	0.71	0.07	0.11
L024-L023	L022-L021	L022	L021	8	64.73	0.0029	0.003	0.56	0.04	0.06
L025-L024	L023-L020	L023	L020	8	338.77	0.0024	0.085	1.36	0.21	0.32
L026-L025	L024-L023	L024	L023	8	207.76	0.0024	0.069	1.28	0.19	0.29
L027-L026 L027 L026 8 289.85 0.0383 0.016 2.20 0.05 L028-L027 L028 L027 8 90.64 0.0097 0.016 1.37 0.07 L029-L026 L029 L026 8 326.23 0.0022 0.027 0.95 0.12 L030-L029 L030 L029 8 346.29 0.0040 0.023 1.12 0.10 L031A-L031 L031A L031 8 321.18 0.0034 0.008 0.76 0.06 L031B-L031A L031B L031A 8 232.58 0.0047 0.003 0.67 0.04 L031-L023 L031 L023 8 28.42 0.0795 0.016 2.84 0.04 L032-L032A L032 L032A 8 48.96 0.1007 0.051 4.41 0.07 L804-L803 L804 L803 8 118.93 0.0119 0.007 1.12 0.04 L8	L025-L024	L025	L024	8	67.35	0.0336	0.064	3.21	0.10	0.14
L028-L027 L028 L027 8 90.64 0.0097 0.016 1.37 0.07 L029-L026 L029 L026 8 326.23 0.0022 0.027 0.95 0.12 L030-L029 L030 L029 8 346.29 0.0040 0.023 1.12 0.10 L031A-L031 L031A L031 8 321.18 0.0034 0.008 0.76 0.06 L031B-L031A L031B L031A 8 232.58 0.0047 0.003 0.67 0.04 L031-L023 L031 L023 8 28.42 0.0795 0.016 2.84 0.04 L032-L032A L032 L032A 8 48.96 0.1007 0.051 4.41 0.07 L803-L007 L803 L007 8 196.58 0.0124 0.109 2.64 0.16 L804-L803 L804 L803 8 118.93 0.0119 0.007 0.60 0.06 L8	L026-L025	L026	L025	8	110.72	0.0098	0.064	2.08	0.13	0.20
LO29-LO26 LO29 LO26 8 326.23 0.0022 0.027 0.95 0.12 LO30-LO29 LO30 LO29 8 346.29 0.0040 0.023 1.12 0.10 LO31A-LO31 LO31A LO31 8 321.18 0.0034 0.008 0.76 0.06 LO31B-LO31A LO31B LO31A 8 232.58 0.0047 0.003 0.67 0.04 LO31-LO23 LO31 LO23 8 28.42 0.0795 0.016 2.84 0.04 L032-L032A LO32 LO32A 8 48.96 0.1007 0.051 4.41 0.07 L803-L007 L803 L007 8 196.58 0.0124 0.109 2.64 0.16 L804-L803 L804 L803 8 118.93 0.0119 0.007 1.12 0.04 L805-L804 L805 L804 8 322.07 0.0020 0.007 0.60 0.06 L	L027-L026	L027	L026	8	289.85	0.0383	0.016	2.20	0.05	0.07
L030-L029 L030 L029 8 346.29 0.0040 0.023 1.12 0.10 L031A-L031 L031A L031 8 321.18 0.0034 0.008 0.76 0.06 L031B-L031A L031B L031A 8 232.58 0.0047 0.003 0.67 0.04 L031-L023 L031 L023 8 28.42 0.0795 0.016 2.84 0.04 L032-L032A L032 L032A 8 48.96 0.1007 0.051 4.41 0.07 L803-L007 L803 L007 8 196.58 0.0124 0.109 2.64 0.16 L804-L803 L804 L803 8 118.93 0.0119 0.007 1.12 0.04 L805-L804 L805 L804 8 322.07 0.0020 0.007 0.60 0.06 L806-L805 L806 L805 8 318.88 0.0020 0.003 0.47 0.04 M	L028-L027	L028	L027	8	90.64	0.0097	0.016	1.37	0.07	0.10
L031A-L031 L031A L031 8 321.18 0.0034 0.008 0.76 0.06 L031B-L031A L031B L031A 8 232.58 0.0047 0.003 0.67 0.04 L031-L023 L031 L023 8 28.42 0.0795 0.016 2.84 0.04 L032-L032A L032 L032A 8 48.96 0.1007 0.051 4.41 0.07 L803-L007 L803 L007 8 196.58 0.0124 0.109 2.64 0.16 L804-L803 L804 L803 8 118.93 0.0119 0.007 1.12 0.04 L805-L804 L805 L806 L805 8 318.88 0.0020 0.007 0.60 0.06 L806-L805 L806 L805 8 318.88 0.0020 0.003 0.47 0.04 M001-H023 M001 H023 8 79.52 0.0021 0.140 1.50 0.29	L029-L026		L026	8		0.0022				0.19
L031B-L031A L031B L031A 8 232.58 0.0047 0.003 0.67 0.04 L031-L023 L031 L023 8 28.42 0.0795 0.016 2.84 0.04 L032-L032A L032 L032A 8 48.96 0.1007 0.051 4.41 0.07 L803-L007 L803 L007 8 196.58 0.0124 0.109 2.64 0.16 L804-L803 L804 L803 8 118.93 0.0119 0.007 1.12 0.04 L805-L804 L805 L804 8 322.07 0.0020 0.007 0.60 0.06 L806-L805 L806 L805 8 318.88 0.0020 0.003 0.47 0.04 M001-H023 M001 H023 8 79.52 0.0021 0.140 1.50 0.29 M002-M001 M002 M001 8 250.41 0.0024 0.137 1.56 0.28 M003	L030-L029	L030	L029	8	346.29	0.0040	0.023	1.12	0.10	0.15
L031-L023 L031 L023 8 28.42 0.0795 0.016 2.84 0.04 L032-L032A L032 L032A 8 48.96 0.1007 0.051 4.41 0.07 L803-L007 L803 L007 8 196.58 0.0124 0.109 2.64 0.16 L804-L803 L804 L803 8 118.93 0.0119 0.007 1.12 0.04 L805-L804 L805 L804 8 322.07 0.0020 0.007 0.60 0.06 L806-L805 L806 L805 8 318.88 0.0020 0.003 0.47 0.04 M001-H023 M001 H023 8 79.52 0.0021 0.140 1.50 0.29 M002-M001 M002 M001 8 250.41 0.0024 0.137 1.56 0.28 M003-M002 M003 M004 8 297.92 0.0024 0.129 1.52 0.27 M004-M00	L031A-L031	L031A	L031	8	321.18	0.0034	0.008	0.76	0.06	0.09
L032-L032A L032 L032A 8 48.96 0.1007 0.051 4.41 0.07 L803-L007 L803 L007 8 196.58 0.0124 0.109 2.64 0.16 L804-L803 L804 L803 8 118.93 0.0119 0.007 1.12 0.04 L805-L804 L805 L804 8 322.07 0.0020 0.007 0.60 0.06 L806-L805 L806 L805 8 318.88 0.0020 0.003 0.47 0.04 M001-H023 M001 H023 8 79.52 0.0021 0.140 1.50 0.29 M002-M001 M002 M001 8 250.41 0.0024 0.137 1.56 0.28 M003-M002 M003 M002 8 297.92 0.0024 0.129 1.52 0.27 M004-M003 M004 M003 8 103.43 0.0044 0.126 1.89 0.22 M006-M0	L031B-L031A	L031B	L031A	8	232.58	0.0047	0.003	0.67	0.04	0.06
L803-L007 L803 L007 8 196.58 0.0124 0.109 2.64 0.16 L804-L803 L804 L803 8 118.93 0.0119 0.007 1.12 0.04 L805-L804 L805 L804 8 322.07 0.0020 0.007 0.60 0.06 L806-L805 L806 L805 8 318.88 0.0020 0.003 0.47 0.04 M001-H023 M001 H023 8 79.52 0.0021 0.140 1.50 0.29 M002-M001 M002 M001 8 250.41 0.0024 0.137 1.56 0.28 M003-M002 M003 M002 8 297.92 0.0024 0.129 1.52 0.27 M004-M003 M004 M003 8 103.43 0.0044 0.126 1.89 0.22 M005-M004 M005 M006 M005 8 359.65 0.0103 0.026 1.63 0.08 <tr< td=""><td>L031-L023</td><td>L031</td><td>L023</td><td>8</td><td>28.42</td><td>0.0795</td><td>0.016</td><td>2.84</td><td>0.04</td><td>0.06</td></tr<>	L031-L023	L031	L023	8	28.42	0.0795	0.016	2.84	0.04	0.06
L804-L803 L804 L803 8 118.93 0.0119 0.007 1.12 0.04 L805-L804 L805 L804 8 322.07 0.0020 0.007 0.60 0.06 L806-L805 L806 L805 8 318.88 0.0020 0.003 0.47 0.04 M001-H023 M001 H023 8 79.52 0.0021 0.140 1.50 0.29 M002-M001 M002 M001 8 250.41 0.0024 0.137 1.56 0.28 M003-M002 M003 M002 8 297.92 0.0024 0.129 1.52 0.27 M004-M003 M004 M003 8 103.43 0.0044 0.126 1.89 0.22 M005-M004 M005 M004 8 230.63 0.0023 0.116 1.48 0.25 M006-M005 M006 M007 8 359.65 0.0103 0.026 1.63 0.08 M008-M00	L032-L032A	L032	L032A	8	48.96	0.1007	0.051	4.41	0.07	0.10
L805-L804 L805 L804 8 322.07 0.0020 0.007 0.60 0.06 L806-L805 L806 L805 8 318.88 0.0020 0.003 0.47 0.04 M001-H023 M001 H023 8 79.52 0.0021 0.140 1.50 0.29 M002-M001 M002 M001 8 250.41 0.0024 0.137 1.56 0.28 M003-M002 M003 M002 8 297.92 0.0024 0.129 1.52 0.27 M004-M003 M004 M003 8 103.43 0.0044 0.126 1.89 0.22 M005-M004 M005 M004 8 230.63 0.0023 0.116 1.48 0.25 M006-M005 M006 M005 8 359.65 0.0103 0.026 1.63 0.08 M007-M006 M007 M006 8 91.46 0.0040 0.020 1.08 0.09 M008-M007	L803-L007	L803	L007	8	196.58	0.0124	0.109	2.64	0.16	0.24
L806-L805 L806 L805 8 318.88 0.0020 0.003 0.47 0.04 M001-H023 M001 H023 8 79.52 0.0021 0.140 1.50 0.29 M002-M001 M002 M001 8 250.41 0.0024 0.137 1.56 0.28 M003-M002 M003 M002 8 297.92 0.0024 0.129 1.52 0.27 M004-M003 M004 M003 8 103.43 0.0044 0.126 1.89 0.22 M005-M004 M005 M004 8 230.63 0.0023 0.116 1.48 0.25 M006-M005 M006 M005 8 359.65 0.0103 0.026 1.63 0.08 M007-M006 M007 M006 8 91.46 0.0040 0.020 1.08 0.09 M008-M007 M008 M007 8 59.49 0.0414 0.006 1.68 0.03	L804-L803	L804	L803	8	118.93	0.0119	0.007	1.12	0.04	0.06
M001-H023 M001 H023 8 79.52 0.0021 0.140 1.50 0.29 M002-M001 M002 M001 8 250.41 0.0024 0.137 1.56 0.28 M003-M002 M003 M002 8 297.92 0.0024 0.129 1.52 0.27 M004-M003 M004 M003 8 103.43 0.0044 0.126 1.89 0.22 M005-M004 M005 M004 8 230.63 0.0023 0.116 1.48 0.25 M006-M005 M006 M005 8 359.65 0.0103 0.026 1.63 0.08 M007-M006 M007 M006 8 91.46 0.0040 0.020 1.08 0.09 M008-M007 M008 M007 8 59.49 0.0414 0.006 1.68 0.03	L805-L804	L805	L804	8	322.07	0.0020	0.007	0.60	0.06	0.10
M002-M001 M002 M001 8 250.41 0.0024 0.137 1.56 0.28 M003-M002 M003 M002 8 297.92 0.0024 0.129 1.52 0.27 M004-M003 M004 M003 8 103.43 0.0044 0.126 1.89 0.22 M005-M004 M005 M004 8 230.63 0.0023 0.116 1.48 0.25 M006-M005 M006 M005 8 359.65 0.0103 0.026 1.63 0.08 M007-M006 M007 M006 8 91.46 0.0040 0.020 1.08 0.09 M008-M007 M008 M007 8 59.49 0.0414 0.006 1.68 0.03	L806-L805	L806	L805	8	318.88	0.0020	0.003	0.47	0.04	0.06
M003-M002 M003 M002 8 297.92 0.0024 0.129 1.52 0.27 M004-M003 M004 M003 8 103.43 0.0044 0.126 1.89 0.22 M005-M004 M005 M004 8 230.63 0.0023 0.116 1.48 0.25 M006-M005 M006 M005 8 359.65 0.0103 0.026 1.63 0.08 M007-M006 M007 M006 8 91.46 0.0040 0.020 1.08 0.09 M008-M007 M008 M007 8 59.49 0.0414 0.006 1.68 0.03	M001-H023	M001	H023	8	79.52	0.0021	0.140	1.50	0.29	0.43
M004-M003 M004 M003 8 103.43 0.0044 0.126 1.89 0.22 M005-M004 M005 M004 8 230.63 0.0023 0.116 1.48 0.25 M006-M005 M006 M005 8 359.65 0.0103 0.026 1.63 0.08 M007-M006 M007 M006 8 91.46 0.0040 0.020 1.08 0.09 M008-M007 M008 M007 8 59.49 0.0414 0.006 1.68 0.03	M002-M001	M002	M001	8	250.41	0.0024	0.137	1.56	0.28	0.41
M005-M004 M005 M004 8 230.63 0.0023 0.116 1.48 0.25 M006-M005 M006 M005 8 359.65 0.0103 0.026 1.63 0.08 M007-M006 M007 M006 8 91.46 0.0040 0.020 1.08 0.09 M008-M007 M008 M007 8 59.49 0.0414 0.006 1.68 0.03	M003-M002	M003	M002	8	297.92	0.0024	0.129	1.52	0.27	0.40
M006-M005 M006 M005 8 359.65 0.0103 0.026 1.63 0.08 M007-M006 M007 M006 8 91.46 0.0040 0.020 1.08 0.09 M008-M007 M008 M007 8 59.49 0.0414 0.006 1.68 0.03	M004-M003	M004	M003	8	103.43	0.0044	0.126	1.89	0.22	0.34
M007-M006 M007 M006 8 91.46 0.0040 0.020 1.08 0.09 M008-M007 M008 M007 8 59.49 0.0414 0.006 1.68 0.03	M005-M004	M005	M004	8	230.63	0.0023	0.116	1.48	0.25	0.38
M008-M007 M008 M007 8 59.49 0.0414 0.006 1.68 0.03	M006-M005	M006	M005	8	359.65	0.0103	0.026	1.63	0.08	0.12
M008-M007 M008 M007 8 59.49 0.0414 0.006 1.68 0.03	M007-M006	M007	M006	8	91.46	0.0040	0.020	1.08	0.09	0.14
	M008-M007	M008	M007			0.0414	0.006	1.68	0.03	0.04
M009-M007 M009 M007 8 162.34 0.0029 0.014 0.86 0.08	M009-M007	M009		8						0.13
M010-M009 M010 M009 8 213.81 0.0023 0.011 0.75 0.08	M010-M009	M010	M009	8		0.0023		0.75	0.08	0.12
M011-M010 M011 M010 8 328.18 0.0024 0.008 0.67 0.06	M011-M010	M011	M010			0.0024		0.67	0.06	0.10

Model Results - Existing Peak Wet Weather Flow (PWWF) Scenario

MO12-MO13				l Results - Existii		veather Fio				
M012-M011 M012 M011 8 120.73 0.005 0.008 0.87 0.05 0.08 0.01 0	Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
MO13-MO14 MO13 8 7249.71 0.305 0.006 1.54 0.33 0.36 0.006 0.306 0.	•					·			• •	•
M013-M013 M014 M013 S 78.79 0.0039 0.002 0.52 0.03 0.03 0.006 M015-M008 S 98.83 0.0065 0.006 0.88 0.05 0.07 M016-M005 M016 M005 S 66.98 0.0023 0.088 1.36 0.022 0.33 M017-M016 M017 M018 M017 S 238.51 0.0020 0.086 1.35 0.22 0.33 M017-M016 M018 M017 S 238.51 0.0020 0.085 1.35 0.22 0.33 M017-M018 M018 M019 S 238.51 0.0020 0.037 1.01 0.15 0.22 M019-M018 M019 M018 S 114.29 0.0024 0.006 0.61 0.06 0.00 0.00			1							
MOIS-MOOS MUSIS MUSIS MOOS 8 98.83 0.0065 0.006 0.88 0.05 0.05 0.006 MUSIS-MOOS MUSIS MUSIS MOSS 8 66.98 0.0023 0.088 1.36 0.022 0.33 MUSIS-MOOS MUSIS MUSIS MOSS 8 66.94 0.0023 0.088 1.36 0.022 0.33 MUSIS-MOOT MUSIS MUSIS MOSS 8 66.94 0.0023 0.088 1.36 0.022 0.33 MUSIS-MOOT MUSIS MUSIS MUSIS MOSS 9 0.0020 0.037 1.01 0.15 0.15 0.22 0.33 MUSIS-MOOT MUSIS 8 1.14.29 0.0024 0.006 0.61 0.06 0.06 0.00 MUSIS-MOOT MUSIS 8 1.14.29 0.0024 0.006 0.61 0.06 0.00 0.005 0.005 0.007 0.007 0.007 0.006 0.007 0.006 0.007 0.0			1							
MOIS-MOIS MOIS MOIS 8 66.98 0.0023 0.088 1.36 0.22 0.33										
MO17-M016 M017 M018 M017 S 238.51 0.0022 0.086 1.35 0.22 0.38 M018-M017 M018 M017 S 238.51 0.0020 0.037 1.01 0.15 0.22 M019-M018 M019 M018 S 114.29 0.0024 0.006 0.61 0.06 0.09 M020-M019 M020 M019 M020 S 147.14 0.0040 0.006 0.74 0.05 0.08 M022-M019 M020 M020 S 147.14 0.0040 0.006 0.74 0.05 0.08 M022-M017 M022 M017 S 216.73 0.0023 0.041 1.10 0.15 0.22 M023-M022 M022 M023 M022 S 197.36 0.0024 0.036 1.07 0.14 0.21 M024-M023 M024 M023 S 242.75 0.0021 0.028 0.95 0.13 0.19 M025-M024 M026 M024 S SS.89 0.0031 1.36 0.02 0.03 M026-M024 M026 M024 S SS.89 0.0031 1.36 0.02 0.03 M026-M024 M026 M024 S SS.89 0.0039 0.003 1.27 0.02 0.03 M026-M024 M027 M024 S SS.89 0.0039 0.003 1.27 0.02 0.03 M027-M024 M027 M024 S SS.89 0.0039 0.003 1.27 0.02 0.03 M027-M024 M027 M024 S SS.89 0.0024 0.025 0.022 0.044 0.11 0.16 M028-M027 M028 M027 S SS.80 0.0002 0.022 0.044 0.11 0.17 M028-M028 M029 M028 S SS.29 0.0021 0.022 0.044 0.11 0.16 M028-M028 M029 M028 S SS.29 0.0021 0.022 0.044 0.11 0.16 M028-M028 M029 M028 S SS.29 0.0024 0.002 0.022 0.044 0.11 0.16 M028-M028 M029 M028 S SS.29 0.0024 0.002 0.022 0.044 0.11 0.16 M028-M028 M029 M028 S SS.29 0.0024 0.002 0.024 0.014 0.025 0.024 0.025 0.024 0.025 0.024 0.025 0.024 0.025 0.024 0.025 0.024 0.025 0.024 0.025 0.024 0.025 0.024 0.025 0.024 0.025 0.024 0.025 0.024 0.025 0.024 0.025			1							
MOISHMOIT MOIS										
MO19-MO18 MO19 MO18 8			-							
MO23-MO20 MO21 MO20 MO21 MO20 S 147.14 0.0040 0.006 0.74 0.05 0.08 MO21-MO21 MO21 MO21 MO22 S 147.14 0.0040 0.006 0.74 0.05 0.08 MO22-MO17 MO22 MO17 S 216.73 0.0023 0.041 1.10 0.15 0.22 MO23-MO22 MO23 MO22 S 197.36 0.0024 0.036 1.07 0.14 0.21 MO24-MO23 MO24 MO23 S 242.75 0.0021 0.028 0.05 1.07 0.14 0.21 MO24-MO23 MO24 S S 82.75 0.0024 0.036 1.07 0.14 0.21 MO24-MO23 MO24 S S 82.75 0.0029 0.003 1.36 0.02 0.03 MO27-MO24 MO25 MO24 S S S S 0.099 0.003 1.36 0.02 0.03 MO27-MO24 MO25 MO24 S S S S 0.099 0.003 1.27 0.02 0.03 MO27-MO24 MO27 MO24 S S S S 0.0021 0.002 0.03 MO27-MO24 MO27 MO24 S S S S 0.0021 0.002 0.03 MO27-MO24 MO27 MO28 S 37.28 0.0021 0.022 0.94 0.11 0.16 MO28-MO28 MO27 MO28 S 37.28 0.0021 0.022 0.98 0.11 0.17 MO28-MO28 MO29 MO28 S 37.28 0.0024 0.002 0.02 0.88 0.11 0.17 MO28-MO28 MO29 MO28 S 37.28 0.0026 0.020 0.92 0.10 0.15 MO38-MO29 MO30 MO29 S 229.79 0.0024 0.007 0.66 0.06 0.09 MO32-MO29 MO30 MO29 S 229.79 0.0024 0.007 0.66 0.06 0.09 MO33-MO29 MO31 MO30 S 209.57 0.0024 0.007 0.66 0.05 0.			1							
MO21-MO20 MO21 MO20 8		M019	1			0.0024				0.09
MO23-M017 MO22 M017 8			1							0.03
MO23-MO22 MO23 MO22 8 197.36 0.0024 0.036 1.07 0.14 0.21										0.08
MO25-MO24 MO25 MO24 MO23 8 8242.75 O.0021 O.028 O.95 O.13 O.19 MO25-MO24 MO25 MO24 8 88.29 O.0399 O.003 1.36 O.02 O.03 MO27-MO24 MO26 MO24 8 85.67 O.0369 O.003 1.27 O.02 O.03 MO27-MO24 MO27 MO28 80.26 O.0021 O.022 O.94 O.11 O.16 MO28-MO27 MO28 MO27 8 80.26 O.0021 O.022 O.98 O.11 O.17 MO29-MO29 MO29 MO28 8 37.28 O.0026 O.020 O.92 O.10 O.15 MO29-MO29 MO30 MO29 8 229.79 O.0024 O.004 O.007 O.66 O.06 O.09 O.003 MO31 MO30 MO30 8 2095.77 O.0024 O.004 O.007 O.66 O.06 O.09 MO33-MO29 MO30 MO28 8 8 80.81 O.016 O.007 O.66 O.06 O.06 O.09 MO33-MO29 MO33 MO28 8 8 80.81 O.016 O.002 O.84 O.02 O.03 O.07 O.06 O.003			+							
MO25-MO24 MO25 MO24 8 88.29 0.0399 0.003 1.36 0.02 0.03 MO26-MO24 MO26 MO24 8 85.57 0.0369 0.003 1.77 0.02 0.03 0.003 1.77 0.02 0.03 0.003 1.77 0.02 0.03 0.003 0.002 0.003 0.	M023-M022	M023	1							0.21
MO2F-MO24 MO26 MO24 8 85.67 0.0369 0.003 1.27 0.02 0.03 MO27-MO24 MO27 MO28 MO27 MO28 8 177.64 0.0025 0.022 0.94 0.11 0.16 0.16 0.0028 MO27 MO28 MO27 8 8 80.26 0.0021 0.022 0.98 0.11 0.17 MO29-MO28 MO29 MO28 8 37.28 0.0026 0.020 0.92 0.10 0.15 MO30-MO29 MO30 MO29 8 229.79 0.0024 0.010 0.73 0.07 0.11 MO31-MO30 MO31 MO30 8 229.79 0.0024 0.010 0.73 0.07 0.11 MO31-MO30 MO31 MO30 8 229.79 0.0024 0.007 0.66 0.06 0.06 0.09 MO32-MO31 MO32 MO31 8 210.07 0.0024 0.004 0.55 0.05 0.07 MO33-MO28 MO33 MO28 8 80.18 0.0160 0.002 0.84 0.02 0.03 MO33-MO28 MO33 MO28 8 80.18 0.0160 0.002 0.84 0.02 0.03 MO34-MO29 MO34 MO29 8 156.56 0.0040 0.006 0.76 0.05 0.08 MO35-MO34 MO35 MO34 8 98.20 0.0040 0.006 0.75 0.05 0.08 MO35-MO34 MO35 MO36 MO38 8 347.08 0.024 0.022 0.93 0.11 0.16 MO37-MO36 MO37 MO36 8 127.11 0.0290 0.003 1.24 0.02 0.04 MO39-MO38 MO38 MO38 MO38 MO38 MO38 MO38 MO38 MO38 MO39 M			1							0.19
MO27-MO24 MO27 MO24 8 177.64 0.0025 0.022 0.94 0.11 0.16	M025-M024	M025			88.29	0.0399	0.003		0.02	0.03
MO28-MO27 MO28 MO27 8 80.26 0.0021 0.022 0.88 0.11 0.17 M030-M029 M030 M029 M030 M029 8 37.28 0.0026 0.020 0.92 0.10 0.15 M031-M030 M031 M030 8 229.79 0.0024 0.007 0.66 0.06 0.09 M031-M031 M031 M031 8 210.07 0.0024 0.004 0.55 0.05 0.07 M033-M028 M033 M028 8 80.18 0.0160 0.002 0.84 0.02 0.03 M034-M029 M034 M028 8 56.56 0.0040 0.006 0.76 0.05 0.08 M035-M034 M035 M034 8 98.20 0.0040 0.006 0.75 0.05 0.08 M035-M038 M036 M3 127.11 0.0220 0.93 0.11 0.16 0.02 M038-M036 M3	M026-M024	M026	1						0.02	0.03
M029-M028 M029 M028 8 37.28 0.0026 0.020 0.92 0.10 0.15 M030-M0029 M030 M029 8 229.79 0.0024 0.010 0.73 0.07 0.011 M031-M030 M031 M030 8 209.57 0.0024 0.007 0.66 0.06 0.09 M032-M031 M032 M031 8 210.07 0.0024 0.004 0.55 0.05 0.07 M033-M028 M033 M028 8 80.18 0.0160 0.002 0.84 0.02 0.03 M034-M029 M034 M029 8 156.56 0.0040 0.006 0.76 0.05 0.08 M035-M034 M035 M034 8 98.20 0.0040 0.006 0.75 0.05 0.08 M035-M034 M035 M038 8 347.08 0.0024 0.022 0.93 0.11 0.16 M037-M036 M038 M036 8 127.11 0.0290 0.003 1.24 0.02 0.04 M038-M036 M038 M036 8 207.42 0.0024 0.014 0.82 0.09 0.13 M039-M038 M039 M038 8 225.51 0.0024 0.011 0.75 0.08 0.12 M039-M040 M039 M038 8 225.51 0.0024 0.011 0.75 0.08 0.12 M041-M040 M041 M040 8 125.91 0.0041 0.003 0.63 0.04 0.06 0.06 M042-M040 M042 M040 8 109.35 0.0039 0.002 0.57 0.03 0.05 M044-M043 M044 M043 8 150.92 0.0020 0.022 0.86 0.11 0.17 0.15 0.23 0.34 M044-M043 M044 M043 8 118.39 0.0039 0.002 0.57 0.03 0.05 M048-M044 M045 M046 8 118.35 0.0039 0.002 0.57 0.03 0.05 M049-M048 M049 M049 8 118.39 0.0030 0.08 0.67 0.03 0.05 M049-M048 M049 M048 8 348.88 0.0046 0.008 0.86 0.06 0.09 0.05 M049-M048 M049 M048 8 348.88 0.0046 0.009 0.06										0.16
M030-M029 M030 M029 8 229.79 0.0024 0.010 0.73 0.07 0.11		M028						0.88	0.11	0.17
M031-M030 M031 M030 8 209.57 0.0024 0.007 0.66 0.06 0.09 M032-M031 M032 M031 8 210.07 0.0024 0.004 0.55 0.05 0.07 M033-M028 M033 M028 8 80.18 0.0160 0.002 0.84 0.02 0.03 M034-M029 M034 M029 8 156.56 0.0040 0.006 0.76 0.05 0.08 M035-M034 M035 M034 8 98.20 0.0040 0.006 0.75 0.05 0.08 M035-M034 M035 M034 8 98.20 0.0040 0.006 0.75 0.05 0.08 M035-M034 M035 M034 8 98.20 0.0040 0.002 0.93 0.11 0.16 M037-M036 M037 M036 8 127.11 0.0290 0.003 1.24 0.02 0.04 M038-M038 M038 M036 8 207.42 0.0024 0.014 0.82 0.09 0.13 M039-M038 M039 M038 8 225.51 0.0024 0.014 0.75 0.08 0.12 M040-M039 M040 M039 8 152.47 0.0040 0.008 0.82 0.06 0.09 M041-M040 M041 M040 8 125.91 0.0041 0.003 0.63 0.04 0.06 M043-H028 M043 H028 8 304.74 0.0013 0.072 1.05 0.23 0.34 M044-M043 M044 M043 8 150.92 0.0020 0.022 0.86 0.11 0.17 M045-M045 M046 M045 8 113.39 0.003 0.002 0.57 0.03 0.05 M048-M045 M046 M047 M046 8 111.85 0.0060 0.003 0.67 0.03 0.05 M048-M044 M048 M049 M048 8 68.54 0.014 0.002 0.78 0.02 0.03 M049-M048 M049 M048 8 68.54 0.014 0.002 0.78 0.02 0.03 M039-M038 M039 M040 M040 8 111.85 0.0060 0.003 0.67 0.03 0.05 M049-M048 M049 M048 8 68.54 0.014 0.002 0.78 0.02 0.03 M039-M038 M039 M040 M040 8 111.85 0.0060 0.003 0.67 0.03 0.05 M049-M048 M049 M048 8 68.54 0.0146 0.002 0.78 0.02 0.03 M039-M038 M039 M040	M029-M028	M029				0.0026	0.020	0.92		0.15
M032-M031 M032 M031 8 210.07 0.0024 0.004 0.55 0.05 0.07 M033-M028 M033 M028 8 80.18 0.0160 0.002 0.84 0.02 0.03 M034-M029 M034 M029 8 156.56 0.0040 0.006 0.76 0.05 0.08 M035-M034 M035 M034 8 98.20 0.0040 0.006 0.75 0.05 0.08 M036-M018 M036 M018 8 347.08 0.0024 0.022 0.93 0.11 0.16 M037-M036 M037 M036 8 127.11 0.0290 0.003 1.24 0.02 0.04 M038-M036 M038 M036 8 207.42 0.0024 0.014 0.82 0.09 0.13 M039-M038 M039 M038 8 225.51 0.0024 0.011 0.75 0.08 0.12 M040-M039 M040 M039 8 152.47 0.0040 0.008 0.82 0.06 0.09 M041-M040 M041 M040 8 125.91 0.0041 0.003 0.63 0.04 0.06 M042-M040 M042 M040 8 109.35 0.0039 0.002 0.57 0.03 0.05 M043-M028 M044 M043 8 328.8 30.074 0.013 0.072 1.05 0.23 0.34 M046-M045 M046 M045 8 32.88 0.0046 0.008 0.86 0.10 0.07 M047-M046 M045 M044 8 32.88 0.0046 0.008 0.86 0.10 0.07 M048-M044 M045 M046 8 113.39 0.0053 0.008 0.91 0.06 0.08 M048-M044 M045 M046 8 111.85 0.0060 0.003 0.67 0.03 0.05 M048-M044 M048 M048 8 68.54 0.0146 0.002 0.78 0.02 0.02 M059-M048 M049 M048 8 68.54 0.0146 0.002 0.78 0.02 0.03 M059-M048 M059 M048 8 68.54 0.0146 0.002 0.78 0.02 0.03 M059-M048 M059 M048 8 68.54 0.0146 0.002 0.78 0.02 0.03 M059-M048 M059 M058 8 175.18 0.0021 0.037 0.05 0.05 M059-M048 M059 M058 8 175.18 0.0021 0.037 0.05 0.05 M059-M059 M050 M051 M050 8 175.18 0.0021 0.037 0.05 0.05 M059-M058 M059 M058 8 175.18 0.0021 0.037 0.05 0.05 0.05 M059-M058 M059 M058 8 175.18 0.0021 0.037 0.05 0.05 0.05 M059-M058 M059 M058 8 175.18 0.0022 0.008 0.09 0.11 0.16 M059-	M030-M029	M030	M029	8	229.79	0.0024	0.010	0.73	0.07	0.11
M033-M028 M033 M028 8 80.18 0.0160 0.002 0.84 0.02 0.03 M034-M029 M034 M029 8 156.56 0.0040 0.006 0.76 0.05 0.08 M035-M034 M035 M034 8 98.20 0.0040 0.006 0.76 0.05 0.08 M036-M018 M036 M018 8 98.20 0.0040 0.006 0.75 0.05 0.08 M037-M036 M037 M036 8 127.11 0.0290 0.003 1.24 0.02 0.04 M038-M038 M038 M036 8 227.51 0.0024 0.011 0.75 0.08 0.12 M038-M038 M039 M038 8 152.47 0.0044 0.011 0.75 0.08 0.12 M041-M040 M041 M040 8 152.47 0.0041 0.003 0.63 0.04 0.06 M042-M040 M042 M040	M031-M030	M031	M030	8	209.57	0.0024	0.007	0.66	0.06	0.09
M034-M029 M034 M029 8 156.56 0.0040 0.006 0.76 0.05 0.08 M035-M034 M035 M034 8 98.20 0.0040 0.006 0.75 0.05 0.08 M035-M036 M036 M018 8 347.08 0.0024 0.022 0.93 0.11 0.16 M037-M036 M037 M036 8 127.11 0.0290 0.003 1.24 0.02 0.04 M038-M036 M038 M036 8 207.42 0.0024 0.014 0.82 0.09 0.13 M039-M038 M039 M038 8 225.51 0.0024 0.014 0.82 0.09 0.13 M039-M039 M040 M039 8 152.47 0.0040 0.008 0.82 0.06 0.09 M041-M040 M041 M040 8 125.91 0.0041 0.003 0.63 0.04 0.06 M042-M040 M042 M040 8 109.35 0.0039 0.002 0.57 0.03 0.05 M044-M043 M044 M043 8 304.74 0.0013 0.077 1.05 0.23 0.34 M044-M043 M044 M043 8 150.92 0.0020 0.022 0.86 0.11 0.47 M045-M044 M045 M044 8 32.88 0.0046 0.008 0.86 0.06 0.09 M046-M045 M046 M045 8 111.85 0.0066 0.003 0.67 0.03 0.05 M048-M044 M048 M049 M048 8 414.92 0.0044 0.014 1.00 0.08 0.11 M049-M048 M049 M048 8 86.54 0.0146 0.002 0.78 0.02 0.03 M051-M050 M051 M050 8 91.85 0.0039 0.003 0.57 0.03 0.05 M052-M050 M052 M050 8 91.85 0.0039 0.003 0.57 0.03 0.05 M053-M050 M052 M050 8 91.85 0.0039 0.003 0.57 0.03 0.05 M053-M053 M054 M053 8 264.07 0.0039 0.003 0.57 0.03 0.05 M053-M050 M052 M050 8 91.85 0.0039 0.003 0.57 0.03 0.05 M053-M050 M052 M050 8 91.85 0.0039 0.003 0.57 0.03 0.05 M053-M053 M054 M053 8 124.49 0.0024 0.037 1.02 0.14 0.22 M055-M054 M055 M054 8 175.18 0.0021 0.037 1.02 0.14 0.22 M056-M055 M056 M058 8 172.11 0.0024 0.033 0.59 0.04 0.05 M066-M055 M056 M058 8 172.11 0.0024 0.033 0.59 0.04 0.05 M066-M056 M066 M066 8 112.82 0.0023 0.008 0.69 0.07	M032-M031	M032	M031	8	210.07	0.0024	0.004	0.55	0.05	0.07
M035-M034 M035 M034 8 98.20 0.0040 0.006 0.75 0.05 0.08 M036-M018 M036 M018 8 347.08 0.0024 0.022 0.93 0.11 0.16 M037-M036 M037 M036 8 127.11 0.0290 0.003 1.24 0.02 0.04 M038-M036 M038 M036 8 207.42 0.0024 0.014 0.82 0.09 0.13 M039-M038 M039 M038 8 225.51 0.0024 0.011 0.75 0.08 0.12 M040-M039 M040 M039 8 152.47 0.0040 0.008 0.82 0.06 0.09 M041-M040 M041 M040 8 125.91 0.0041 0.003 0.63 0.04 0.05 M042-M040 M042 M040 8 125.91 0.0033 0.02 0.57 0.03 0.05 M044-M043 M044 M043 <td>M033-M028</td> <td>M033</td> <td>M028</td> <td>8</td> <td>80.18</td> <td></td> <td>0.002</td> <td>0.84</td> <td>0.02</td> <td>0.03</td>	M033-M028	M033	M028	8	80.18		0.002	0.84	0.02	0.03
M036-M018 M036 M018 8 347.08 0.0024 0.022 0.93 0.11 0.16 M037-M036 M037 M036 8 127.11 0.0290 0.003 1.24 0.02 0.04 M038-M038 M038 M036 8 207.42 0.0024 0.011 0.75 0.08 0.12 M039-M038 M039 M038 8 225.51 0.0024 0.011 0.75 0.08 0.12 M040-M039 M040 M039 8 152.47 0.0040 0.008 0.82 0.06 0.09 M041-M040 M041 M040 8 152.47 0.0041 0.003 0.63 0.04 0.06 M041-M040 M042 M040 8 109.35 0.0039 0.002 0.57 0.03 0.05 M044-M043 M044 M043 8 150.92 0.0020 0.022 0.86 0.11 0.17 M045-M044 M045 M044 </td <td>M034-M029</td> <td>M034</td> <td>M029</td> <td>8</td> <td>156.56</td> <td>0.0040</td> <td>0.006</td> <td>0.76</td> <td>0.05</td> <td>0.08</td>	M034-M029	M034	M029	8	156.56	0.0040	0.006	0.76	0.05	0.08
M037-M036 M037 M036 8 127.11 0.0290 0.003 1.24 0.02 0.04 M038-M036 M038 M036 8 207.42 0.0024 0.014 0.82 0.09 0.13 M039-M038 M039 M038 8 225.51 0.0024 0.011 0.75 0.08 0.12 M040-M039 M040 M039 8 152.47 0.0040 0.008 0.82 0.06 0.09 M041-M040 M041 M040 8 125.91 0.0041 0.003 0.63 0.04 0.06 M042-M040 M042 M040 8 193.35 0.0039 0.002 0.57 0.03 0.05 M043-H028 M043 H028 8 304.74 0.0013 0.072 1.05 0.23 0.34 M044-M043 M044 M043 8 150.92 0.0020 0.022 0.86 0.11 0.17 M045-M044 M045 M044 </td <td>M035-M034</td> <td>M035</td> <td>M034</td> <td>8</td> <td>98.20</td> <td>0.0040</td> <td>0.006</td> <td>0.75</td> <td>0.05</td> <td>0.08</td>	M035-M034	M035	M034	8	98.20	0.0040	0.006	0.75	0.05	0.08
M038-M036 M038 M036 8 207.42 0.0024 0.014 0.82 0.09 0.13 M039-M038 M039 M038 8 225.51 0.0024 0.011 0.75 0.08 0.12 M040-M039 M040 M039 8 152.47 0.0040 0.008 0.82 0.06 0.09 M041-M040 M040 M040 8 125.91 0.0041 0.003 0.63 0.04 0.06 M042-M040 M042 M040 8 193.35 0.0039 0.002 0.57 0.03 0.05 M043-H028 M043 H028 8 304.74 0.0013 0.072 1.05 0.23 0.34 M044-M043 M044 M033 8 150.92 0.0020 0.022 0.86 0.11 0.17 M045-M044 M045 M044 8 32.88 0.0020 0.022 0.86 0.01 0.05 M047-M046 M047 M046 <td>M036-M018</td> <td>M036</td> <td>M018</td> <td>8</td> <td>347.08</td> <td>0.0024</td> <td>0.022</td> <td>0.93</td> <td>0.11</td> <td>0.16</td>	M036-M018	M036	M018	8	347.08	0.0024	0.022	0.93	0.11	0.16
M039-M038 M039 M038 8 225.51 0.0024 0.011 0.75 0.08 0.12 M040-M039 M040 M039 8 152.47 0.0040 0.008 0.82 0.06 0.09 M041-M040 M041 M040 8 125.91 0.0041 0.003 0.63 0.04 0.06 M042-M040 M040 8 109.35 0.0039 0.002 0.57 0.03 0.05 M043-H028 M043 H028 8 304.74 0.0013 0.072 1.05 0.23 0.34 M044-M043 M044 M043 8 150.92 0.0020 0.022 0.86 0.11 0.17 M045-M044 M045 M044 8 32.88 0.0046 0.008 0.86 0.06 0.08 M047-M046 M047 M046 8 111.85 0.0060 0.003 0.67 0.03 0.05 M048-M044 M048 4 141.92 <td>M037-M036</td> <td>M037</td> <td>M036</td> <td>8</td> <td>127.11</td> <td>0.0290</td> <td>0.003</td> <td>1.24</td> <td>0.02</td> <td>0.04</td>	M037-M036	M037	M036	8	127.11	0.0290	0.003	1.24	0.02	0.04
M040-M039 M040 M039 8 152.47 0.0040 0.008 0.82 0.06 0.09 M041-M040 M041 M040 8 125.91 0.0041 0.003 0.63 0.04 0.06 M042-M040 M040 8 19.35 0.039 0.002 0.57 0.03 0.05 M043-H028 M043 H028 8 304.74 0.0013 0.072 1.05 0.23 0.34 M044-M043 M044 M043 8 150.92 0.0020 0.022 0.86 0.11 0.17 M045-M044 M045 M044 8 32.88 0.0046 0.008 0.86 0.06 0.09 M046-M045 M046 M045 8 113.39 0.0053 0.008 0.91 0.06 0.08 M048-M044 M0404 8 111.85 0.0060 0.003 0.67 0.03 0.05 M048-M044 M0404 8 141.92 0.0044 </td <td>M038-M036</td> <td>M038</td> <td>M036</td> <td>8</td> <td>207.42</td> <td>0.0024</td> <td>0.014</td> <td>0.82</td> <td>0.09</td> <td>0.13</td>	M038-M036	M038	M036	8	207.42	0.0024	0.014	0.82	0.09	0.13
M041-M040 M041 M040 8 125.91 0.0041 0.003 0.63 0.04 0.06 M042-M040 M042 M040 8 109.35 0.0039 0.002 0.57 0.03 0.05 M043-H028 M043 H028 8 304.74 0.0013 0.072 1.05 0.23 0.34 M044-M043 M044 M043 8 150.92 0.0020 0.022 0.86 0.11 0.17 M045-M044 M045 M044 8 32.88 0.0046 0.008 0.86 0.06 0.09 M046-M045 M046 M045 8 113.39 0.0053 0.008 0.91 0.06 0.08 M047-M046 M047 M046 8 111.85 0.0060 0.003 0.67 0.03 0.05 M048-M048 M044 8 141.92 0.0044 0.014 1.00 0.08 0.11 M049-M048 M049 M048 8	M039-M038	M039	M038	8	225.51	0.0024	0.011	0.75	0.08	0.12
M042-M040 M042 M040 8 109.35 0.0039 0.002 0.57 0.03 0.05 M043-H028 M043 H028 8 304.74 0.0013 0.072 1.05 0.23 0.34 M044-M043 M044 M043 8 150.92 0.0020 0.022 0.86 0.11 0.17 M045-M045 M044 8 32.88 0.0046 0.008 0.86 0.06 0.09 M046-M045 M046 M045 8 113.39 0.0053 0.07 0.03 0.67 0.03 0.05 M047-M046 M047 M046 8 111.85 0.0060 0.003 0.67 0.03 0.05 M048-M044 M048 M044 8 141.92 0.0044 0.014 1.00 0.08 0.11 M049-M048 M049 M048 8 264.07 0.0039 0.005 0.72 0.05 0.03 M051-M050 M051 M050 <td>M040-M039</td> <td>M040</td> <td>M039</td> <td>8</td> <td>152.47</td> <td>0.0040</td> <td>0.008</td> <td>0.82</td> <td>0.06</td> <td>0.09</td>	M040-M039	M040	M039	8	152.47	0.0040	0.008	0.82	0.06	0.09
M043-H028 M043 H028 8 304.74 0.0013 0.072 1.05 0.23 0.34 M044-M043 M044 M043 8 150.92 0.0020 0.022 0.86 0.11 0.17 M045-M044 M045 M044 8 32.88 0.0046 0.008 0.86 0.06 0.09 M046-M045 M046 M045 8 113.39 0.0053 0.008 0.91 0.06 0.08 M047-M046 M047 M046 8 111.85 0.0060 0.003 0.67 0.03 0.05 M048-M044 M048 M044 8 141.92 0.0044 0.014 1.00 0.08 0.11 M049-M048 M049 M048 8 68.54 0.0146 0.002 0.78 0.02 0.03 M050-M048 M050 M8 91.85 0.0039 0.005 0.72 0.05 0.07 M051-M050 M051 M050 8	M041-M040	M041	M040	8	125.91	0.0041	0.003	0.63	0.04	0.06
M044-M043 M044 M043 8 150.92 0.0020 0.022 0.86 0.11 0.17 M045-M044 M045 M044 8 32.88 0.0046 0.008 0.86 0.06 0.09 M046-M045 M046 M045 8 113.39 0.0053 0.008 0.91 0.06 0.08 M047-M046 M047 M046 8 111.85 0.0060 0.003 0.67 0.03 0.05 M048-M044 M048 M044 8 141.92 0.0044 0.014 1.00 0.08 0.11 M049-M048 M049 M048 8 68.54 0.0146 0.002 0.78 0.02 0.03 M050-M048 M050 M048 8 264.07 0.0039 0.005 0.72 0.05 0.07 M051-M050 M051 M050 8 91.85 0.0039 0.003 0.57 0.03 0.05 M052-M050 M052 M050	M042-M040	M042	M040	8	109.35	0.0039	0.002	0.57	0.03	0.05
M045-M044 M045 M044 8 32.88 0.0046 0.008 0.86 0.06 0.09 M046-M045 M046 M045 8 113.39 0.0053 0.008 0.91 0.06 0.08 M047-M046 M047 M046 8 111.85 0.0060 0.003 0.67 0.03 0.05 M048-M044 M048 M044 8 141.92 0.0044 0.014 1.00 0.08 0.11 M059-M048 M049 M048 8 68.54 0.0146 0.002 0.78 0.02 0.03 M050-M048 M050 M048 8 264.07 0.0039 0.005 0.72 0.05 0.07 M051-M050 M051 M050 8 91.85 0.0039 0.003 0.57 0.03 0.05 M052-M050 M052 M050 8 97.89 0.0039 0.003 0.59 0.04 0.05 M053-M053 M053 8	M043-H028	M043	H028	8	304.74	0.0013	0.072	1.05	0.23	0.34
M046-M045 M046 M045 8 113.39 0.0053 0.008 0.91 0.06 0.08 M047-M046 M047 M046 8 111.85 0.0060 0.003 0.67 0.03 0.05 M048-M044 M048 M044 8 141.92 0.0044 0.014 1.00 0.08 0.11 M049-M048 M049 M048 8 68.54 0.0146 0.002 0.78 0.02 0.03 M050-M048 M050 M048 8 264.07 0.0039 0.005 0.72 0.05 0.07 M051-M050 M051 M050 8 91.85 0.0039 0.003 0.57 0.03 0.05 M052-M050 M052 M050 8 97.89 0.0039 0.003 0.59 0.04 0.05 M053-M043 M053 M063 8 162.96 0.0020 0.050 1.10 0.17 0.25 M054-M053 M054 M053	M044-M043	M044	M043	8	150.92	0.0020	0.022	0.86	0.11	0.17
M047-M046 M047 M046 8 111.85 0.0060 0.003 0.67 0.03 0.05 M048-M044 M048 M044 8 141.92 0.0044 0.014 1.00 0.08 0.11 M049-M048 M049 M048 8 68.54 0.0146 0.002 0.78 0.02 0.03 M050-M048 M050 M048 8 264.07 0.0039 0.005 0.72 0.05 0.07 M051-M050 M051 M050 8 91.85 0.0039 0.003 0.57 0.03 0.05 M052-M050 M052 M050 8 97.89 0.0039 0.003 0.59 0.04 0.05 M053-M043 M053 M043 8 162.96 0.0020 0.050 1.10 0.17 0.25 M054-M053 M054 M053 8 200.63 0.0020 0.043 1.05 0.16 0.24 M055-M054 M055 M054	M045-M044	M045	M044	8	32.88	0.0046	0.008	0.86	0.06	0.09
M048-M044 M048 M049 M048 8 141.92 0.0044 0.014 1.00 0.08 0.11 M049-M048 M049 M048 8 68.54 0.0146 0.002 0.78 0.02 0.03 M050-M048 M050 M048 8 264.07 0.0039 0.005 0.72 0.05 0.07 M051-M050 M051 M050 8 91.85 0.0039 0.003 0.57 0.03 0.05 M052-M050 M052 M050 8 97.89 0.0039 0.003 0.59 0.04 0.05 M053-M043 M053 M043 8 162.96 0.0020 0.050 1.10 0.17 0.25 M054-M053 M054 M053 8 206.63 0.0020 0.043 1.05 0.16 0.24 M055-M054 M055 M054 8 175.18 0.0021 0.037 1.02 0.14 0.22 M057-M056 M055	M046-M045	M046	M045	8	113.39	0.0053	0.008	0.91	0.06	0.08
M049-M048 M049 M048 8 68.54 0.0146 0.002 0.78 0.02 0.03 M050-M048 M050 M048 8 264.07 0.0039 0.005 0.72 0.05 0.07 M051-M050 M051 M050 8 91.85 0.0039 0.003 0.57 0.03 0.05 M052-M050 M052 M050 8 97.89 0.0039 0.003 0.59 0.04 0.05 M053-M043 M053 M043 8 162.96 0.0020 0.050 1.10 0.17 0.25 M054-M053 M054 M053 8 200.63 0.0020 0.043 1.05 0.16 0.24 M055-M054 M055 M054 8 175.18 0.0021 0.037 1.02 0.14 0.22 M056-M055 M056 M055 8 124.49 0.0024 0.022 0.92 0.11 0.16 M057-M056 M057 M056	M047-M046	M047	M046	8	111.85	0.0060	0.003	0.67	0.03	0.05
M050-M048 M050 M048 8 264.07 0.0039 0.005 0.72 0.05 0.07 M051-M050 M051 M050 8 91.85 0.0039 0.003 0.57 0.03 0.05 M052-M050 M052 M050 8 97.89 0.0039 0.003 0.59 0.04 0.05 M053-M043 M053 M043 8 162.96 0.0020 0.050 1.10 0.17 0.25 M054-M053 M054 M053 8 200.63 0.0020 0.043 1.05 0.16 0.24 M055-M054 M055 M054 8 175.18 0.0021 0.037 1.02 0.14 0.22 M056-M055 M056 M055 8 124.49 0.0024 0.022 0.92 0.11 0.16 M057-M056 M057 M056 8 130.65 0.0015 0.022 0.78 0.12 0.18 M058-M057 M058 8	M048-M044	M048	M044	8	141.92	0.0044	0.014	1.00	0.08	0.11
M051-M050 M051 M050 8 91.85 0.0039 0.003 0.57 0.03 0.05 M052-M050 M052 M050 8 97.89 0.0039 0.003 0.59 0.04 0.05 M053-M043 M053 M043 8 162.96 0.0020 0.050 1.10 0.17 0.25 M054-M053 M054 M053 8 200.63 0.0020 0.043 1.05 0.16 0.24 M055-M054 M055 M054 8 175.18 0.0021 0.037 1.02 0.14 0.22 M056-M055 M056 M055 8 124.49 0.0024 0.022 0.92 0.11 0.16 M057-M056 M057 M056 8 130.65 0.0015 0.022 0.78 0.12 0.18 M058-M057 M058 M057 8 265.40 0.0025 0.022 0.93 0.11 0.16 M059-M058 M059 M058 <td>M049-M048</td> <td>M049</td> <td>M048</td> <td>8</td> <td>68.54</td> <td>0.0146</td> <td>0.002</td> <td>0.78</td> <td>0.02</td> <td>0.03</td>	M049-M048	M049	M048	8	68.54	0.0146	0.002	0.78	0.02	0.03
M052-M050 M052 M050 8 97.89 0.0039 0.003 0.59 0.04 0.05 M053-M043 M053 M043 8 162.96 0.0020 0.050 1.10 0.17 0.25 M054-M053 M054 M053 8 200.63 0.0020 0.043 1.05 0.16 0.24 M055-M054 M055 M054 8 175.18 0.0021 0.037 1.02 0.14 0.22 M056-M055 M056 M055 8 124.49 0.0024 0.022 0.92 0.11 0.16 M057-M056 M057 M058 8 130.65 0.0015 0.022 0.78 0.12 0.18 M058-M057 M058 M057 8 265.40 0.0025 0.022 0.93 0.11 0.16 M059-M058 M059 M058 8 172.11 0.0024 0.013 0.78 0.08 0.12 M060-M055 M060 M055 <td>M050-M048</td> <td>M050</td> <td>M048</td> <td>8</td> <td>264.07</td> <td>0.0039</td> <td>0.005</td> <td>0.72</td> <td>0.05</td> <td>0.07</td>	M050-M048	M050	M048	8	264.07	0.0039	0.005	0.72	0.05	0.07
M053-M043 M053 M043 8 162.96 0.0020 0.050 1.10 0.17 0.25 M054-M053 M054 M053 8 200.63 0.0020 0.043 1.05 0.16 0.24 M055-M054 M055 M054 8 175.18 0.0021 0.037 1.02 0.14 0.22 M056-M055 M056 M055 8 124.49 0.0024 0.022 0.92 0.11 0.16 M057-M056 M057 M056 8 130.65 0.0015 0.022 0.78 0.12 0.18 M058-M057 M058 M057 8 265.40 0.0025 0.022 0.93 0.11 0.16 M059-M058 M059 M058 8 172.11 0.0024 0.013 0.78 0.08 0.12 M060-M055 M060 M055 8 112.44 0.0023 0.014 0.80 0.09 0.13 M061-M060 M061 M060 </td <td>M051-M050</td> <td>M051</td> <td>M050</td> <td>8</td> <td>91.85</td> <td>0.0039</td> <td>0.003</td> <td>0.57</td> <td>0.03</td> <td>0.05</td>	M051-M050	M051	M050	8	91.85	0.0039	0.003	0.57	0.03	0.05
M054-M053 M054 M053 8 200.63 0.0020 0.043 1.05 0.16 0.24 M055-M054 M055 M054 8 175.18 0.0021 0.037 1.02 0.14 0.22 M056-M055 M056 M055 8 124.49 0.0024 0.022 0.92 0.11 0.16 M057-M056 M057 M056 8 130.65 0.0015 0.022 0.78 0.12 0.18 M058-M057 M058 M057 8 265.40 0.0025 0.022 0.93 0.11 0.16 M059-M058 M059 M058 8 172.11 0.0024 0.013 0.78 0.08 0.12 M060-M055 M060 M055 8 112.44 0.0023 0.014 0.80 0.09 0.13 M061-M060 M061 M060 8 112.82 0.0024 0.003 0.52 0.04 0.07 M062-M060 M061 M060 </td <td>M052-M050</td> <td>M052</td> <td>M050</td> <td>8</td> <td>97.89</td> <td>0.0039</td> <td>0.003</td> <td>0.59</td> <td>0.04</td> <td>0.05</td>	M052-M050	M052	M050	8	97.89	0.0039	0.003	0.59	0.04	0.05
M055-M054 M055 M054 8 175.18 0.0021 0.037 1.02 0.14 0.22 M056-M055 M056 M055 8 124.49 0.0024 0.022 0.92 0.11 0.16 M057-M056 M057 M056 8 130.65 0.0015 0.022 0.78 0.12 0.18 M058-M057 M058 M057 8 265.40 0.0025 0.022 0.93 0.11 0.16 M059-M058 M059 M058 8 172.11 0.0024 0.013 0.78 0.08 0.12 M060-M055 M060 M055 8 112.44 0.0023 0.014 0.80 0.09 0.13 M061-M060 M061 M060 8 112.82 0.0024 0.003 0.52 0.04 0.07 M062-M060 M062 M060 8 166.87 0.0023 0.008 0.69 0.07 0.10 M063-M062 M063 M062 </td <td>M053-M043</td> <td>M053</td> <td>M043</td> <td>8</td> <td>162.96</td> <td>0.0020</td> <td>0.050</td> <td>1.10</td> <td>0.17</td> <td>0.25</td>	M053-M043	M053	M043	8	162.96	0.0020	0.050	1.10	0.17	0.25
M056-M055 M056 M055 8 124.49 0.0024 0.022 0.92 0.11 0.16 M057-M056 M057 M056 8 130.65 0.0015 0.022 0.78 0.12 0.18 M058-M057 M058 M057 8 265.40 0.0025 0.022 0.93 0.11 0.16 M059-M058 M059 M058 8 172.11 0.0024 0.013 0.78 0.08 0.12 M060-M055 M060 M055 8 112.44 0.0023 0.014 0.80 0.09 0.13 M061-M060 M061 M060 8 112.82 0.0024 0.003 0.52 0.04 0.07 M062-M060 M062 M060 8 166.87 0.0023 0.008 0.69 0.07 0.10 M063-M062 M063 M062 8 50.55 0.0025 0.008 0.70 0.07 0.10 M064-M063 M064 8	M054-M053	M054	M053	8	200.63	0.0020	0.043	1.05	0.16	0.24
M057-M056 M057 M056 8 130.65 0.0015 0.022 0.78 0.12 0.18 M058-M057 M058 M057 8 265.40 0.0025 0.022 0.93 0.11 0.16 M059-M058 M059 M058 8 172.11 0.0024 0.013 0.78 0.08 0.12 M060-M055 M060 M055 8 112.44 0.0023 0.014 0.80 0.09 0.13 M061-M060 M061 M060 8 112.82 0.0024 0.003 0.52 0.04 0.07 M062-M060 M062 M060 8 166.87 0.0023 0.008 0.69 0.07 0.10 M063-M062 M063 M062 8 50.55 0.0025 0.008 0.70 0.07 0.10 M064-M063 M064 M063 8 41.82 0.0025 0.008 0.68 0.07 0.10 M065-M064 M065 M064 <td>M055-M054</td> <td>M055</td> <td>M054</td> <td>8</td> <td>175.18</td> <td>0.0021</td> <td>0.037</td> <td>1.02</td> <td>0.14</td> <td>0.22</td>	M055-M054	M055	M054	8	175.18	0.0021	0.037	1.02	0.14	0.22
M058-M057 M058 M057 8 265.40 0.0025 0.022 0.93 0.11 0.16 M059-M058 M059 M058 8 172.11 0.0024 0.013 0.78 0.08 0.12 M060-M055 M060 M055 8 112.44 0.0023 0.014 0.80 0.09 0.13 M061-M060 M061 M060 8 112.82 0.0024 0.003 0.52 0.04 0.07 M062-M060 M062 M060 8 166.87 0.0023 0.008 0.69 0.07 0.10 M063-M062 M063 M062 8 50.55 0.0025 0.008 0.70 0.07 0.10 M064-M063 M064 M063 8 41.82 0.0025 0.008 0.70 0.07 0.10 M065-M064 M065 M064 8 58.79 0.0023 0.008 0.68 0.07 0.10	M056-M055	M056	M055	8	124.49	0.0024	0.022	0.92	0.11	0.16
M059-M058 M059 M058 8 172.11 0.0024 0.013 0.78 0.08 0.12 M060-M055 M060 M055 8 112.44 0.0023 0.014 0.80 0.09 0.13 M061-M060 M061 M060 8 112.82 0.0024 0.003 0.52 0.04 0.07 M062-M060 M062 M060 8 166.87 0.0023 0.008 0.69 0.07 0.10 M063-M062 M063 M062 8 50.55 0.0025 0.008 0.70 0.07 0.10 M064-M063 M064 M063 8 41.82 0.0025 0.008 0.70 0.07 0.10 M065-M064 M065 M064 8 58.79 0.0023 0.008 0.68 0.07 0.10	M057-M056	M057	M056	8	130.65	0.0015	0.022	0.78	0.12	0.18
M060-M055 M060 M055 8 112.44 0.0023 0.014 0.80 0.09 0.13 M061-M060 M061 M060 8 112.82 0.0024 0.003 0.52 0.04 0.07 M062-M060 M062 M060 8 166.87 0.0023 0.008 0.69 0.07 0.10 M063-M062 M063 M062 8 50.55 0.0025 0.008 0.70 0.07 0.10 M064-M063 M064 M063 8 41.82 0.0025 0.008 0.70 0.07 0.10 M065-M064 M065 M064 8 58.79 0.0023 0.008 0.68 0.07 0.10	M058-M057	M058	M057	8	265.40	0.0025	0.022	0.93	0.11	0.16
M061-M060 M061 M060 8 112.82 0.0024 0.003 0.52 0.04 0.07 M062-M060 M062 M060 8 166.87 0.0023 0.008 0.69 0.07 0.10 M063-M062 M063 M062 8 50.55 0.0025 0.008 0.70 0.07 0.10 M064-M063 M064 M063 8 41.82 0.0025 0.008 0.70 0.07 0.10 M065-M064 M065 M064 8 58.79 0.0023 0.008 0.68 0.07 0.10	M059-M058	M059	M058	8	172.11	0.0024	0.013	0.78	0.08	0.12
M062-M060 M062 M060 8 166.87 0.0023 0.008 0.69 0.07 0.10 M063-M062 M063 M062 8 50.55 0.0025 0.008 0.70 0.07 0.10 M064-M063 M064 M063 8 41.82 0.0025 0.008 0.70 0.07 0.10 M065-M064 M065 M064 8 58.79 0.0023 0.008 0.68 0.07 0.10	M060-M055	M060	M055	8	112.44	0.0023	0.014	0.80	0.09	0.13
M062-M060 M062 M060 8 166.87 0.0023 0.008 0.69 0.07 0.10 M063-M062 M063 M062 8 50.55 0.0025 0.008 0.70 0.07 0.10 M064-M063 M064 M063 8 41.82 0.0025 0.008 0.70 0.07 0.10 M065-M064 M065 M064 8 58.79 0.0023 0.008 0.68 0.07 0.10	M061-M060	M061	M060	8	112.82	0.0024	0.003	0.52	0.04	0.07
M063-M062 M063 M062 8 50.55 0.0025 0.008 0.70 0.07 0.10 M064-M063 M064 M063 8 41.82 0.0025 0.008 0.70 0.07 0.10 M065-M064 M065 M064 8 58.79 0.0023 0.008 0.68 0.07 0.10	M062-M060	M062	1	8	166.87	0.0023	0.008	0.69	0.07	0.10
M064-M063 M064 M063 8 41.82 0.0025 0.008 0.70 0.07 0.10 M065-M064 M065 M064 8 58.79 0.0023 0.008 0.68 0.07 0.10			1					0.70	0.07	0.10
M065-M064 M065 M064 8 58.79 0.0023 0.008 0.68 0.07 0.10			1							0.10
								0.68	0.07	0.10
										0.05
										0.08

Model Results - Existing Peak Wet Weather Flow (PWWF) Scenario

MoS-MoS MoS		_		l Results - Existii		veather ric	,			
MGF_M066 MGF7 M066 8	Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
MOSE-MOPS MOPS MOPS MOPS MOPS MOPS MOPS MOPS									•	
M069 M068 M069 M068 8		1								
M071-M070 M071 M070 R		1								
M071-M070 M071 M072 M071 8	M069-M068	M069								
M072-M072 M073 M072 8 5-6.01 0.0020 0.060 1.17 0.19 0.28 0.07 0.07 0.07 0.15 0.22 0.07 0.07 0.07 0.07 0.07 0.07 0.07	M070-M069	M070	M069		136.67	0.0020	0.068	1.20	0.20	0.30
M073+M072 M073 M074 M075 M076 M077 M076 M076 M077 M078 M078-40 M078-40	M071-M070	M071		8	141.35	0.0016	0.060			0.30
M074-M073 M074 M073 8 75.91 0.0018 0.025 0.88 0.12 0.19 M075-M075 M076 M075 8 24.44 0.0021 0.019 0.33 0.10 0.16 M075-M075 M076 M075 8 24.44 0.0021 0.019 0.33 0.10 0.16 M075-M075 M076 M077 8 15.22 0.0046 0.003 0.76 0.08 0.13 M078-M077 M078 M077 8 15.22 0.0046 0.003 0.65 0.04 0.06 0.06 M078-M077 M078 M079 M079 M078 M079 M078 M079 M078 M079 M078 M079 M079 M078 M079 M079 M078 M079 M078 M079 M078 M079 M078 M079	M072-M071	M072	M071	8	54.01	0.0020	0.060	1.17	0.19	0.28
MO75-M074 M075 M074 8	M073-M072	M073	M072	8	44.37	0.0018	0.037	0.97	0.15	0.22
MO75-MO75 MO76 MO75 8	M074-M073	M074	M073	8	75.91	0.0018	0.025	0.88	0.12	0.19
MO73-MO76 MO77 MO76 8	M075-M074	M075	M074	8	149.71	0.0021	0.025	0.91	0.12	0.18
M073-M077 M078 M079 M078 8 15.22 0.0046 0.003 0.65 0.04 0.05 0.07 M080-M088 M080 M068 8 175.94 0.0205 0.004 1.17 0.03 0.04 M081-M088 M081 M070 8 39.12 0.0041 0.009 0.84 0.06 0.09 M082-M081 M082 M081 M082 M081 M082 M083 M082 8 122.25 0.0039 0.004 0.64 0.06 0.09 M083-M082 M083 M082 8 122.25 0.0039 0.004 0.63 0.04 0.06 M083-M084 M069 M084 M069 8 219.48 0.0041 0.010 0.88 0.07 0.10 M085-M084 M069 M084 8 325.40 0.0039 0.003 0.59 0.04 0.05 M086-M087 M086 M087 M086 M072 8 173.38 0.0040 0.023 1.12 0.10 0.15 M088-M073 M088 M073 8 176.10 0.0401 0.004 0.64 0.04 0.06 M089-M075 M089 M075 8 132.74 0.0041 0.007 0.77 0.05 0.08 M091-M089 M090 M089 8 132.74 0.0041 0.007 0.77 0.05 0.08 M091-M089 M091 M089 8 8 88.87 0.0040 0.001 0.47 0.03 0.04 M092-M079 M092 M077 8 212.79 0.0024 0.009 0.72 0.07 0.01 M092-M079 M092 M077 8 212.79 0.0024 0.009 0.72 0.07 0.01 M093-M092 M093 M092 8 169.76 0.0180 0.006 1.24 0.04 0.05 M093-M093 M094 M093 8 324.3 0.0060 0.015 1.14 0.07 0.01 M093-M093 M094 M093 8 324.3 0.0060 0.015 1.14 0.07 0.01 M093-M093 M094 M093 M092 8 169.76 0.0180 0.006 1.24 0.04 0.05 0.07 0	M076-M075	M076	M075	8	24.44	0.0021	0.019	0.83	0.10	0.16
MO79-MO78 MO79 MO78 8 103.98 0.0020 0.003 0.49 0.05 0.07	M077-M076	M077	M076	8	178.24	0.0022	0.013	0.76	0.08	0.13
MOS81-MO70 MOS8	M078-M077	M078	M077	8	15.22	0.0046	0.003	0.65	0.04	0.06
MOS81-MO70 MOS8	M079-M078	M079	M078	8	103.98	0.0020	0.003	0.49	0.05	0.07
MOS1-MOS2 MOS1 MOS2 MOS1 S 39.12 0.0041 0.009 0.84 0.06 0.09 MOS2-MOS3 MOS2 MOS3 MOS2 S 112.2.5 0.0039 0.004 0.64 0.04 0.06 0.06 MOS3-MOS2 MOS3 MOS2 S 112.2.5 0.0039 0.004 0.63 0.04 0.06 0.06 MOS3-MOS4 MOS5 MOS4 MOS5 M	M080-M068	M080	M068		175.94	0.0205	0.004	1.17	0.03	0.04
MOS2-MOS1 MOS2 MOS1 S 219.67 0.0040 0.004 0.64 0.04 0.06 0.06 MOS3-MOS2 MOS3 MOS2 S 122.25 0.0039 0.004 0.63 0.04 0.06 0.06 0.06 MOS3-MOS3 MOS4 MOS9 S 219.48 0.0041 0.010 0.88 0.07 0.10 0.088 0.07 0.10 0.088 0.07 0.10 0.088 0.07 0.10 0.088 0.07 0.10 0.088 0.07 0.10 0.088 0.07 0.10 0.088 0.07 0.10 0.088 0.07 0.10 0.088 0.07 0.10 0.088 0.07 0.10 0.088 0.07 0.10 0.088 0.07 0.10 0.088 0.07 0.11 0.088 0.07 0.088 0.07 0.11 0.088 0.07 0.088 0.07 0.11 0.088 0.07 0.088 0.07 0.11 0.088 0.07 0.088 0.07 0.088 0.07 0.088 0.07 0.088 0.07 0.088 0.07 0.088 0.07 0.088 0.07 0.088 0.07 0.088 0.07 0.088 0.07 0.088 0.07 0.088 0.07 0.088 0.098 0.094 0.094 0.066 0.04 0.066 0.04 0.066 0.04 0.066 0.04 0.066 0.04 0.068 0.098	M081-M070	M081			39.12	0.0041	0.009	0.84	0.06	0.09
MO83-M069 M084 M069 8 122.25 0.0039 0.004 0.63 0.04 0.00 0.00 M084-M069 M084 M069 8 219.48 0.0041 0.010 0.88 0.07 0.10 0.00 M085-M084 M085 M084 8 325.40 0.0039 0.003 0.59 0.04 0.05 0.05 M086-M072 M086 M072 8 173.38 0.0040 0.023 1.12 0.10 0.15 0.0085-M086 M087 M086 M087 M086 8 279.92 0.0040 0.012 0.92 0.07 0.11 M088-M073 M088 M073 8 176.10 0.0040 0.004 0.04 0.64 0.04 0.06 M089-M073 M088 M073 8 176.10 0.0040 0.004 0.004 0.64 0.04 0.06 M089-M073 M088 M073 8 132.74 0.0041 0.007 0.77 0.05 0.08 M089-M075 M089 M075 8 132.74 0.0041 0.007 0.77 0.05 0.08 M099-M089 M090 M089 8 103.46 0.0041 0.004 0.66 0.04 0.06 M091-M089 M091 M089 8 8 85.87 0.0040 0.001 0.47 0.03 0.04 M092-M079 M092 M077 8 212.79 0.0024 0.009 0.72 0.07 0.01 0.04 0.06 0.00 0.00 0.00 0.00 0.00 0.00	M082-M081	M082		8	219.67	0.0040	0.004	0.64	0.04	0.06
MO84-M069 MO84 MO65 8 219.48 0.0041 0.010 0.88 0.07 0.10		1								0.06
M085-M084 M085 M084 8 325.40 0.0039 0.003 0.59 0.04 0.05 M086-M072 M086 M072 8 173.38 0.0040 0.023 1.12 0.10 0.15 M087-M086 M073 8 176.10 0.0040 0.004 0.64 0.04 0.06 M088-M073 M088 M073 8 176.10 0.0040 0.004 0.64 0.04 0.06 M090-M089 M075 8 132.74 0.0041 0.007 0.77 0.05 0.08 M091-M089 M091 M089 8 85.87 0.0040 0.001 0.47 0.03 0.04 M093-M092 M091 M089 8 85.87 0.0040 0.001 0.47 0.03 0.04 M093-M092 M093 8 264.84 0.0024 0.004 0.53 0.05 0.07 M094-M093 8 264.84 0.0024 0.004 0.53 </td <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td>					-					
M086-M072 M086 M077 8		1			-					
M087+M086 M087 M088 M073 8 176.10 0.0040 0.012 0.92 0.07 0.11		1								
M088-M073 M088 M073 8		1								
M089-M075 M089 M075 8										
M090-M089 M090 M089 8		1								
M091-M089 M091 M089 8 85.87 0.0040 0.001 0.47 0.03 0.04 M092-M077 M092 M077 8 212.79 0.0024 0.009 0.72 0.07 0.11 M093-M093 M093 M092 8 169.76 0.0180 0.006 1.24 0.04 0.05 M094-M093 M094 M093 8 264.84 0.0024 0.004 0.53 0.05 0.07 M095-N013 M095 N013 8 392.43 0.0060 0.015 1.14 0.07 0.11 M002-N001 N002 N001 8 7.60 1.1124 0.019 7.54 0.02 0.04 M003-N002 N003 N002 8 140.56 0.0047 0.014 1.02 0.07 0.11 N004-N003 N004 N003 8 352.94 0.0040 0.014 0.97 0.08 0.12 N008-N002 N008 N002 8 187.28 0.0040 0.014 0.97 0.08 0.12 N008-N002 N008 N002 8 187.28 0.0040 0.005 0.71 0.05 0.07 N009-N010 N009 N010 8 397.32 0.0087 0.001 0.59 0.02 0.03 N010-N006 N010 N006 8 6.12 0.9820 0.009 5.73 0.02 0.03 N011-N012 N011 N012 8 146.81 0.0070 0.002 0.68 0.03 0.04 N012-N007 N012 N007 8 10.94 0.0923 0.023 3.33 0.05 0.07 N013-N012 N013 N012 8 89.48 0.0192 0.020 1.87 0.06 0.09 N014-N013 N014 N013 8 82.82 0.0069 0.005 0.85 0.04 0.06 N015-N014 N015 N014 8 121.18 0.0120 0.003 0.85 0.03 0.04 N017-N018 N017 N018 8 142.82 0.0039 0.002 0.50 0.03 0.04 N018-N092 N018 N092 8 56.41 0.0452 0.020 0.59 0.07 0.07 N020-N019 N020 N019 8 360.42 0.0033 0.009 0.79 0.07 0.10 N021-N018 N019 N018 8 177.21 0.0032 0.009 0.79 0.07 0.10 N021-N018 N019 N018 8 177.21 0.0032 0.009 0.79 0.07 0.10 N021-N018 N019 N018 8 138.34 0.0099 0.099 0.14 0.05 0.07 N021-N018 N019 N018 8 138.34 0.0099 0.099 0.14 0.05 0.07 N021-N018 N019 N018 8 138.34 0.0099 0.099 0.14 0.05 0.07 N021-N018 N019 N018 8 138.34 0.0099 0.099 0.14 0.05 0.07		1								
M092-M077 M092 M077 8 212.79 0.0024 0.009 0.72 0.07 0.11										
M093-M092 M093 M092 8 169.76 0.0180 0.006 1.24 0.04 0.05 M094-M093 M093 8 264.84 0.0024 0.004 0.53 0.05 0.07 M095-N013 M095 N013 8 392.43 0.0060 0.015 1.14 0.07 0.11 M002-N001 N002 N001 8 7.60 1.1124 0.019 7.54 0.02 0.04 N003-N002 N003 N002 8 140.56 0.0047 0.014 1.02 0.07 0.11 N004-N003 N004 N003 8 352.94 0.0040 0.014 0.97 0.08 0.12 N008-N002 N008 N002 8 187.28 0.0040 0.005 0.71 0.05 0.07 N009-N010 N009 N010 8 397.32 0.0040 0.005 0.71 0.05 0.02 N011-N010 N011 N012 8										
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M095-N013 M095 N013 8 392.43 0.0060 0.015 1.14 0.07 0.11		+								
N002-N001 N002 N001 8 7.60 1.1124 0.019 7.54 0.02 0.04 N003-N002 N003 N002 8 140.56 0.0047 0.014 1.02 0.07 0.11 N004-N003 N004 N003 8 352.94 0.0040 0.014 0.97 0.08 0.12 N008-N002 N008 N002 8 187.28 0.0040 0.005 0.71 0.05 0.07 N009-N010 N009 N010 8 397.32 0.0087 0.001 0.59 0.02 0.03 N010-N006 N010 N006 8 6.12 0.9820 0.009 5.73 0.02 0.03 N011-N012 N011 N012 8 146.81 0.0070 0.002 0.68 0.03 0.04 N012-N007 N012 N007 8 10.94 0.0923 0.023 3.33 0.05 0.07 N013-N013 N014 8			+							
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N004-N003 N004 N003 8 352.94 0.0040 0.014 0.97 0.08 0.12		1								
N008-N002 N008 N002 8 187.28 0.0040 0.005 0.71 0.05 0.07 N009-N010 N009 N010 8 397.32 0.0087 0.001 0.59 0.02 0.03 N010-N006 N010 N006 8 6.12 0.9820 0.009 5.73 0.02 0.03 N011-N012 N011 N012 8 146.81 0.0070 0.002 0.68 0.03 0.04 N012-N007 N012 N007 8 10.94 0.0923 0.023 3.33 0.05 0.07 N013-N012 N013 N012 8 89.48 0.0192 0.020 1.87 0.06 0.09 N014-N013 N014 8 82.82 0.0069 0.005 0.85 0.04 0.06 N015-N014 N015 N014 8 121.18 0.0120 0.003 0.85 0.03 0.04 N017-N018 N017 N018 8					-					
N009-N010 N009		+								
N010-N006 N010 N006 8 6.12 0.9820 0.009 5.73 0.02 0.03 N011-N012 N011 N012 8 146.81 0.0070 0.002 0.68 0.03 0.04 N012-N007 N012 N007 8 10.94 0.0923 0.023 3.33 0.05 0.07 N013-N012 N013 N012 8 89.48 0.0192 0.020 1.87 0.06 0.09 N014-N013 N014 N013 8 82.82 0.0069 0.005 0.85 0.04 0.06 N015-N014 N015 N014 8 121.18 0.0120 0.003 0.85 0.03 0.04 N017-N018 N017 N018 8 142.82 0.0039 0.002 0.50 0.03 0.04 N018-N092 N018 8 156.41 0.0452 0.020 2.49 0.05 0.08 N019-N018-N019 N018 8 167.21 <td></td>										
N011-N012 N011 N012 8 146.81 0.0070 0.002 0.68 0.03 0.04 N012-N007 N012 N007 8 10.94 0.0923 0.023 3.33 0.05 0.07 N013-N012 N013 N012 8 89.48 0.0192 0.020 1.87 0.06 0.09 N014-N013 N014 N013 8 82.82 0.0069 0.005 0.85 0.04 0.06 N015-N014 N015 N014 8 121.18 0.0120 0.003 0.85 0.03 0.04 N017-N018 N017 N018 8 142.82 0.0039 0.002 0.50 0.03 0.04 N018-N092 N018 8 142.82 0.0039 0.002 0.50 0.03 0.08 N019-N018 N019 N018 8 177.21 0.0032 0.009 0.79 0.07 0.10 N020-N019 N020 N019 8					-					
N012-N007 N012 N007 8 10.94 0.0923 0.023 3.33 0.05 0.07 N013-N012 N013 N012 8 89.48 0.0192 0.020 1.87 0.06 0.09 N014-N013 N014 N013 8 82.82 0.0069 0.005 0.85 0.04 0.06 N015-N014 N015 N014 8 121.18 0.0120 0.003 0.85 0.03 0.04 N017-N018 N017 N018 8 142.82 0.0039 0.002 0.50 0.03 0.04 N018-N092 N018 8 142.82 0.0039 0.002 0.50 0.03 0.04 N018-N092 N018 8 177.21 0.0032 0.009 0.79 0.07 0.10 N020-N019 N020 N019 8 360.42 0.0033 0.009 0.80 0.07 0.10 N021-N018 N021 N018 8 138.34		+	1							
N013-N012 N013 N012 8 89.48 0.0192 0.020 1.87 0.06 0.09 N014-N013 N014 N013 8 82.82 0.0069 0.005 0.85 0.04 0.06 N015-N014 N015 N014 8 121.18 0.0120 0.003 0.85 0.03 0.04 N017-N018 N017 N018 8 142.82 0.0039 0.002 0.50 0.03 0.04 N018-N092 N018 N092 8 56.41 0.0452 0.020 2.49 0.05 0.08 N019-N018 N019 N018 8 177.21 0.0032 0.009 0.79 0.07 0.10 N020-N019 N020 N019 8 360.42 0.0033 0.009 0.80 0.07 0.10 N021-N018 N021 N018 8 138.34 0.0099 0.009 1.14 0.05 0.07 N022-N021 N022 N021		1								
N014-N013 N014 N013 8 82.82 0.0669 0.005 0.85 0.04 0.06 N015-N014 N015 N014 8 121.18 0.0120 0.003 0.85 0.03 0.04 N017-N018 N017 N018 8 142.82 0.0039 0.002 0.50 0.03 0.04 N018-N092 N018 N092 8 56.41 0.0452 0.020 2.49 0.05 0.08 N019-N018 N019 N018 8 177.21 0.0032 0.009 0.79 0.07 0.10 N020-N019 N020 N019 8 360.42 0.0033 0.009 0.80 0.07 0.10 N021-N018 N021 N018 8 138.34 0.0099 0.009 1.14 0.05 0.07 N021-N018 N021 N018 8 138.34 0.0099 0.009 1.14 0.05 0.07 N022-N021 N022 8										
N015-N014 N015 N014 8 121.18 0.0120 0.003 0.85 0.03 0.04 N017-N018 N017 N018 8 142.82 0.0039 0.002 0.50 0.03 0.04 N018-N092 N018 N092 8 56.41 0.0452 0.020 2.49 0.05 0.08 N019-N018 N019 N018 8 177.21 0.0032 0.009 0.79 0.07 0.10 N020-N019 N020 N019 8 360.42 0.0033 0.009 0.80 0.07 0.10 N021-N018 N021 N018 8 138.34 0.0099 0.009 0.80 0.07 0.10 N021-N018 N021 N018 8 138.34 0.0099 0.009 1.14 0.05 0.07 N022-N021 N022 N021 8 348.23 0.0032 0.008 0.75 0.06 0.09 N023-N022 N023 N022 <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		1								
N017-N018 N017 N018 8 142.82 0.0039 0.002 0.50 0.03 0.04 N018-N092 N018 N092 8 56.41 0.0452 0.020 2.49 0.05 0.08 N019-N018 N019 N018 8 177.21 0.0032 0.009 0.79 0.07 0.10 N020-N019 N020 N019 8 360.42 0.0033 0.009 0.80 0.07 0.10 N021-N018 N021 N018 8 138.34 0.0099 0.009 1.14 0.05 0.07 N021-N018 N021 N018 8 138.34 0.0099 0.009 1.14 0.05 0.07 N021-N018 N021 N018 8 138.34 0.0099 0.009 1.14 0.05 0.07 N022-N021 N022 N021 8 348.23 0.0032 0.008 0.75 0.06 0.09 N023-N022 N023 N022 <td></td> <td>+</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		+								
N018-N092 N018 N092 8 56.41 0.0452 0.020 2.49 0.05 0.08 N019-N018 N019 N018 8 177.21 0.0032 0.009 0.79 0.07 0.10 N020-N019 N020 N019 8 360.42 0.0033 0.009 0.80 0.07 0.10 N021-N018 N021 N018 8 138.34 0.0099 0.009 1.14 0.05 0.07 N022-N021 N022 N021 8 348.23 0.0032 0.008 0.75 0.06 0.09 N023-N022 N023 N022 8 302.26 0.0033 0.005 0.64 0.05 0.07 N024-I021 N024 I021 12 151.95 0.0026 0.318 1.96 0.36 0.36 N025-N024 N025 N024 15 102.82 0.0009 0.303 1.29 0.42 0.34 N026-N025 N026 N025<		+								0.04
N019-N018 N019 N018 8 177.21 0.0032 0.009 0.79 0.07 0.10 N020-N019 N020 N019 8 360.42 0.0033 0.009 0.80 0.07 0.10 N021-N018 N021 N018 8 138.34 0.0099 0.009 1.14 0.05 0.07 N022-N021 N022 N021 8 348.23 0.0032 0.008 0.75 0.06 0.09 N023-N022 N023 N022 8 302.26 0.0033 0.005 0.64 0.05 0.07 N024-I021 N024 I021 12 151.95 0.0026 0.318 1.96 0.36 0.36 N025-N024 N025 N024 15 102.82 0.0009 0.303 1.29 0.42 0.34 N026-N025 N026 N025 15 129.78 0.0008 0.300 1.23 0.43 0.35 N027-N026 N027 N02		1								0.04
N020-N019 N020 N019 8 360.42 0.0033 0.009 0.80 0.07 0.10 N021-N018 N021 N018 8 138.34 0.0099 0.009 1.14 0.05 0.07 N022-N021 N022 N021 8 348.23 0.0032 0.008 0.75 0.06 0.09 N023-N022 N023 N022 8 302.26 0.0033 0.005 0.64 0.05 0.07 N024-I021 N024 I021 12 151.95 0.0026 0.318 1.96 0.36 0.36 N025-N024 N025 N024 15 102.82 0.0009 0.303 1.29 0.42 0.34 N026-N025 N026 N025 15 129.78 0.0008 0.300 1.23 0.43 0.35 N027-N026 N027 N026 15 20.16 0.0010 0.298 1.34 0.40 0.32 N028-N027 N028 N02					-					0.08
N021-N018 N021 N018 8 138.34 0.0099 0.009 1.14 0.05 0.07 N022-N021 N022 N021 8 348.23 0.0032 0.008 0.75 0.06 0.09 N023-N022 N023 N022 8 302.26 0.0033 0.005 0.64 0.05 0.07 N024-I021 N024 I021 12 151.95 0.0026 0.318 1.96 0.36 0.36 N025-N024 N025 N024 15 102.82 0.0009 0.303 1.29 0.42 0.34 N026-N025 N026 N025 15 129.78 0.0008 0.300 1.23 0.43 0.35 N027-N026 N027 N026 15 20.16 0.0010 0.298 1.34 0.40 0.32 N028-N027 N028 N027 15 115.95 0.0008 0.296 1.23 0.43 0.34 N029-N028 N029 N0										0.10
N022-N021 N022 N021 8 348.23 0.0032 0.008 0.75 0.06 0.09 N023-N022 N023 N022 8 302.26 0.0033 0.005 0.64 0.05 0.07 N024-I021 N024 I021 12 151.95 0.0026 0.318 1.96 0.36 0.36 N025-N024 N025 N024 15 102.82 0.0009 0.303 1.29 0.42 0.34 N026-N025 N026 N025 15 129.78 0.0008 0.300 1.23 0.43 0.35 N027-N026 N027 N026 15 20.16 0.0010 0.298 1.34 0.40 0.32 N028-N027 N028 N027 15 115.95 0.0008 0.296 1.23 0.43 0.34 N029-N028 N029 N028 15 28.33 0.0011 0.294 1.37 0.39 0.32 N030-N029 N030 N0		1			-					0.10
N023-N022 N023 N022 8 302.26 0.0033 0.005 0.64 0.05 0.07 N024-I021 N024 I021 12 151.95 0.0026 0.318 1.96 0.36 0.36 N025-N024 N025 N024 15 102.82 0.0009 0.303 1.29 0.42 0.34 N026-N025 N026 N025 15 129.78 0.0008 0.300 1.23 0.43 0.35 N027-N026 N027 N026 15 20.16 0.0010 0.298 1.34 0.40 0.32 N028-N027 N028 N027 15 115.95 0.0008 0.296 1.23 0.43 0.34 N029-N028 N029 N028 15 28.33 0.0011 0.294 1.37 0.39 0.32 N030-N029 N030 N029 15 133.58 0.0008 0.292 1.25 0.42 0.34 N031-N030 N031 N		1								0.07
N024-I021 N024 I021 12 151.95 0.0026 0.318 1.96 0.36 0.36 N025-N024 N025 N024 15 102.82 0.0009 0.303 1.29 0.42 0.34 N026-N025 N026 N025 15 129.78 0.0008 0.300 1.23 0.43 0.35 N027-N026 N027 N026 15 20.16 0.0010 0.298 1.34 0.40 0.32 N028-N027 N028 N027 15 115.95 0.0008 0.296 1.23 0.43 0.34 N029-N028 N029 N028 15 28.33 0.0011 0.294 1.37 0.39 0.32 N030-N029 N030 N029 15 133.58 0.0008 0.292 1.25 0.42 0.34 N031-N030 N031 N030 15 95.83 0.0009 0.291 1.31 0.40 0.32	N022-N021	N022		8	348.23	0.0032	0.008	0.75		0.09
N025-N024 N025 N024 15 102.82 0.0009 0.303 1.29 0.42 0.34 N026-N025 N026 N025 15 129.78 0.0008 0.300 1.23 0.43 0.35 N027-N026 N027 N026 15 20.16 0.0010 0.298 1.34 0.40 0.32 N028-N027 N028 N027 15 115.95 0.0008 0.296 1.23 0.43 0.34 N029-N028 N029 N028 15 28.33 0.0011 0.294 1.37 0.39 0.32 N030-N029 N030 N029 15 133.58 0.0008 0.292 1.25 0.42 0.34 N031-N030 N031 N030 15 95.83 0.0009 0.291 1.31 0.40 0.32	N023-N022	N023	N022	8	302.26	0.0033	0.005	0.64	0.05	0.07
N026-N025 N026 N025 15 129.78 0.0008 0.300 1.23 0.43 0.35 N027-N026 N027 N026 15 20.16 0.0010 0.298 1.34 0.40 0.32 N028-N027 N028 N027 15 115.95 0.0008 0.296 1.23 0.43 0.34 N029-N028 N029 N028 15 28.33 0.0011 0.294 1.37 0.39 0.32 N030-N029 N030 N029 15 133.58 0.0008 0.292 1.25 0.42 0.34 N031-N030 N031 N030 15 95.83 0.0009 0.291 1.31 0.40 0.32	N024-I021	N024	1021	12	151.95	0.0026	0.318	1.96	0.36	0.36
N027-N026 N027 N026 15 20.16 0.0010 0.298 1.34 0.40 0.32 N028-N027 N028 N027 15 115.95 0.0008 0.296 1.23 0.43 0.34 N029-N028 N029 N028 15 28.33 0.0011 0.294 1.37 0.39 0.32 N030-N029 N030 N029 15 133.58 0.0008 0.292 1.25 0.42 0.34 N031-N030 N031 N030 15 95.83 0.0009 0.291 1.31 0.40 0.32	N025-N024	N025	N024	15	102.82			1.29	0.42	0.34
N028-N027 N028 N027 15 115.95 0.0008 0.296 1.23 0.43 0.34 N029-N028 N029 N028 15 28.33 0.0011 0.294 1.37 0.39 0.32 N030-N029 N030 N029 15 133.58 0.0008 0.292 1.25 0.42 0.34 N031-N030 N031 N030 15 95.83 0.0009 0.291 1.31 0.40 0.32	N026-N025	N026	N025	15	129.78	0.0008	0.300	1.23	0.43	0.35
N029-N028 N029 N028 15 28.33 0.0011 0.294 1.37 0.39 0.32 N030-N029 N030 N029 15 133.58 0.0008 0.292 1.25 0.42 0.34 N031-N030 N031 N030 15 95.83 0.0009 0.291 1.31 0.40 0.32	N027-N026	N027	N026	15	20.16	0.0010	0.298	1.34	0.40	0.32
N029-N028 N029 N028 15 28.33 0.0011 0.294 1.37 0.39 0.32 N030-N029 N030 N029 15 133.58 0.0008 0.292 1.25 0.42 0.34 N031-N030 N031 N030 15 95.83 0.0009 0.291 1.31 0.40 0.32	N028-N027	N028	N027	15	115.95	0.0008	0.296	1.23	0.43	0.34
N030-N029 N030 N029 15 133.58 0.0008 0.292 1.25 0.42 0.34 N031-N030 N031 N030 15 95.83 0.0009 0.291 1.31 0.40 0.32	N029-N028	N029	N028	15	28.33	0.0011	0.294	1.37	0.39	0.32
N031-N030 N031 N030 15 95.83 0.0009 0.291 1.31 0.40 0.32	N030-N029			15		0.0008	0.292			0.34
										0.32
	N032-N095	N032	N095	12	130.65	0.0012	0.280	1.45	0.41	0.41

Model Results - Existing Peak Wet Weather Flow (PWWF) Scenario

			l Results - Existii		veather Fio				
Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
N033-N032	ID N033	N032	(inches)	(feet) 325.24	0.0012	(MGD) 0.272	(ft/s) 1.42	(feet) 0.40	0.40
N034-N033	N034	N033	12	295.68	0.0012	0.234	1.38	0.37	0.37
N035-N034	N035	N034	12	296.87	0.0012	0.225	1.34	0.36	0.36
N036-N035	N036	N035	12	291.04	0.0012	0.192	1.40	0.32	0.32
N037-N036	N037	N035	12	295.39	0.0013	0.192	1.40	0.32	0.30
N038-N037	N037	N036	12	328.67	0.0014	0.164	1.13	0.30	0.30
N039-N038	N039	N038	8	351.12	0.0021	0.027	0.93	0.12	0.18
N040-N039	N040	N039	8	350.04	0.0027	0.022	0.96	0.11	0.16
N041-N040	N041	N040	8	350.40	0.0024	0.016	0.83	0.09	0.14
N042-N041	N042	N041	8	351.89	0.0024	0.009	0.70	0.07	0.11
N043-N042	N043	N042	8	155.63	0.0040	0.003	0.62	0.04	0.06
N044-N024	N044	N024	8	188.69	0.0038	0.013	0.93	0.08	0.11
N045-N044	N045	N044	8	120.12	0.0036	0.011	0.86	0.07	0.10
N046-N045	N046	N045	8	33.87	0.0033	0.009	0.78	0.06	0.10
N047-N046	N047	N046	8	113.01	0.0037	0.007	0.77	0.06	0.09
N048-N047	N048	N047	8	16.67	0.0036	0.005	0.69	0.05	0.07
N049-N048	N049	N048	8	144.14	0.0040	0.004	0.65	0.04	0.06
N050-N049	N050	N049	8	171.77	0.0038	0.001	0.38	0.02	0.03
N051-N025	N051	N025	8	83.97	0.0811	0.002	1.58	0.02	0.02
N052-N026	N052	N026	8	98.61	0.0484	0.002	1.29	0.02	0.03
N053-N027	N053	N027	8	85.84	0.0417	0.001	1.06	0.01	0.02
N054-N028	N054	N028	8	97.27	0.0358	0.002	1.17	0.02	0.03
N055-N029	N055	N029	8	83.87	0.0352	0.002	1.08	0.02	0.03
N056-N030	N056	N030	8	84.03	0.0331	0.002	1.07	0.02	0.03
N057-N033	N057	N033	8	290.98	0.0024	0.035	1.06	0.14	0.20
N058-N057	N058	N057	8	305.40	0.0024	0.027	0.98	0.12	0.18
N059-N058	N059	N058	8	308.21	0.0024	0.019	0.89	0.10	0.15
N060-N059	N060	N059	8	323.69	0.0024	0.015	0.82	0.09	0.13
N061-N060	N061	N060	8	90.73	0.0072	0.011	1.11	0.06	0.09
N062-N061	N062	N061	8	245.20	0.0022	0.007	0.65	0.07	0.10
N063-N062	N063	N062	8	231.82	0.0026	0.003	0.51	0.04	0.06
N064-N034	N064	N034	8	352.38	0.0047	0.009	0.90	0.06	0.09
N065-N064	N065	N064	8	192.34	0.0037	0.003	0.59	0.04	0.06
N066-N035	N066	N035	8	349.57	0.0024	0.027	0.98	0.12	0.18
N067-N066	N067	N066	8	351.73	0.0025	0.022	0.93	0.11	0.16
N068-N067	N068	N067	8	349.04	0.0024	0.015	0.83	0.09	0.14
N069-N068	N069	N068	8	349.92	0.0024	0.009	0.70	0.07	0.10
N070-N069	N070	N069	8	110.69	0.0024	0.003	0.49	0.04	0.06
N071-N036	N071	N036	8	351.14	0.0024	0.029	1.00	0.12	0.19
N072-N071	N072	N071	8	349.04	0.0024	0.022	0.92	0.11	0.16
N073-N072	N073	N072	8	350.89	0.0024	0.015	0.83	0.09	0.14
N074-N073	N074	N073	8	349.96	0.0024	0.009	0.70	0.07	0.10
N075-N074	N075	N074	8	121.01	0.0024	0.002	0.46	0.04	0.05
N076-N037	N076	N037	8	351.74	0.0024	0.027	0.98	0.12	0.18
N077-N076	N077	N076	8	350.59	0.0024	0.021	0.91	0.11	0.16
N078-N077	N078	N077	8	348.52	0.0024	0.015	0.82	0.09	0.13
N079-N078	N079	N078	8	348.41	0.0024	0.009	0.70	0.07	0.10
N080-N079	N080	N079	8	164.51	0.0024	0.003	0.52	0.04	0.07
N081-N044	N081	N044	8	48.75	0.0851	0.002	1.62	0.02	0.02
N082-N045	N082	N045	8	91.95	0.0302	0.002	1.10	0.02	0.03
N083-N046	N083	N046	8	49.33	0.0470	0.001	1.11	0.01	0.02
N084-N047	N084	N047	8	97.62	0.0163	0.002	0.89	0.02	0.03
N085-N048	N085	N048	8	45.43	0.0315	0.001	0.99	0.02	0.02
N086-N049	N086	N049	8	45.57	0.0033	0.001	0.44	0.03	0.04
N087-N057	N087	N057	8	228.58	0.0037	0.006	0.73	0.05	0.08
N088-N058	N088	N058	8	123.56	0.0047	0.004	0.72	0.04	0.06

Model Results - Existing Peak Wet Weather Flow (PWWF) Scenario

			l Results - Existii		veather Fio				
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
N089-I022	N089	1022	8	360.33	0.0025	0.041	1.12	0.15	0.22
N090-N089	N090	N089	8	296.23	0.0024	0.024	0.95	0.11	0.17
N091-N090	N091	N090	8	195.08	0.0032	0.024	1.06	0.11	0.16
N095-N096	N095	N096	12	316.95	0.0012	0.289	1.45	0.42	0.42
N096-N097	N096	N097	15	10.82	0.0011	0.289	1.39	0.39	0.31
N097-N031	N097	N031	15	69.55	0.0007	0.289	1.19	0.43	0.35
N098-N010	N098	N010	8	199.26	0.0086	0.005	0.94	0.04	0.06
N099-N008	N099	N008	8	45.44	0.0046	0.003	0.65	0.04	0.06
O001-O032	0001	0032	8	352.39	0.0024	0.242	1.79	0.39	0.58
O002-O001	0002	0001	8	357.97	0.0024	0.229	1.76	0.37	0.56
O003-O002	0003	0002	8	339.74	0.0025	0.224	1.79	0.36	0.54
0004-0003	0004	0002	8	116.62	0.0023	0.215	1.65	0.37	0.56
O005-O004	0005	0003	8	231.69	0.0021	0.213	0.83	0.09	0.30
0005-0004	0005	0004	8	309.84	0.0025	0.014	0.83	0.09	0.13
0007-0006	0007	0006	8	201.12	0.0024	0.014	0.80	0.09	0.13
0008-0007	0008	0007	8	200.99	0.0026	0.010	0.75	0.07 0.32	0.11
0009A-0004	O009A	0004	8	86.35	0.0029	0.201	1.85		0.49
0009-0009A	0009	O009A	8	116.52	0.0022	0.201	1.65	0.35	0.53
0012-0133	0012	0133	8	137.80	0.0023	0.136	1.52	0.28	0.42
0013-0012	0013	0012	8	117.21	0.0024	0.131	1.54	0.27	0.40
0014-0013	0014	0013	8	31.49	0.0035	0.089	1.58	0.20	0.30
O015A-O015	O015A	0015	8	139.99	0.0039	0.075	1.57	0.18	0.27
0015-0014	0015	0014	8	81.38	0.0042	0.089	1.69	0.19	0.28
O016A-O015A	O016A	O015A	8	105.26	0.0034	0.075	1.49	0.18	0.28
O016-O016A	0016	O016A	8	26.31	0.0027	0.075	1.39	0.19	0.29
0017-0031	0017	0031	8	276.21	0.0052	0.017	1.12	0.08	0.12
0018-0017	O018	0017	8	88.55	0.0022	0.012	0.75	0.08	0.13
0019-0018	O019	0018	8	165.32	0.0022	0.005	0.56	0.05	0.08
0020-0018	O020	0018	8	311.12	0.0024	0.007	0.64	0.06	0.09
0021-0016	O021	0016	8	177.54	0.0020	0.055	1.12	0.18	0.27
0022-0021	O022	0021	8	217.34	0.0024	0.052	1.19	0.16	0.25
0023-0022	O023	O022	8	250.45	0.0024	0.047	1.14	0.16	0.24
0024-0023	O024	O023	8	204.55	0.0023	0.014	0.79	0.09	0.13
0025-0024	O025	O024	8	272.79	0.0026	0.012	0.79	0.08	0.12
0026-0025	O026	O025	8	219.91	0.0023	0.007	0.66	0.07	0.10
0027-0026	O027	O026	8	226.94	0.0023	0.004	0.55	0.05	0.08
O028-O023	O028	O023	8	135.42	0.0038	0.030	1.19	0.11	0.17
0029-0013	O029	O013	8	259.61	0.0034	0.042	1.26	0.14	0.20
O030A-O029	O030A	O029	8	138.32	0.0027	0.016	0.87	0.09	0.14
O030-O030A	O030	O030A	8	109.69	0.0041	0.016	1.01	0.08	0.12
0031-0016	0031	0016	8	254.98	0.0060	0.021	1.26	0.08	0.13
O032-J013	O032	J013	8	341.01	0.0034	0.251	2.08	0.35	0.53
O133-O134A	0133	O134A	8	117.79	0.0023	0.140	1.55	0.28	0.42
O134A-O134	O134A	0134	8	167.80	0.0024	0.140	1.57	0.28	0.42
0134-0136	0134	0136	8	160.98	0.0025	0.149	1.61	0.29	0.43
0136-0138	O136	0138	8	59.68	0.0034	0.186	1.91	0.30	0.45
0137-0136	0137	O136	8	121.57	0.0035	0.038	1.23	0.13	0.19
O138-O009	0138	O009	8	84.73	0.0034	0.201	1.96	0.31	0.46
O139A-O138	O139A	0138	8	87.05	0.0060	0.015	1.12	0.07	0.11
O139-O139A	O139	O139A	6	48.58	0.0107	0.000	0.00	0.00	0.00
O140-O139A	O140	O139A	8	160.12	0.0000	0.000	0.00	0.00	0.00
0141-0140	0141	0140	6	87.24	0.0000	0.000	0.00	0.00	0.00
O142-O140	0142	0140	8	164.07	0.0000	0.000	0.00	0.00	0.00
0143-0142	0143	0142	6	55.73	0.0000	0.000	0.00	0.00	0.00
0144-0142	0144	0142	6	109.53	0.0000	0.000	0.00	0.00	0.00
OC03-V001	OC03	V001	21	13.56	0.0096	0.219	2.63	0.18	0.10
2002 4001	5555	4 0 0 T	<u> </u>	13.30	0.0090	0.219	2.03	0.10	0.10

Model Results - Existing Peak Wet Weather Flow (PWWF) Scenario

Pipe D		F.,		Results - Existii		vediner rie			Matau Dauth	
ROOL-ROOL ROOL RO	Pipe ID					Slope		•	-	d/D
ROD2-ROD2 ROD3 ROD4 ROD5 ROD5 ROD5 ROD6 RO										
BOD3-RO02 BOD3 RO02 R 359.63 D.0024 D.032 D.032 D.032 D.032 D.033 D.034 RO03 RO03 R S004-RO03 R S005-RO04 RO05 RO04 RO05 RO04 RO05 RO04 RO05 RO04 RO05 RO04 RO05 RO06 RO05 RO06 RO05 RO06 RO05 RO06 RO05 RO06 RO05 RO06 RO07 RO06 RO09 RO08 RO08 RO08 RO08 RO08 RO08 RO08 RO08 RO08 RO09 RO08 RO08 RO08 RO09 RO09		+	1							
SECH-RICO RODS RO		1								
SROS-ROOG ROOG RO										
RODE-RODS ROOF RO		+								
REDZ-RODG ROO7 ROO6 8 34915 0.0024 0.013 0.79 0.08 0.13 0.008-ROS ROO8 ROOS ROOS ROOS ROOS ROO5 8 337.74 0.0025 0.007 0.65 0.06 0.09 ROOS R		+								
RODS-ROSS ROOS ROSS 8 337.74 0.0025 0.007 0.65 0.06 0.09 RODS-ROSS ROOS ROOS 8 8 351.82 0.0024 0.001 0.32 0.04 0.07 ROLD-ROOS ROLD ROOS 8 8 55.7 0.0029 0.001 0.33 0.02 0.03 ROLL-ROLL RODS 8 8 55.7 0.0024 1.336 3.61 0.55 0.69 0.56 ROLL-ROLL ROLL ROLL 1.5 399.22 0.0029 1.336 3.40 0.62 0.50 ROLL-ROLL ROLL ROLL 1.5 399.24 0.0042 1.336 3.40 0.62 0.50 ROLL-ROLL ROLL ROLL 1.5 399.25 0.0047 1.336 3.55 0.60 0.48 ROLL-ROLL ROLL ROLL ROLL 1.5 399.25 0.0047 1.336 3.55 0.60 0.48		R006	1			0.0335	0.013		0.04	0.07
R009-R000 R000 R000 R000 R000 R R		R007	R006		349.15	0.0024	0.013	0.79	0.08	0.13
R010-R009 R010 R009 R0 R009 R011 R004 R011 R004 R011 R004 R011 R014 R011 R012 R011 I5 R014 R012 R011 I5 R014 R012 R011 I5 R014 R012 R011 I5 R014 R012 R013 R012 R013 I5 R015 R015 R014 R013 R012 R013 R014 R013 R014 R015	R008-R085	R008	R085		337.74	0.0025	0.007	0.65	0.06	0.09
R011-R011 R012 R011 R012 R011 15 399.04 0.0049 1.336 3.61 0.59 0.47 R012-R011 R012 R013 R012 15 399.24 0.0042 1.336 3.40 0.62 0.50 R014-R013 R014 R013 R014 R013 15 403.57 0.0042 1.336 3.40 0.62 0.50 R014-R013 R014 R015 R016	R009-R008	R009	R008	8	351.82	0.0024	0.003	0.52	0.04	0.07
R012-R011	R010-R009	R010	R009	8	86.57	0.0029	0.001	0.33	0.02	0.03
R013-R012	R011-R804	R011	R804	15	399.04	0.0049	1.336	3.61	0.59	0.47
R013-R013 R014 R015 R014 L R013 L5 A03-57 0.0042 L1.336 3.40 0.62 0.50 0.005 R015-R014 R015 S001 R B 346.96 0.0019 0.006 0.56 0.06 0.48 R016-S001 R016 S001 R B 346.96 0.0019 0.006 0.56 0.06 0.09 R017-R002 R017 R002 R017 R002 R S 290.61 0.0024 0.107 L1.46 0.24 0.36 R018-R017 R018 R017 R B 228.74 0.0024 0.007 L1.47 0.22 0.32 R019-R018 R019 R018 R R019 R019 R019 R019 R019 R019 R019 R0	R012-R011	R012	R011	15	399.22	0.0029	1.336	2.95	0.69	0.56
R015-R014	R013-R012	R013	R012	15	397.24	0.0042	1.336	3.40	0.62	0.50
R016-S001 R016 S001 8 346,96 0.0019 0.066 0.56 0.06 0.09 R017-R002 R017 R002 8 290,611 0.0024 0.107 1.46 0.24 0.35 R018-R017 R018 R017 8 283,74 0.0024 0.017 1.46 0.024 0.32 R018-R017 R018 8 293,31 0.0024 0.011 0.75 0.08 0.12 R02-R019 R020 R019 8 294,36 0.0024 0.011 0.75 0.08 0.12 R02-R021 R021 R017 8 355,97 0.0024 0.013 0.79 0.08 0.13 R02-R021 R022 R021 R022 R021	R014-R013	R014	R013	15	403.57	0.0042	1.336	3.40	0.62	0.50
R017-R002	R015-R014	R015	R014	15	399.25	0.0047	1.336	3.56	0.60	0.48
R017-R002	R016-S001	R016	S001	8	346.96	0.0019	0.006	0.56	0.06	0.09
RO18-R017 R018 R017 8 283.74 0.0024 0.087 1.37 0.22 0.32 R018-R018 R019 R018 8 350.31 0.0024 0.011 0.75 0.08 0.12 R020-R019 R020 R019 8 294.36 0.0024 0.018 0.37 0.01 0.15 R021-R017 R021 R017 8 355.97 0.0024 0.018 0.87 0.10 0.15 R022-R021 R022 R021 8 346.07 0.0024 0.013 0.79 0.08 0.13 R024-R018 R024 R018 8 260.63 0.0024 0.071 1.30 0.20 0.29 R025-R024 R025 R024 8 272.39 0.0024 0.071 1.30 0.20 0.29 R025-R026 R025 R026 R025 8 278.80 0.0024 0.09 0.71 0.07 0.12 0.18 R028-R027 <td>R017-R002</td> <td>R017</td> <td>R002</td> <td>8</td> <td>290.61</td> <td>0.0024</td> <td>0.107</td> <td>1.46</td> <td>0.24</td> <td>0.36</td>	R017-R002	R017	R002	8	290.61	0.0024	0.107	1.46	0.24	0.36
R019-R018 R019 R018 8 350.31 0.0024 0.011 0.75 0.08 0.12 R020-R019 R020 R019 8 294.36 0.0024 0.005 0.61 0.06 0.08 R021-R017 R021 R017 8 355.97 0.0024 0.013 0.79 0.08 0.13 R022-R021 R022 R021 8 346.07 0.0024 0.013 0.79 0.08 0.13 R024-R018 R024 R018 8 260.63 0.0024 0.007 0.64 0.06 0.09 R025-R024 R025 R024 8 272.39 0.0024 0.040 1.10 0.15 0.22 R026-R025 R026 R025 R026 8 278.88 0.0024 0.040 0.11 0.15 0.22 R028-R027 R028 R027 8 274.36 0.0024 0.005 0.60 0.06 0.08 R029-R028 R029 </td <td>R018-R017</td> <td>R018</td> <td>R017</td> <td>8</td> <td></td> <td>0.0024</td> <td>0.087</td> <td></td> <td></td> <td>0.32</td>	R018-R017	R018	R017	8		0.0024	0.087			0.32
R020-R019 R020 R019 8 294.36 0.0024 0.005 0.61 0.06 0.08 R021-R017 R011 R017 8 355.97 0.0024 0.013 0.87 0.10 0.15 R022-R021 R021 8 346.07 0.0024 0.013 0.79 0.08 0.13 R023-R022 R023 R022 8 342.82 0.0024 0.007 0.64 0.06 0.09 R024-R018 R024 R018 8 260.63 0.0024 0.071 1.30 0.20 0.29 R025-R024 R025 R024 8 276.06 0.0024 0.004 0.001 1.10 0.15 0.22 R026-R025 R026 R025 8 278.88 0.0024 0.009 0.71 0.07 0.12 0.18 R027-R026 R027 R026 8 276.07 0.0024 0.009 0.71 0.07 0.12 0.18 R028-R029<		R019	R018			0.0024	0.011	0.75	0.08	0.12
R021-R017 R021 R017 8 355.97 0.0024 0.018 0.87 0.10 0.15 R022-R021 R022 R021 8 346.07 0.0024 0.013 0.79 0.08 0.13 R023-R022 R022 8 342.82 0.0024 0.007 0.64 0.06 0.09 R024-R018 R024 R018 8 260.63 0.0024 0.0071 1.30 0.20 0.29 R025-R024 R025 R024 8 272.39 0.0024 0.040 1.10 0.15 0.22 R026-R025 R025 R025 8 278.88 0.0024 0.009 0.71 0.07 0.11 R028-R026 R026 R025 8 274.36 0.0024 0.005 0.60 0.06 0.08 R029-R028 R027 8 274.36 0.0024 0.005 0.60 0.06 0.08 R039-R028 R028 8 273.49 0.0024										
R022-R021 R022 R021 8 346.07 0.0024 0.013 0.79 0.08 0.13 R023-R022 R023 R022 8 342.82 0.0024 0.007 0.64 0.06 0.09 R025-R024 R025 R024 8 2272.39 0.0024 0.040 1.10 0.15 0.22 R026-R025 R026 R025 8 278.88 0.0024 0.026 0.97 0.12 0.18 R027-R026 R027 R026 8 276.07 0.0024 0.009 0.71 0.07 0.11 R028-R027 R028 R027 8 274.36 0.0024 0.005 0.60 0.06 0.08 R030-R029 R028 8 273.49 0.0024 0.005 0.60 0.06 0.08 R031-R024 R031 R029 8 272.90 0.0024 0.005 0.60 0.06 0.08 R031-R024 R031 R029 8 <td></td>										
R023-R022 R023 R022 8 342.82 0.0024 0.007 0.64 0.06 0.09 R024-R018 R024 R018 8 266.63 0.0024 0.040 1.10 0.20 0.29 R025-R024 R025 R026 R025 8 278.88 0.0024 0.040 1.10 0.15 0.22 R026-R025 R026 R027 R026 8 276.07 0.0024 0.009 0.71 0.07 0.11 R027-R026 R027 R026 8 276.07 0.0024 0.009 0.71 0.07 0.11 R028-R027 R028 8 274.36 0.0024 0.005 0.60 0.06 0.08 R029-R028 R029 8 272.349 0.0024 0.005 0.60 0.06 0.08 R031-R024 R031 R024 8 299.50 0.0027 0.029 1.05 0.12 0.18 R032-R031 R032 R031<		+								
R024-R018 R024 R018 8 260.63 0.0024 0.071 1.30 0.20 0.29 R025-R024 R025 R024 8 272.39 0.0024 0.040 1.10 0.15 0.22 R026-R025 R026 R025 8 278.88 0.0024 0.006 0.97 0.12 0.18 R027-R026 R027 R026 8 276.07 0.0024 0.009 0.71 0.07 0.11 R028-R027 R028 R027 8 274.36 0.0024 0.005 0.60 0.06 0.08 R039-R028 R029 R028 8 277.49 0.0024 0.005 0.60 0.06 0.08 R031-R024 R031 R024 8 299.50 0.0027 0.029 1.05 0.12 0.18 R031-R031 R032 R031 8 302.97 0.0024 0.025 0.96 0.12 0.13 R033-R031 R033 8		1								
R025-R024 R025 R024 8 272.39 0.0024 0.040 1.10 0.15 0.22 R026-R025 R026 R025 8 278.88 0.0024 0.026 0.97 0.12 0.18 R027-R026 R027 R026 8 276.07 0.0024 0.009 0.71 0.07 0.11 R028-R027 R028 R027 8 274.36 0.0024 0.005 0.60 0.06 0.08 R039-R028 R029 R028 8 272.90 0.0024 0.003 0.49 0.04 0.06 R031-R024 R031 R024 8 299.50 0.0027 0.029 1.05 0.12 0.18 R031-R024 R031 R024 8 299.50 0.0027 0.029 1.05 0.12 0.18 R031-R024 R031 R024 8 299.50 0.0024 0.025 0.96 0.12 0.18 R031-R033 R031 8										
R026-R025 R026 R027 R026 8 278.88 0.0024 0.026 0.97 0.12 0.18 R027-R026 R027 R026 8 276.07 0.0024 0.009 0.71 0.07 0.11 R028-R027 R028 R027 8 273.49 0.0024 0.005 0.60 0.06 0.08 R029-R028 R029 R028 8 273.49 0.0024 0.003 0.49 0.04 0.06 R031-R024 R031 R024 8 299.50 0.0027 0.029 1.05 0.12 0.18 R032-R031 R032 R031 8 302.97 0.0024 0.025 0.96 0.12 0.18 R034-R033 R034 R033 8 245.20 0.0029 0.019 0.95 0.10 0.15 R035-R034 R035 R034 R033 8 273.43 0.0021 0.017 0.82 0.10 0.15 R035-R035 </td <td></td> <td>+</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		+								
R027-R026 R027 R026 8 276.07 0.0024 0.009 0.71 0.07 0.11 R028-R027 R028 R027 8 274.36 0.0024 0.005 0.60 0.06 0.08 R029-R028 R029 R028 8 273.49 0.0024 0.003 0.49 0.04 0.06 R030-R029 R030 R029 8 272.90 0.0024 0.003 0.49 0.04 0.06 R031-R024 R031 R024 8 299.50 0.0027 0.029 1.05 0.12 0.18 R032-R031 R032 R031 8 302.97 0.0024 0.025 0.96 0.12 0.17 R033-R032 R033 R032 8 245.20 0.0029 0.019 0.95 0.10 0.15 R034-R033 R034 R033 8 47.27 0.0021 0.017 0.82 0.10 0.15 R035-R035 R036 R035 <td></td> <td>+</td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		+	1							
R028-R027 R028 R027 8 274.36 0.0024 0.005 0.60 0.06 0.08 R029-R028 R029 R028 8 273.49 0.0024 0.005 0.60 0.06 0.08 R030-R029 R030 R029 8 272.90 0.0024 0.003 0.49 0.04 0.06 R031-R024 R031 R024 8 299.50 0.0027 0.029 1.05 0.12 0.18 R032-R031 R032 R031 8 302.97 0.0024 0.025 0.96 0.12 0.17 R034-R033 R034 R033 8 245.20 0.0029 0.019 0.95 0.10 0.15 R034-R033 R034 R033 8 245.20 0.0029 0.017 0.82 0.10 0.15 R034-R033 R036 R035 8 286.00 0.0023 0.008 0.68 0.07 0.10 R034-R035 R036 R035 </td <td></td> <td>+</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		+								
R029-R028 R029 R030 R029 8 273.49 0.0024 0.005 0.60 0.06 0.08 R030-R029 R030 R029 8 272.90 0.0024 0.003 0.49 0.04 0.06 R031-R024 R031 R024 8 299.50 0.0027 0.029 1.05 0.12 0.18 R032-R031 R032 R031 8 302.97 0.0024 0.025 0.96 0.12 0.17 R033-R032 R033 R032 8 245.20 0.0029 0.019 0.95 0.10 0.15 R034-R033 R034 8 286.00 0.0021 0.017 0.82 0.10 0.15 R035-R034 R035 R036 R035 R036 R035 R036 R036-8035 R036 R036 R035 R036 R038 R026-46 0.0024		1								
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R053-R052 R053 R052 8 311.92 0.0024 0.019 0.89 0.10 0.15 R054-R053 R054 R053 8 316.77 0.0021 0.014 0.77 0.09 0.14 R055-R054 R055 R054 8 326.35 0.0024 0.005 0.61 0.05 0.08	R051-R045	R051	R045	8	319.96	0.0024	0.036	1.07	0.14	0.21
R054-R053 R054 R053 8 316.77 0.0021 0.014 0.77 0.09 0.14 R055-R054 R055 R054 8 326.35 0.0024 0.005 0.61 0.05 0.08	R052-R051	R052	R051	8	309.16	0.0024	0.028	0.99		0.18
R055-R054 R055 R054 8 326.35 0.0024 0.005 0.61 0.05 0.08	R053-R052	R053	R052	8	311.92	0.0024	0.019	0.89	0.10	0.15
	R054-R053	R054	R053	8	316.77	0.0021	0.014	0.77	0.09	0.14
	R055-R054	R055	R054	8	326.35	0.0024	0.005	0.61	0.05	0.08
	R056-R055	R056	R055		271.45	0.0065	0.003	0.68	0.03	0.05

Model Results - Existing Peak Wet Weather Flow (PWWF) Scenario

			l Results - Existii		veatner Fio				
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity	Water Depth	d/D
R057-R051	R057	R051	(inches) 8	203.40	0.0024	0.005	(ft/s) 0.60	(feet) 0.06	0.08
R058-R052	R058	R052	8	200.69	0.0029	0.005	0.65	0.05	0.08
R059-R053	R059	R053	8	200.67	0.0024	0.005	0.61	0.06	0.08
R060-R054	R060	R054	8	289.45	0.0214	0.005	1.30	0.03	0.05
R061-R083	R061	R083	8	345.01	0.0020	0.008	0.65	0.07	0.10
R062-R061	R062	R061	8	334.33	0.0020	0.008	0.64	0.07	0.11
R063-R087	R063	R087	8	178.43	0.0020	0.008	0.43	0.07	0.06
R064-R084	R064	R084	8	344.71	0.0020	0.002	0.43	0.04	
	-								0.12
R065-R064 R066-R086	R065 R066	R064 R086	8	335.34 177.02	0.0020 0.0020	0.008 0.002	0.64	0.07 0.04	0.11
R067-R048	R067	R048	8	348.37	0.0020	0.002	0.44	0.04	0.06 0.13
	R068	1							
R068-R067		R067	8	349.66	0.0020	0.011	0.70	0.08	0.12
R069-R068	R069	R068	8	349.57	0.0020	0.008	0.64	0.07	0.11
R070-R069	R070	R069	8	351.74	0.0020	0.005	0.55	0.06	0.08
R071-R049	R071	R049	8	348.46	0.0020	0.014	0.75	0.09	0.13
R072-R071	R072	R071	8	349.87	0.0020	0.011	0.71	0.08	0.12
R073-R072	R073	R072	8	351.64	0.0020	0.008	0.64	0.07	0.11
R074-R073	R074	R073	8	348.30	0.0020	0.005	0.55	0.05	0.08
R076-R075	R076	R075	8	37.90	0.0676	0.019	2.85	0.05	0.07
R077-R076	R077	R076	8	438.48	0.0038	0.006	0.75	0.05	0.08
R078-R077	R078	R077	8	287.88	0.0056	0.004	0.77	0.04	0.06
R079-R078	R079	R078	8	198.96	0.0040	0.004	0.68	0.04	0.07
R080-R076	R080	R076	8	233.86	0.0047	0.011	0.95	0.07	0.10
R081-R080	R081	R080	8	280.29	0.0034	0.009	0.80	0.06	0.10
R082-R081	R082	R081	8	350.63	0.0040	0.003	0.60	0.04	0.06
R083-R046	R083	R046	8	324.60	0.0020	0.011	0.71	0.08	0.12
R084-R047	R084	R047	8	352.68	0.0020	0.014	0.75	0.09	0.13
R085-R007	R085	R007	8	359.08	0.0023	0.010	0.72	0.07	0.11
R086-R065	R086	R065	8	338.68	0.0020	0.005	0.55	0.06	0.08
R087-R062	R087	R062	8	339.00	0.0020	0.005	0.55	0.06	0.08
R088-R074	R088	R074	8	155.65	0.0019	0.002	0.39	0.03	0.05
R089-R070	R089	R070	8	153.82	0.0020	0.002	0.39	0.03	0.05
R801A-R801	R801A	R801	8	331.58	0.0024	0.141	1.57	0.28	0.42
R801-R800	R801	R800	8	13.72	0.4110	1.478	19.35	0.25	0.37
R802-R801A	R802	R801A	8	329.36	0.0024	0.141	1.58	0.28	0.42
R803-R801	R803	R801	15	15.39	0.0325	1.336	7.18	0.36	0.28
R804-R803	R804	R803	15	399.94	0.0042	1.336	3.41	0.62	0.50
S001-W015	S001	W015	10	286.25	0.0022	0.007	0.62	0.06	0.07
S002-R015	S002	R015	15	226.30	0.0040	1.331	3.35	0.63	0.50
S003A-S003	S003A	S003	18	283.85	0.0017	1.158	2.33	0.67	0.45
S003-S002	S003	S002	18	228.18	0.0027	1.158	2.78	0.59	0.39
S004-S003A	S004	S003A	18	273.63	0.0030	1.114	2.85	0.56	0.37
S012-S002	S012	S002	10	330.72	0.0008	0.174	1.11	0.38	0.46
S013-S012	S013	S012	10	335.12	0.0010	0.168	1.18	0.36	0.43
S014-S013	S014	S013	10	319.75	0.0014	0.168	1.33	0.32	0.39
S015-S014	S015	S014	10	332.47	0.0016	0.142	1.33	0.29	0.34
S016-S015	S016	S015	10	325.11	0.0011	0.137	1.14	0.31	0.37
S017-S016	S017	S016	8	335.44	0.0025	0.010	0.73	0.07	0.11
S019-S018	S019	S018	8	121.45	0.0023	0.015	0.81	0.09	0.14
S020-S019	S020	S019	8	319.84	0.0024	0.011	0.74	0.08	
S021-S812	S021	S812	8	332.92	0.0022	0.059	1.20	0.18	
S022-S021	S022	S021	8	320.66	0.0018	0.041	1.01	0.16	
S023-S022	S023	S022	8	319.57	0.0023	0.015	0.82	0.09	
S024-S023	S024	S023	8	180.13	0.0023	0.013	0.60	0.07	0.10
S025-S022	S025	S022	8	327.51	0.0013	0.014	0.89	0.08	
S025-3022 S026-S025	S025	S025	8	265.04	0.0325	0.006	1.56	0.03	0.12
3020-3023	3020	3023	l 0	203.04	0.0323	0.006	1.50	0.03	0.05

Model Results - Existing Peak Wet Weather Flow (PWWF) Scenario

			l Results - Existii		veather Fio			_	
Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
S027-S030	ID S027	S030	(inches)	(feet) 300.57	0.0045	(MGD) 0.006	(ft/s) 0.78	(feet) 0.05	0.08
S027-S030 S029-S014	S027	S014	8	288.81	0.0043	0.000	1.40	0.03	0.08
S030-S021	S030	S021	8	239.80	0.0033	0.018	0.65	0.07	0.11
S811-S016	S811	S016	8	320.57	0.0022	0.008	1.46	0.07	0.10
S812-S811	S812	S811	8	318.28	0.0023	0.117	1.35	0.20	0.38
S813-S812	S813	S812	8	334.70	0.0018	0.113	0.94	0.27	0.41
S814-S813	S814	S813	8	305.88	0.0030	0.018	0.94	0.09	0.14
S815-S814	S815	S814	8	17.31	0.0480	0.010	2.08	0.04	0.06
S817-S812	S817	S812	8	324.55	0.0020	0.029	0.94	0.13	0.19
S818-S817 S819-S818	S818 S819	S817	8	249.78	0.0012	0.002 0.002	0.33	0.04 0.04	0.06
		S818	8	21.21	0.0009		0.31		0.06
S820-S817	S820	S817	8	328.59	0.0043	0.018	1.07	0.09	0.13
V001-V800	V001	V800	21	321.67	0.0033	0.222	1.82	0.23	0.13
V002-OC03	V002	OC03	8	40.60	0.2098	0.219	8.79	0.11	0.17
V003-V002	V003	V002	8	7.81	0.0077	0.164	2.50	0.22	0.33
V004-V002	V004	V002	8	252.13	0.0070	0.055	1.76	0.13	0.20
V004-V003	V004	V003	8	226.01	0.0020	0.164	1.54	0.32	0.48
V005-V004	V005	V004	8	377.67	0.0020	0.181	1.56	0.34	0.51
V006-V005	V006	V005	8	375.04	0.0020	0.175	1.55	0.33	0.50
V007-V006	V007	V006	8	275.46	0.0020	0.134	1.46	0.28	0.43
V008-V007	V008	V007	8	269.33	0.0020	0.122	1.42	0.27	0.41
V009-V008	V009	V008	8	269.11	0.0020	0.108	1.36	0.26	0.38
V010-V009	V010	V009	8	272.90	0.0016	0.019	0.76	0.11	0.17
V011-V010	V011	V010	8	241.98	0.0024	0.012	0.78	0.08	0.12
V012-V004	V012	V004	8	204.18	0.0079	0.034	1.60	0.10	0.15
V013-V012	V013	V012	8	202.31	0.0021	0.030	0.96	0.13	0.20
V014-V013	V014	V013	8	378.25	0.0020	0.018	0.81	0.10	0.15
V015-V014	V015	V014	8	347.44	0.0020	0.009	0.67	0.08	0.11
V016-V015	V016	V015	8	227.75	0.0015	0.007	0.57	0.07	0.11
V017-V016	V017	V016	8	237.50	0.0020	0.007	0.62	0.07	0.10
V018-V006	V018	V006	8	278.45	0.0023	0.035	1.05	0.14	0.21
V019-V018	V019	V018	8	273.69	0.0020	0.033	0.98	0.14	0.21
V020-V019	V020	V019	8	286.67	0.0020	0.028	0.93	0.13	0.19
V021-V020	V021	V020	8	107.40	0.0117	0.002	0.81	0.03	0.04
V022-V007	V022	V007	8	391.45	0.0020	0.009	0.66	0.07	0.11
V023-V022	V023	V022	8	388.78	0.0020	0.004	0.51	0.05	0.07
V024-V009	V024	V009	8	334.89	0.0020	0.087	1.28	0.23	0.34
V025-V010	V025	V010	8	213.17	0.0024	0.005	0.58	0.05	0.08
V027-OC07	V027	OC07	8	363.13	0.0181	0.007	1.30	0.04	0.06
V028-V027	V028	V027	8	392.19	0.0021	0.000	0.00	0.00	0.00
V029-OC04	V029	OC04	8	17.31	0.2899	0.167	9.09	0.09	0.14
V030-V029	V030	V029	8	169.97	0.0125	0.112	2.67	0.16	0.24
V031-V030	V031	V030	8	301.99	0.0020	0.063	1.17	0.19	0.29
V032-V031	V032	V031	8	525.05	0.0022	0.031	0.99	0.13	0.19
V033-V013	V033	V013	8	197.00	0.0023	0.007	0.65	0.06	0.09
V034-V033	V034	V033	8	198.55	0.0020	0.006	0.58	0.06	0.09
V035-V014	V035	V014	8	183.83	0.0026	0.005	0.61	0.05	0.08
V036-V020	V036	V020	8	279.62	0.0024	0.021	0.91	0.11	0.16
V800-Y812	V800	Y812	21	671.98	0.0016	0.222	1.39	0.28	0.16
V804-V008	V804	V008	8	392.85	0.0044	0.012	0.94	0.07	0.10
V806-V024	V806	V024	8	367.22	0.0045	0.082	1.70	0.18	0.27
V808-V806	V808	V806	8	158.48	0.0080	0.038	1.65	0.11	0.16
V809A-V808	V809A	V808	8	295.92	0.0030	0.038	1.17	0.13	0.20
V809-V809A	V809	V809A	8	18.49	0.0465	0.038	3.07	0.07	0.10
V812-V809	V812	V809	8	204.71	0.0027	0.038	1.13	0.14	0.21
V813-V812	V813	V812	8	381.88	0.0040	0.031	1.23	0.11	0.17

Model Results - Existing Peak Wet Weather Flow (PWWF) Scenario

Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
•	ID	ID	(inches)	(feet)	•	(MGD)	(ft/s)	(feet)	u, D
W002-OC09	W002	OC09	8	104.09	0.0549	0.362	6.32	0.20	0.30
W003-W002	W003	W002	8	363.56	0.0020	0.358	1.59	0.67	1.00
W004-W003	W004	W003	8	359.52	0.0020	0.346	1.77	0.55	0.82
W005-W004	W005	W004	8	338.50	0.0020	0.346	1.77	0.55	0.82
W006-OC09	W006	OC09	10	335.95	0.0017	0.444	1.83	0.54	0.65
W007-W006	W007	W006	10	328.62	0.0016	0.432	1.79	0.54	0.65
W008-W007	W008	W007	10	332.15	0.0016	0.424	1.75	0.54	0.65
W010-W008	W010	W008	8	164.00	0.0048	0.081	1.72	0.17	0.26
W011-W010	W011	W010	10	172.33	0.0031	0.074	1.41	0.17	0.21
W012-W011	W012	W011	10	336.40	0.0016	0.074	1.11	0.20	0.25
W013A-W013	W013A	W013	8	339.38	0.0020	0.044	1.06	0.16	0.24
W013-W012	W013	W012	10	245.70	0.0016	0.057	1.04	0.18	0.21
W014-W013	W014	W013	10	85.39	0.0016	0.013	0.67	0.09	0.10
W015-W014	W015	W014	10	333.82	0.0016	0.013	0.66	0.09	0.10
W016-W008	W016	W008	8	315.15	0.0096	0.105	2.38	0.17	0.25
W017-W016	W017	W016	8	191.32	0.0035	0.096	1.61	0.21	0.31
W018-W017	W018	W017	8	138.34	0.0038	0.092	1.65	0.20	0.30
W019-W018	W019	W018	8	144.93	0.0020	0.085	1.28	0.22	0.34
W020-W019	W020	W019	8	282.09	0.0021	0.050	1.13	0.17	0.25
W021-W020	W021	W020	8	316.64	0.0019	0.026	0.89	0.13	0.19
W022-W021	W022	W021	8	175.83	0.0021	0.012	0.73	0.08	0.13
W023-W019	W023	W019	8	297.30	0.0020	0.016	0.78	0.10	0.15
W024-W023	W024	W023	8	269.07	0.0020	0.008	0.65	0.07	0.11
W025-W024	W025	W024	8	296.38	0.0020	0.004	0.52	0.05	0.08
W026-W024	W026	W024	8	133.78	0.0027	0.004	0.59	0.05	0.07
W027-W009	W027	W009	8	306.80	0.0023	0.238	1.77	0.38	0.58
W028-W027	W028	W027	8	307.72	0.0020	0.235	1.66	0.40	0.60
W029-W028	W029	W028	8	182.55	0.0051	0.235	2.36	0.30	0.45
W030-W029	W030	W029	8	77.43	0.0021	0.020	0.86	0.11	0.16
W031-W030	W031	W030	8	280.12	0.0020	0.018	0.81	0.10	0.15
W032-W031	W032	W031	8	329.52	0.0020	0.013	0.74	0.09	0.13
W033-W032	W033	W032	8	233.99	0.0020	0.010	0.68	0.08	0.12
W034-W033	W034	W033	8	330.81	0.0020	0.005	0.57	0.06	0.09
W035-W034	W035	W034	8	66.47	0.0022	0.003	0.48	0.04	0.06
W036-W034	W036	W034	8	83.81	0.0020	0.003	0.46	0.04	0.06
W037-W029	W037	W029	8	140.65	0.0022	0.212	1.70	0.36	0.54
W038-W037	W038	W037	8	276.97	0.0020	0.133	1.44	0.29	0.43
W039-W038	W039	W038	8	273.40	0.0020	0.133	1.45	0.28	0.43
W040-W039	W040	W039	8	372.46	0.0020	0.125	1.42	0.28	0.41
W041-W040	W041	W040	8	247.19	0.0020	0.114	1.38	0.26	0.39
W042-W041	W042	W041	8	300.53	0.0020	0.110	1.37	0.26	0.39
W043-W042	W043	W042	8	108.50	0.0369	0.110	3.89	0.12	0.18
W044-W039	W044	W039	8	190.68	0.0039	0.004	0.65	0.04	0.06
W045-W040	W045	W040	8	147.93	0.0020	0.007	0.61	0.06	0.10
W046-W045	W046	W045	8	236.00	0.0020	0.005	0.56	0.06	0.08
W047-W037	W047	W037	8	176.63	0.0020	0.077	1.24	0.21	0.32
W048-W047	W048	W047	8	346.48	0.0020	0.075	1.24	0.21	0.31
W049-W048	W049	W048	8	347.76	0.0020	0.070	1.21	0.20	0.30
W050-W049	W050	W049	8	201.18	0.0020	0.013	0.74	0.09	0.13
W051-W050	W051	W050	8	295.25	0.0020	0.011	0.70	0.08	0.12
W052-W051	W052	W051	8	291.54	0.0020	0.006	0.58	0.06	0.09
W053-W052	W053	W052	8	82.71	0.0031	0.002	0.47	0.03	0.04
W054-W049	W054	W049	8	134.84	0.0045	0.052	1.49	0.14	0.21
W055-W054	W055	W054	8	350.69	0.0023	0.035	1.04	0.14	0.21
W056-W055	W056	W055	8	300.89	0.0027	0.010	0.76	0.07	0.11
W056-W057	W056	W057	8	300.86	0.0024	0.010	0.72	0.07	0.11

Model Results - Existing Peak Wet Weather Flow (PWWF) Scenario

			l Results - Existii		veather Fio				
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
Y001-Y806	Y001	Y802	8	323.27	0.0258	0.017	1.96	0.05	0.08
Y002-Y022	Y002	Y022	8	186.17	0.0047	0.017	1.08	0.08	0.12
Y003-Y002	Y003	Y002	8	129.16	0.0054	0.017	1.14	0.08	0.12
Y004-Y003	Y004	Y003	8	203.18	0.0053	0.017	1.13	0.08	0.12
Y005-Y806	Y005	Y806	8	337.49	0.0027	0.175	1.73	0.31	0.46
Y006-Y005	Y006	Y005	8	339.60	0.0028	0.175	1.76	0.30	0.45
Y007-Y006	Y007	Y006	8	150.72	0.0029	0.149	1.71	0.27	0.41
Y008-Y007	Y008	Y007	8	186.66	0.0023	0.126	1.65	0.25	0.41
Y009-Y008	Y009	Y008	8	225.62	0.0035	0.126	1.74	0.23	0.36
Y010-Y009	Y010	Y009	8	101.96	0.0033	0.120	1.19	0.24	0.30
Y010-Y010	Y011	Y010	8	204.62	0.0029	0.041	1.19	0.14	0.21
Y011-Y010 Y012-Y011	Y012	Y010	8	140.10	0.0023	0.041	1.13	0.14	0.21
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Y013-Y810	Y013	Y810	8	362.09	0.0031	0.059	1.35	0.17	0.25
Y014-Y013	Y014	Y013	8	345.76	0.0036	0.036	1.22	0.12	0.19
Y015-V030	Y015	V030	8	208.01	0.0202	0.019	1.88	0.06	0.09
Y016-Y015	Y016	Y015	8	218.23	0.0024	0.013	0.79	0.08	0.13
Y017-V031	Y017	V031	8	217.44	0.0075	0.018	1.30	0.08	0.11
Y018-Y017	Y018	Y017	8	207.25	0.0016	0.014	0.71	0.10	0.15
Y019-V032	Y019	V032	8	442.51	0.0074	0.019	1.31	0.08	0.12
Y020-V029	Y020	V029	8	25.90	0.0981	0.055	4.46	0.07	0.10
Y021-Y019	Y021	Y019	8	36.84	0.0312	0.008	1.68	0.04	0.06
Y022-Y001	Y022	Y001	8	86.46	0.0063	0.017	1.19	0.08	0.11
Y023-Y810	Y023	Y810	8	273.34	0.0018	0.000	0.00	0.00	0.00
Y024-Y014	Y024	Y014	8	296.48	0.0033	0.036	1.20	0.13	0.19
Y810-Y808	Y810	Y808	8	326.58	0.0026	0.079	1.38	0.20	0.30
Y811-Y809	Y811	Y809	12	148.65	0.0078	0.071	1.88	0.13	0.13
Z001-Z831	Z001	Z831	8	91.85	0.0072	0.131	2.29	0.20	0.30
Z002A-Z831	Z002A	Z831	10	394.36	0.0030	0.118	1.59	0.22	0.26
Z002-Z001	Z002	Z001	8	301.97	0.0017	0.131	1.35	0.30	0.44
Z003-Z002	Z003	Z002	8	62.09	0.0027	0.113	1.55	0.24	0.36
Z004-Z002A	Z004	Z002A	10	319.44	0.0020	0.118	1.38	0.24	0.29
Z004-Z003	Z004	Z003	8	251.02	0.0019	0.096	1.29	0.24	0.37
Z005-Z004	Z005	Z004	8	287.84	0.0020	0.071	1.21	0.20	0.31
Z006-Z005	Z006	Z005	8	273.44	0.0021	0.066	1.20	0.19	0.29
Z007-Z029	Z007	Z029	8	230.35	0.0020	0.033	0.97	0.14	0.21
Z008-Z007	Z008	Z007	8	357.48	0.0022	0.033	1.00	0.13	0.20
Z009-Z008	Z009	Z008	8	223.11	0.0021	0.015	0.78	0.09	0.14
Z010-Z009	Z010	Z009	8	112.84	0.0039	0.000	0.00	0.00	0.00
Z011-Z010	Z011	Z010	8	425.76	0.0040	0.000	0.00	0.00	0.00
Z012-Z011	Z012	Z011	8	18.21	0.0033	0.000	0.00	0.00	0.00
Z015-Z028	Z015	Z028	12	153.83	0.0026	0.071	1.28	0.17	0.17
Z016-Z800	Z016	Z800	8	303.39	0.0045	0.079	1.67	0.17	0.26
Z017-Z016	Z017	Z016	8	290.36	0.0003	0.006	0.31	0.10	0.14
Z018-Z004	Z018	Z004	8	333.81	0.0020	0.143	1.46	0.30	0.45
Z019-Z018	Z019	Z018	8	355.97	0.0023	0.090	1.36	0.22	0.33
Z020-Z019	Z020	Z019	8	289.86	0.0020	0.084	1.27	0.22	0.33
Z021-Z022	Z021	Z022	8	221.72	0.0020	0.042	1.05	0.16	0.23
Z021-Z022 Z022-Z023	Z021	Z022	8	217.99	0.0020	0.042	0.98	0.10	0.23
Z022-Z023 Z023-Z024	Z022	Z023	12	22.53	0.0013	0.047	1.37	0.13	0.12
Z023-Z024 Z024-Z015	Z023	Z015	12	145.53	0.0044	0.047	1.25	0.12	0.12
Z024-Z015 Z025-Z015	Z024 Z025	Z015 Z015	6	69.07	0.0027	0.003	0.55	0.16	0.16
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Z026-Z025	Z026	Z025	6	361.94	0.0012	0.008	0.56 0.97	0.09	0.17
Z029-Z021	Z029	Z021	8	230.68	0.0020	0.033		0.14	0.21
Z029-Z030	Z028	Z030	12	129.23	0.0027	0.071	1.30	0.16	0.16
Z030-Z031	Z030	Z031	12	165.25	0.0209	0.071	2.66	0.10	0.10
Z031-Y811	Z031	Y811	12	241.87	0.0073	0.071	1.84	0.13	0.13

Model Results - Future Peak Dry Weather Flow (PDWF) Scenario

Dine ID	From	То	Diameter	Length		Flow	Velocity	Water Depth	4/0
Pipe ID	ID	ID	(inches)	(feet)	Slope	(MGD)	(ft/s)	(feet)	d/D
B001-C001	B001	C001	10	279.79	0.0012	0.050	0.90	0.18	0.22
B002-B001	B002	B001	10	135.29	0.0012	0.046	0.87	0.17	0.21
B003-B002	B003	B002	10	122.75	0.0012	0.043	0.86	0.17	0.20
B004-B003	B004	B003	10	137.42	0.0012	0.032	0.79	0.14	0.17
B005-B004	B005	B004	10	131.33	0.0012	0.021	0.70	0.12	0.14
B006-B005	B006	B005	10	127.26	0.0012	0.016	0.63	0.10	0.12
B007-B006	B007	B006	10	259.35	0.0012	0.006	0.47	0.06	0.08
B008-B007	B008	B007	8	269.59	0.0026	0.006	0.63	0.06	0.08
B009-B008	B009	B008	8	259.91	0.0020	0.003	0.48	0.04	0.07
B010-B009	B010	B009	8	89.19	0.0020	0.001	0.31	0.02	0.03
B011-B006	B011	B006	8	270.78	0.0019	0.006	0.58	0.06	0.09
B012-B011	B012	B011	8	260.24	0.0020	0.003	0.50	0.05	0.07
B013-B012	B013	B012	8	200.15	0.0020	0.001	0.35	0.03	0.04
B014-B004	B014	B004	8	270.76	0.0020	0.011	0.71	0.08	0.12
B015-B014	B015	B014	8	261.26	0.0020	0.009	0.66	0.07	0.11
B016-B015	B016	B015	8	214.26	0.0024	0.004	0.54	0.05	0.07
B017-B016	B017	B016	8	198.07	0.0020	0.003	0.46	0.04	0.06
B018-B015	B018	B015	8	179.03	0.0020	0.001	0.36	0.03	0.04
B019-H022	B019	H022	10	176.55	0.0020	0.136	1.45	0.26	0.31
B020-B045	B020	B045	8	273.36	0.0032	0.123	1.68	0.24	0.36
B021-B020	B021	B020	8	327.92	0.0032	0.108	1.63	0.22	0.34
B022-B021	B022	B021	8	124.17	0.0038	0.035	1.24	0.12	0.18
B023-B022	B023	B022	8	192.07	0.0041	0.021	1.10	0.09	0.14
B024-B023	B024	B023	8	65.73	0.0037	0.005	0.68	0.05	0.07
B025-B024	B025	B024	8	243.62	0.0040	0.004	0.67	0.04	0.07
B026A-B026	B026A	B026	8	48.20	0.0027	0.003	0.52	0.04	0.06
B026-B025	B026	B025	8	17.74	0.0034	0.003	0.56	0.04	0.06
B028-B022	B028	B022	8	262.11	0.0072	0.014	1.19	0.07	0.10
B029-B028	B029	B028	8	207.80	0.0040	0.005	0.72	0.05	0.07
B030-B029	B030	B029	8	214.83	0.0040	0.004	0.65	0.04	0.06
B031-B028	B031	B028	8	259.05	0.0048	0.007	0.85	0.05	0.08
B032-B031	B032	B031	8	255.69	0.0042	0.006	0.74	0.05	0.07
B033-B032	B033	B032	8	249.92	0.0040	0.003	0.60	0.04	0.05
B034-CO17	B034	C017	8	292.13	0.0023	0.015	0.81	0.09	0.14
B035-B034	B035	B034	8	255.96	0.0020	0.008	0.65	0.07	0.11
B036-B035	B036	B035	8	349.45	0.0020	0.004	0.51	0.05	0.07
B037-B034	B037	B034	8	355.71	0.0027	0.006	0.63	0.05	0.08
B038-B035	B038	B035	8	166.70	0.0024	0.003	0.51	0.04	0.06
B039-B002	B039	B002	8	241.67	0.0020	0.003	0.49	0.05	0.07
B040-B039	B040	B039	8	97.74	0.0024	0.001	0.36	0.03	0.04
B041-B019	B041	B019	10	261.62	0.0034		0.84	0.07	0.08
B045-B019	B045	B019	8	55.20	0.0011	0.125	1.13	0.33	0.49
C001-I017A	C001	I017A	15	299.35	0.0015		1.79		0.38
C002-C003	C002	C003	8	248.27	0.0131		1.21	0.04	0.07
C003-C005	C003	C005	8	352.17	0.0024		1.24	0.18	0.27
C004-C058	C004	C058	12	10.63	0.0085	0.000	0.00	0.00	0.00
C004-I044	C004	1044	12	338.54	0.0020	0.178	1.53	0.28	0.28
C005-C004	C005	C004	8	350.88	0.0024	0.061	1.24	0.18	0.27
C006-C004	C006	C004	12	338.27	0.0040		1.69	0.18	0.18
C007-I102	C007	1102	18	315.96	0.0015	1.280	2.30	0.73	0.49
C008-C007	C008	C007	15	611.45	0.0026	1.280	2.83	0.69	0.56
C009-C008	C009	C008	15	16.65	0.0024	1.280	2.29	0.48	0.38
C010-D012	C010	D012	8	291.77	0.0049	0.027	1.26	0.10	0.15
C011-C010	C011	C010	8	299.80	0.0048	0.022	1.17	0.09	0.14
C012A-C001	C012A	C001	12	236.19	0.0012	0.183	1.27	0.33	0.33
C012-C001	C012	C001	12	261.24	0.0015	0.256	1.52	0.37	0.37

Model Results - Future Peak Dry Weather Flow (PDWF) Scenario

C013-C012A C013A C012A 10 274-22 0.0010 0.183 1.19 0.38 0.0014-0012 0.013 0.014 0.013 12 240.25 0.0013 0.252 1.42 0.38 0.0014-0013 0.14 0.013 12 130.42 0.0015 0.252 1.51 0.36 0.0016-0015 0.014 0.015 0.014 0.013 12 130.42 0.0015 0.252 1.51 0.36 0.0016-0015 0.016 0.015 0.015 0.12 1.853.68 0.0015 0.252 1.51 0.36 0.0016-0015 0.016 0.015 0.015 0.016 0.015 0.016 0.015 0.016 0.015 0.016 0.015 0.016 0.016 0.016 0.017 0.016 0.017 0.016 0.017 0.016 0.017 0.016 0.017 0.016 0.017 0.016 0.018	Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
C015-C012	Ріре ід	ID	ID	(inches)	(feet)	Siope	(MGD)	(ft/s)	(feet)	u/D
C014-C013	C013A-C012A	C013A				0.0010				0.45
C015-C015		C013	C012	12	240.25	0.0013			0.38	0.38
C015-C015 C016 C015 C016 L12 L185-94 D.0.015 D.252 L15.2 D.3.6 D. C017-C016 C017-C016 C017-C016 L12 L20.85 D.0.015 D.250 L151 D.3.6 D. C019-C013A C019 C013A 8 378-40 D.0.116 D.0.43 L156 D.0.10 D. C020-C019 C020 C019 8 Z40.65 D.0.017 D.0.05 L0.55 D.0.03 D.0.50 D.0.50	C014-C013	C014	C013			0.0015				0.36
C017-C016 C017 C016 12 220.85 0.0015 0.250 1.51 0.36 0.00	C015-C014	C015	C014	12	153.36	0.0015	0.252	1.51	0.36	0.36
C019-C013A C019	C016-C015	C016	C015	12	185.94	0.0015	0.252	1.52	0.36	0.36
CO21-CO19	C017-C016	C017	C016	12	220.85	0.0015	0.250	1.51	0.36	0.36
CO22-CO21	C019-C013A	C019	C013A	8	328.40	0.0116	0.043	1.96	0.10	0.15
CO22-CO21	C020-C019	C020	C019	8	252.66	0.0137	0.005	1.05	0.03	0.05
C024-C022	C021-C019	C021	C019	8	240.65	0.0040	0.028	1.19	0.11	0.16
CO24-CO22	C022-C021	C022	C021	8	151.67	0.0039	0.025	1.13	0.10	0.15
CO2F-CO13A CO26 CO13A 12 285.83 CO1011 CO141 CO2F-CO26 CO27 CO26 8 244.16 CO043 CO135 CO29 CO28-CO27 CO28 CO27 CO28 CO27 R 262.35 CO0404 CO121 T.811 CO22 CO29-CO28 CO29 CO28 R 263.41 CO040 CO097 T.69 CO20 CO29-CO28 CO29 CO29 R 257.33 CO035 CO39 T.36 CO15 CO30-CO29 CO29 CO28 R 257.33 CO035 CO39 T.36 CO15 CO30-CO29 T.36 CO31 R T.313 CO.131 CO31 CO31 CO32 CO31 R T.313 CO.131 CO31 CO32 CO31 R T.313 CO.037 CO.042 T.313 CO.037 CO.038 CO.038	C023-C022	C023	C022	8	164.99	0.0089	0.004	0.85	0.03	0.05
CO2F-CO2F	C024-C022	C024	C022	8	227.08	0.0040	0.019	1.05	0.09	0.13
CO28-CO27 CO28 CO27 8 262.35 0.0040 0.121 1.81 0.22 0.0 CO29-CO28 CO29 CO28 8 263.41 0.0040 0.097 1.69 0.20 0.0 C031-C030 CO29 8 257.33 0.0035 0.052 1.36 0.15 0.0 C031-C030 CO31 CO32 CO31 8 143.13 0.0037 0.043 1.31 0.13 0.0 C034-C031 CO32 CO31 8 143.13 0.0037 0.043 1.31 0.13 0.0 C034-C033 CO32 CO33 8 172.49 0.0035 0.041 1.26 0.13 0.0 C035-C034 CO35 CO34 8 166.57 0.0036 0.039 1.26 0.13 0.0 C037-C026 CO35 8 237.82 0.0037 0.031 1.19 0.12 0.0 C038-C027 8 268.21 0.0035	C026-C013A	C026	C013A	12	285.83	0.0011	0.141	1.13	0.29	0.29
CO29-CO28	C027-C026	C027	C026	8	244.16	0.0043	0.135	1.92	0.23	0.35
C030-C029 C031 C030 C029 8 257.33 0.0035 0.052 1.36 0.15 0 C031-C030 C031 C030 8 43.34 0.1324 0.049 4.78 0.06 0 C032-C031 C032 8 143.13 0.037 0.043 1.31 0.13 0 C034-C033 C034 C033 8 172.49 0.0035 0.041 1.26 0.13 0 C035-C034 C033 8 172.49 0.0035 0.041 1.26 0.13 0 C035-C034 C035 08 237.82 0.0037 0.031 1.19 0.12 0 C036-C035 C036 C035 8 237.82 0.0037 0.031 1.19 0.12 0 C037-C026 C037 C026 10 210.25 0.0017 0.006 0.53 0.06 0 C038-C027 8 265.19 0.0036 0.023 1.07 </td <td>C028-C027</td> <td>C028</td> <td>C027</td> <td>8</td> <td>262.35</td> <td>0.0040</td> <td>0.121</td> <td>1.81</td> <td>0.22</td> <td>0.34</td>	C028-C027	C028	C027	8	262.35	0.0040	0.121	1.81	0.22	0.34
C031-C030 C031 C030 8	C029-C028	C029	C028	8	263.41	0.0040	0.097	1.69	0.20	0.30
C032-C031 C032 C031 8 143.13 0.0037 0.043 1.31 0.13 0.03 C034-C033 C033 C032 8 109.37 0.0038 0.042 1.31 0.13 0.03 C034-C033 C034 8 172.49 0.0035 0.041 1.26 0.13 0.0 C035-C035 C036 C035 8 237.82 0.0037 0.031 1.19 0.12 0.00 C037-C026 C037 C026 10 210.25 0.0017 0.006 0.05 0.06 0.0 C038-C027 C038 C027 8 268.21 0.0035 0.013 0.90 0.06 0.0 C039-C028 C039 C028 8 265.19 0.0036 0.023 1.07 0.10 0.0 C041-C031 C041 C031 8 329.44 0.0056 0.007 0.86 0.05 0.0 C042-C041 C042 C041 8	C030-C029	C030	C029	8	257.33	0.0035	0.052	1.36	0.15	0.23
C033-C032 C033 C032 8 109.37 0.0038 0.042 1.31 0.13 0.03 C034-C033 C034 C033 8 172.49 0.0035 0.041 1.26 0.13 0.0 C035-C034 C035 C034 8 166.57 0.0036 0.039 1.26 0.13 0.0 C036-C035 C036 C035 8 237.82 0.0037 0.031 1.19 0.12 0.0 C037-C026 C037 C026 10 210.25 0.0017 0.006 0.53 0.06 0.0 C038-C027 C038 C027 8 268.21 0.0035 0.013 0.90 0.08 0.0 C039-C028 C039 C028 8 265.19 0.0036 0.023 1.07 0.10 0.0 C040-C029 C040 C029 8 271.91 0.0027 0.041 1.16 0.14 0.0 0.0 C042-C041 C041	C031-C030	C031	C030	8	43.34	0.1324	0.049	4.78	0.06	0.09
C034-C033 C034 C035 C034 8 172.49 0.0035 0.041 1.26 0.13 0.0 C035-C034 C035 C034 8 166.57 0.0036 0.039 1.26 0.13 0.0 C036-C035 C035 C035 8 237.82 0.0037 0.031 1.90 0.02 C037-C026 C037 C026 10 210.25 0.0017 0.006 0.53 0.06 0.0 C038-C028 C039 C028 8 265.19 0.0035 0.013 0.90 0.08 0.0 C040-C029 C040 C029 8 271.91 0.0027 0.041 1.16 0.14 0.0 C041-C031 C041 C031 8 329.44 0.0056 0.007 0.86 0.05 0 C042-C041 C042 C041 8 149.57 0.067 0.003 0.73 0.03 0 C043-C047 C043 8 <t< td=""><td>C032-C031</td><td>C032</td><td>C031</td><td>8</td><td>143.13</td><td>0.0037</td><td>0.043</td><td>1.31</td><td>0.13</td><td>0.20</td></t<>	C032-C031	C032	C031	8	143.13	0.0037	0.043	1.31	0.13	0.20
C035-C034 C035 C034 8 166.57 0.0036 0.039 1.26 0.13 0.0 C036-C035 C036 C035 8 237.82 0.0037 0.031 1.19 0.12 0.0 C037-C026 C037 C026 10 210.25 0.0017 0.006 0.53 0.06 0 C038-C027 C038 C027 8 268.21 0.0035 0.013 0.90 0.08 0 C039-C028 C039 C028 8 265.19 0.0036 0.023 1.07 0.10 0 C040-C029 C040 C029 8 271.91 0.0027 0.041 1.16 0.14 0 C041-C031 C041 C031 8 329.44 0.0056 0.007 0.86 0.05 0 C042-C041 C042 C041 8 149.57 0.0067 0.003 0.73 0.03 0.0 C043-C029 C043 C029 8	C033-C032	C033	C032	8	109.37	0.0038	0.042	1.31	0.13	0.20
C036-C035 C036 C037 C026 10 210.25 0.0017 0.006 0.53 0.06 0.03 C037-C026 C037 C026 10 210.25 0.0017 0.006 0.53 0.06 0.0 C038-C027 C038 C027 8 268.21 0.0035 0.013 0.90 0.08 0.0 C039-C028 C039 C028 8 265.19 0.0036 0.023 1.07 0.10 0.0 C040-C029 C040 C029 8 271.91 0.0027 0.041 1.16 0.14 0.14 0.0 0.0 0.04 0.0 0.03 0.73 0.03 0.0 0.04 0.01 0.0	C034-C033	C034	C033	8	172.49	0.0035	0.041	1.26	0.13	0.20
C037-C026 C037 C026 10 210.25 0.0017 0.006 0.53 0.06 0 C038-C027 C038 C027 8 268.21 0.0035 0.013 0.90 0.08 0 C039-C028 C039 C028 8 265.19 0.0036 0.023 1.07 0.10 0 C040-C029 C040 C029 8 271.91 0.0027 0.041 1.16 0.14 0 C041-C031 C041 C031 8 329.44 0.0056 0.007 0.86 0.05 0 C042-C041 C042 C041 8 149.57 0.0067 0.003 0.73 0.03 0.0 C043-C029 C043 C029 8 251.52 0.0084 0.002 0.73 0.03 0.0 C043-C029 C043 C029 8 251.52 0.0084 0.002 0.73 0.03 0.0 C044-C030 C044 C030 8	C035-C034	C035	C034	8	166.57	0.0036	0.039	1.26	0.13	0.19
C038-C027 C038 C027 8 268.21 0.0035 0.013 0.90 0.08 0 C039-C028 C039 C028 8 265.19 0.0036 0.023 1.07 0.10 0 C040-C029 C040 C029 8 271.91 0.0027 0.041 1.16 0.14 0 C041-C031 C041 C031 8 329.44 0.0056 0.007 0.86 0.05 0 C042-C041 C042 C041 8 149.57 0.0067 0.003 0.73 0.03 0 C043-C029 C043 C029 8 251.52 0.0084 0.002 0.73 0.03 0 C045-C035 C045 C035 8 204.04 0.0064 0.005 0.85 0.04 0 C047-C048 C047 C048 8 39.28 0.0214 0.032 2.21 0.08 0 C048-D014 C048 D014 8	C036-C035	C036	C035	8	237.82	0.0037	0.031	1.19	0.12	0.17
C039-C028 C039 C028 8 265.19 0.0036 0.023 1.07 0.10 0 C040-C029 C040 C029 8 271.91 0.0027 0.041 1.16 0.14 0 C041-C031 C041 C031 8 329.44 0.0056 0.007 0.86 0.05 0 C042-C041 C042 C041 8 149.57 0.0067 0.003 0.73 0.03 0.0 C043-C029 C043 C029 8 251.52 0.0084 0.002 0.73 0.03 0 C044-C030 C044 C030 8 211.72 0.0100 0.003 0.86 0.03 0 C045-C035 C045 C035 8 204.04 0.0064 0.005 0.85 0.04 0 C047-C048 C047 C048 308.01 0.0015 0.021 0.77 0.12 0 C048-C047 C048 8 392.8 0.021	C037-C026	C037	C026	10	210.25	0.0017	0.006	0.53	0.06	0.07
C040-C029 C040 C029 8 271.91 0.0027 0.041 1.16 0.14 0 C041-C031 C041 C031 8 329.44 0.0056 0.007 0.86 0.05 0 C042-C041 C041 8 149.57 0.0067 0.003 0.73 0.03 0 C042-C041 C042 C041 8 149.57 0.0067 0.003 0.73 0.03 0 C044-C030 C044 C030 8 251.72 0.0100 0.003 0.86 0.03 0 C045-C035 C045 C035 8 204.04 0.0064 0.005 0.85 0.04 0 C046-C047 C046 C047 8 308.01 0.0015 0.021 0.77 0.12 0 C047-C048 C047 C048 8 39.28 0.0214 0.032 2.21 0.08 0 C049-C045 8 40.09 0.0025 0.004 <td>C038-C027</td> <td>C038</td> <td>C027</td> <td>8</td> <td>268.21</td> <td>0.0035</td> <td>0.013</td> <td>0.90</td> <td>0.08</td> <td>0.11</td>	C038-C027	C038	C027	8	268.21	0.0035	0.013	0.90	0.08	0.11
C041-C031 C041 C031 8 329.44 0.0056 0.007 0.86 0.05 0 C042-C041 C042 C041 8 149.57 0.0067 0.003 0.73 0.03 0 C043-C029 C043 C029 8 251.52 0.0084 0.002 0.73 0.03 0 C044-C030 C044 C030 8 211.72 0.0100 0.003 0.86 0.03 0 C045-C035 C045 C035 8 204.04 0.0064 0.005 0.85 0.04 0 C046-C047 C046 C047 8 308.01 0.0015 0.021 0.77 0.12 0 C047-C048 C047 C048 8 39.28 0.0214 0.032 1.03 0.13 0 C049-C045 C049 C045 8 40.09 0.0055 0.004 0.74 0.04 0 C051-C011 C051 C011 8	C039-C028	C039	C028	8	265.19	0.0036	0.023	1.07	0.10	0.15
CO42-C041 C042 C041 8 149.57 0.0067 0.003 0.73 0.03 0.03 C043-C029 C043 C029 8 251.52 0.0084 0.002 0.73 0.03 0.0 C044-C030 C044 C030 8 211.72 0.0100 0.003 0.86 0.03 0.0 C045-C035 C045 C035 8 204.04 0.0064 0.005 0.85 0.04 0.0 C046-C047 C046 C047 8 308.01 0.0015 0.021 0.77 0.12 0.0 C047-C048 C047 C048 8 39.28 0.0214 0.032 2.21 0.08 0.0 C049-C045 C049 C045 8 40.09 0.0055 0.004 0.74 0.04 0.0 C051-C011 C051 C011 8 156.72 0.0047 0.008 0.85 0.06 0.0 C052-C024 C052 C04	C040-C029	C040	C029	8	271.91	0.0027	0.041	1.16	0.14	0.21
CO43-CO29 CO43 CO29 8 251.52 0.0084 0.002 0.73 0.03 0.0 CO44-CO30 CO44 CO30 8 211.72 0.0100 0.003 0.86 0.03 0.0 CO45-CO35 CO45 CO35 8 204.04 0.0064 0.005 0.85 0.04 0.0 CO46-CO47 CO46 CO47 8 308.01 0.0015 0.021 0.77 0.12 0.0 CO47-C048 CO47 CO48 8 39.28 0.0214 0.032 1.03 0.13 0.0 C048-D014 CO48 B 39.28 0.0024 0.032 1.03 0.13 0.0 C049-C045 CO49 CO45 8 40.09 0.0055 0.004 0.74 0.04 0.0 C051-C011 C051 C011 8 156.72 0.0047 0.008 0.85 0.06 0.0 C052-C024 C052 C054 8 <t< td=""><td>C041-C031</td><td>C041</td><td>C031</td><td>8</td><td>329.44</td><td>0.0056</td><td>0.007</td><td>0.86</td><td>0.05</td><td>0.07</td></t<>	C041-C031	C041	C031	8	329.44	0.0056	0.007	0.86	0.05	0.07
CO44-C030 C044 C030 8 211.72 0.0100 0.003 0.86 0.03 0 C045-C035 C045 C035 8 204.04 0.0064 0.005 0.85 0.04 0 C047-C047 C046 C047 8 308.01 0.0015 0.021 0.77 0.12 0 C047-C048 C047 C048 8 39.28 0.0214 0.032 2.21 0.08 0 C049-C045 C049 C045 8 40.09 0.0055 0.004 0.74 0.04 0 C051-C011 C051 C011 8 156.72 0.0047 0.008 0.85 0.06 0 C052-C024 C052 C024 8 241.48 0.0039 0.011 0.88 0.07 0 C053-C052 C053 C052 8 141.95 0.0039 0.011 0.88 0.07 0 C054-C052 C054 C052 8	C042-C041	C042	C041	8	149.57	0.0067	0.003	0.73	0.03	0.05
CO45-C035 C045 C035 8 204.04 0.0064 0.005 0.85 0.04 0 C046-C047 C046 C047 8 308.01 0.0015 0.021 0.77 0.12 0 C047-C048 C047 C048 8 39.28 0.0214 0.032 2.21 0.08 0 C048-D014 C048 D014 8 348.69 0.0024 0.032 1.03 0.13 0.1 C049-C045 C049 C045 8 40.09 0.0055 0.004 0.74 0.04 0.0 C051-C011 C051 C011 8 156.72 0.0047 0.008 0.85 0.06 0.0 C052-C024 C052 C024 8 241.48 0.0039 0.011 0.88 0.07 0.0 C053-C024 C052 8 295.90 0.0072 0.006 0.91 0.04 0.0 C054-C052 C054 8 141.95 0	C043-C029	C043	C029	8	251.52	0.0084	0.002	0.73	0.03	0.04
CO46-C047 C046 C047 8 308.01 0.0015 0.021 0.77 0.12 0 C047-C048 C047 C048 8 39.28 0.0214 0.032 2.21 0.08 0 C048-D014 C048 D014 8 348.69 0.0024 0.032 1.03 0.13 0 C049-C045 C049 C045 8 40.09 0.0055 0.004 0.74 0.04 0 C051-C011 C051 C011 8 156.72 0.0047 0.008 0.85 0.06 0 C052-C024 C052 C024 8 241.48 0.0039 0.011 0.88 0.07 0 C053-C052 C053 C052 8 295.90 0.0072 0.006 0.91 0.04 0 C054-C052 C054 C052 8 141.95 0.0039 0.002 0.54 0.03 0 C055-C024 C055 C024 8	C044-C030	C044	C030	8	211.72	0.0100	0.003	0.86	0.03	0.05
C047-C048 C047 C048 8 39.28 0.0214 0.032 2.21 0.08 0.00 C048-D014 C048 D014 8 348.69 0.0024 0.032 1.03 0.13 0.0 C049-C045 C049 C045 8 40.09 0.0055 0.004 0.74 0.04 0.0 C051-C011 C051 C011 8 156.72 0.0047 0.008 0.85 0.06 0.0 C052-C024 C052 C024 8 241.48 0.0039 0.011 0.88 0.07 0.0 C053-C052 C053 C052 8 295.90 0.0072 0.006 0.91 0.04 0.0 C054-C052 C053 C052 8 141.95 0.0039 0.002 0.54 0.03 0.0 C055-C024 C055 C024 8 139.43 0.0040 0.06 0.07 0.37 0.09 0.0 C056-C046 C056	C045-C035	C045	C035	8	204.04	0.0064	0.005	0.85	0.04	0.07
CO48-D014 C048 D014 8 348.69 0.0024 0.032 1.03 0.13 0.0 C049-C045 C049 C045 8 40.09 0.0055 0.004 0.74 0.04 0.0 C051-C011 C051 C011 8 156.72 0.0047 0.008 0.85 0.06 0.0 C052-C024 C052 C024 8 241.48 0.0039 0.011 0.88 0.07 0.0 C053-C052 C053 C052 8 295.90 0.0072 0.006 0.91 0.04 0.0 C054-C052 C054 C052 8 141.95 0.0039 0.002 0.54 0.03 0.0 C055-C024 C055 C024 8 139.43 0.0040 0.004 0.67 0.04 0.0 C056-C046 C056 C046 8 184.19 0.0005 0.007 0.37 0.09 0.0 C057-1051 C057 1051	C046-C047	C046	C047	8	308.01	0.0015	0.021	0.77	0.12	0.18
CO48-D014 CO48 D014 8 348.69 0.0024 0.032 1.03 0.13 0.0 CO49-C045 C049 C045 8 40.09 0.0055 0.004 0.74 0.04 0.0 C051-C011 C051 C011 8 156.72 0.0047 0.008 0.85 0.06 0.0 C052-C024 C052 C024 8 241.48 0.0039 0.011 0.88 0.07 0.0 C053-C052 C053 C052 8 295.90 0.0072 0.006 0.91 0.04 0.0 C054-C052 C054 C052 8 141.95 0.0039 0.002 0.54 0.03 0.0 C055-C024 C055 C024 8 139.43 0.0040 0.004 0.67 0.04 0.0 C056-C046 C056 C046 8 184.19 0.0005 0.007 0.37 0.09 0.0 C057-I051 C057 I051	C047-C048	C047	C048	8				2.21	0.08	0.11
CO51-CO11 CO51 CO11 8 156.72 0.0047 0.008 0.85 0.06 0.0 CO52-CO24 CO52 CO24 8 241.48 0.0039 0.011 0.88 0.07 0.0 CO53-C052 CO53 CO52 8 295.90 0.0072 0.006 0.91 0.04 0.0 CO54-C052 CO54 CO52 8 141.95 0.0039 0.002 0.54 0.03 0.0 CO55-C024 CO55 CO24 8 139.43 0.0040 0.004 0.67 0.04 0.0 CO56-C046 C056 CO46 8 184.19 0.0005 0.007 0.37 0.09 0.0 C057-I051 C057 I051 12 314.01 0.0023 0.002 0.44 0.03 0.0 C805-C057 C058 C057 12 8.29 0.0084 0.000 0.00 0.00 0.00 0.00 0.00 0.00 0.00	C048-D014	C048	D014	8	348.69	0.0024	0.032	1.03	0.13	0.19
C052-C024 C052 C024 8 241.48 0.0039 0.011 0.88 0.07 0.0 C053-C052 C053 C052 8 295.90 0.0072 0.006 0.91 0.04 0.0 C054-C052 C054 C052 8 141.95 0.0039 0.002 0.54 0.03 0.0 C055-C024 C055 C024 8 139.43 0.0040 0.004 0.67 0.04 0.0 C056-C046 C056 C046 8 184.19 0.0005 0.007 0.37 0.09 0.0 C057-I051 C057 I051 12 314.01 0.0023 0.002 0.44 0.03 0.0 C058-C057 C058 C057 12 8.29 0.0084 0.000 0.00 0.00 0.00 C800-C017 C800 C017 12 113.47 0.0015 0.234 1.48 0.35 0.0 0.0 0.00 0.00 0.00	C049-C045	C049	C045	8	40.09	0.0055	0.004	0.74	0.04	0.06
CO52-CO24 CO52 CO24 8 241.48 0.0039 0.011 0.88 0.07 0.0 CO53-CO52 CO53 CO52 8 295.90 0.0072 0.006 0.91 0.04 0.0 CO54-CO52 CO54 CO55 CO24 8 141.95 0.0039 0.002 0.54 0.03 0.0 CO55-CO24 CO55 CO24 8 139.43 0.0040 0.004 0.67 0.04 0.0 CO56-C046 CO56 CO46 8 184.19 0.0005 0.007 0.37 0.09 0.0 CO57-I051 CO57 I051 12 314.01 0.0023 0.002 0.44 0.03 0.0 CO58-C057 CO58 CO57 12 8.29 0.0084 0.000 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 0.00	C051-C011	C051	C011	8	156.72	0.0047	0.008	0.85	0.06	0.08
CO53-CO52 CO53 CO52 8 295.90 0.0072 0.006 0.91 0.04 0.0 CO54-CO52 CO54 CO52 8 141.95 0.0039 0.002 0.54 0.03 0. CO55-CO24 CO55 CO24 8 139.43 0.0040 0.004 0.67 0.04 0. CO56-C046 CO56 CO46 8 184.19 0.0005 0.007 0.37 0.09 0. CO57-I051 CO57 I051 12 314.01 0.0023 0.002 0.44 0.03 0. CO58-C057 CO58 CO57 12 8.29 0.0084 0.000 0.00 0.00 0.00 C800-C017 C800 C017 12 113.47 0.0015 0.234 1.48 0.35 0.0 C806-C037 R 324.10 0.0013 0.005 0.47 0.06 0.0 C809-C038 C809 C038 R 265.63										0.10
C055-C024 C055 C024 8 139.43 0.0040 0.004 0.67 0.04 0.04 C056-C046 C056 C046 8 184.19 0.0005 0.007 0.37 0.09 0.0 C057-I051 C057 I051 12 314.01 0.0023 0.002 0.44 0.03 0.0 C058-C057 C058 C057 12 8.29 0.0084 0.000 0.00 0.00 0.00 C800-C017 C800 C017 12 113.47 0.0015 0.234 1.48 0.35 0.0 C806-C037 C806 C037 8 324.10 0.0013 0.005 0.47 0.06 0.0 C809-C038 C809 C038 8 265.63 0.0037 0.010 0.85 0.07 0.0 C812-C039 C812 C039 8 267.35 0.0036 0.020 1.04 0.09 0.0 C813-C040 C813 C040	C053-C052	C053		8		0.0072	0.006	0.91	0.04	0.07
C055-C024 C055 C024 8 139.43 0.0040 0.004 0.67 0.04 0.04 C056-C046 C056 C046 8 184.19 0.0005 0.007 0.37 0.09 0.0 C057-I051 C057 I051 12 314.01 0.0023 0.002 0.44 0.03 0.0 C058-C057 C058 C057 12 8.29 0.0084 0.000 0.00 0.00 0.00 C800-C017 C800 C017 12 113.47 0.0015 0.234 1.48 0.35 0.0 C806-C037 C806 C037 8 324.10 0.0013 0.005 0.47 0.06 0.0 C809-C038 C809 C038 8 265.63 0.0037 0.010 0.85 0.07 0.0 C812-C039 C812 C039 8 267.35 0.0036 0.020 1.04 0.09 0.0 C813-C040 C813 C040	C054-C052	C054	C052	8	141.95	0.0039	0.002	0.54	0.03	0.05
C056-C046 C056 C046 8 184.19 0.0005 0.007 0.37 0.09 0.00 C057-I051 C057 I051 12 314.01 0.0023 0.002 0.44 0.03 0.0 C058-C057 C058 C057 12 8.29 0.0084 0.000 0.00 0.00 0.00 C800-C017 C800 C017 12 113.47 0.0015 0.234 1.48 0.35 0.0 C806-C037 C806 C037 8 324.10 0.0013 0.005 0.47 0.06 0.0 C809-C038 C809 C038 8 265.63 0.0037 0.010 0.85 0.07 0.0 C812-C039 C812 C039 8 267.35 0.0036 0.020 1.04 0.09 0.0 C813-C040 C813 C040 8 263.35 0.0029 0.038 1.15 0.14 0.0 D001-C006 D001 C006	C055-C024	C055		8	139.43	0.0040	0.004	0.67	0.04	0.07
C057-I051 C057 I051 12 314.01 0.0023 0.002 0.44 0.03 0.0 C058-C057 C058 C057 12 8.29 0.0084 0.000 0.00 0.00 0.00 C800-C017 C800 C017 12 113.47 0.0015 0.234 1.48 0.35 0.0 C806-C037 C806 C037 8 324.10 0.0013 0.005 0.47 0.06 0.0 C809-C038 C809 C038 8 265.63 0.0037 0.010 0.85 0.07 0.0 C812-C039 C812 C039 8 267.35 0.0036 0.020 1.04 0.09 0.0 C813-C040 C813 C040 8 263.35 0.0029 0.038 1.15 0.14 0.0 D001-C006 D001 C006 12 304.59 0.0040 0.100 1.65 0.18 0.0 D002-D090 D002 D090	C056-C046					0.0005		0.37	0.09	0.14
C058-C057 C058 C057 12 8.29 0.0084 0.000 0.00 0.00 0.00 C800-C017 C800 C017 12 113.47 0.0015 0.234 1.48 0.35 0.0 C806-C037 C806 C037 8 324.10 0.0013 0.005 0.47 0.06 0.0 C809-C038 C809 C038 8 265.63 0.0037 0.010 0.85 0.07 0.0 C812-C039 C812 C039 8 267.35 0.0036 0.020 1.04 0.09 0.0 C813-C040 C813 C040 8 263.35 0.0029 0.038 1.15 0.14 0.0 D001-C006 D001 C006 12 304.59 0.0040 0.100 1.65 0.18 0.0 D002-D090 D002 D090 10 83.50 0.0020 0.000 0.00 0.00 0.00 0.00 0.00 0.00 0.00					314.01	0.0023	0.002	0.44	0.03	0.03
C800-C017 C800 C017 12 113.47 0.0015 0.234 1.48 0.35 0.0 C806-C037 C806 C037 8 324.10 0.0013 0.005 0.47 0.06 0.0 C809-C038 C809 C038 8 265.63 0.0037 0.010 0.85 0.07 0.0 C812-C039 C812 C039 8 267.35 0.0036 0.020 1.04 0.09 0.0 C813-C040 C813 C040 8 263.35 0.0029 0.038 1.15 0.14 0.0 D001-C006 D001 C006 12 304.59 0.0040 0.100 1.65 0.18 0.0 D002-D090 D002 D090 10 83.50 0.0020 0.000 0.00 0.00 0.00 D003-D002 D003 D002 10 254.66 0.0020 0.000 0.00 0.00 0.00 D004-D091 D004 D091								0.00	0.00	0.00
C806-C037 C806 C037 8 324.10 0.0013 0.005 0.47 0.06 0.0 C809-C038 C809 C038 8 265.63 0.0037 0.010 0.85 0.07 0.0 C812-C039 C812 C039 8 267.35 0.0036 0.020 1.04 0.09 0.0 C813-C040 C813 C040 8 263.35 0.0029 0.038 1.15 0.14 0.0 D001-C006 D001 C006 12 304.59 0.0040 0.100 1.65 0.18 0.0 D002-D090 D002 D090 10 83.50 0.0020 0.000 0.00 0.00 0.00 D003-D002 D003 D002 10 254.66 0.0020 0.000 0.00 0.00 0.00 D004-D091 D004 D091 10 330.67 0.0021 0.141 1.48 0.26 0.0 D005-D004 D005 D004										0.35
C809-C038 C809 C038 8 265.63 0.0037 0.010 0.85 0.07 0.02 C812-C039 C812 C039 8 267.35 0.0036 0.020 1.04 0.09 0.0 C813-C040 C813 C040 8 263.35 0.0029 0.038 1.15 0.14 0.0 D001-C006 D001 C006 12 304.59 0.0040 0.100 1.65 0.18 0.0 D002-D090 D002 D090 10 83.50 0.0020 0.000 0.00 0.00 0.0 D003-D002 D003 D002 10 254.66 0.0020 0.000 0.00 0.00 0.0 D004-D091 D004 D091 10 260.32 0.0022 0.141 1.49 0.26 0.0 D005-D004 D005 D004 10 330.67 0.0021 0.141 1.48 0.26 0.0										0.09
C812-C039 C812 C039 8 267.35 0.0036 0.020 1.04 0.09 0.00 C813-C040 C813 C040 8 263.35 0.0029 0.038 1.15 0.14 0.0 D001-C006 D001 C006 12 304.59 0.0040 0.100 1.65 0.18 0.0 D002-D090 D002 D090 10 83.50 0.0020 0.000 0.00 0.00 0.00 D003-D002 D003 D002 10 254.66 0.0020 0.000 0.00 0.00 0.00 D004-D091 D004 D091 10 260.32 0.0022 0.141 1.49 0.26 0.0 D005-D004 D005 D004 10 330.67 0.0021 0.141 1.48 0.26 0.0										0.10
C813-C040 C813 C040 8 263.35 0.0029 0.038 1.15 0.14 0. D001-C006 D001 C006 12 304.59 0.0040 0.100 1.65 0.18 0. D002-D090 D002 D090 10 83.50 0.0020 0.000 0.00 0.00 0. D003-D002 D003 D002 10 254.66 0.0020 0.000 0.00 0.00 0. D004-D091 D004 D091 10 260.32 0.0022 0.141 1.49 0.26 0. D005-D004 D005 D004 10 330.67 0.0021 0.141 1.48 0.26 0.										0.14
D001-C006 D001 C006 12 304.59 0.0040 0.100 1.65 0.18 0. D002-D090 D002 D090 10 83.50 0.0020 0.000 0.00 0.00 0.00 D003-D002 D003 D002 10 254.66 0.0020 0.000 0.00 0.00 0.00 D004-D091 D004 D091 10 260.32 0.0022 0.141 1.49 0.26 0.00 D005-D004 D005 D004 10 330.67 0.0021 0.141 1.48 0.26 0.00										0.20
D002-D090 D002 D090 10 83.50 0.0020 0.000 0.00 0.00 0.00 D003-D002 D003 D002 10 254.66 0.0020 0.000 0.00 0.00 0.00 D004-D091 D004 D091 10 260.32 0.0022 0.141 1.49 0.26 0.0 D005-D004 D005 D004 10 330.67 0.0021 0.141 1.48 0.26 0.0										0.18
D003-D002 D003 D002 10 254.66 0.0020 0.000 0.00 0.00 0.00 D004-D091 D004 D091 10 260.32 0.0022 0.141 1.49 0.26 0.0 D005-D004 D005 D004 10 330.67 0.0021 0.141 1.48 0.26 0.0	-									0.00
D004-D091 D004 D091 10 260.32 0.0022 0.141 1.49 0.26 0.00 D005-D004 D005 D004 10 330.67 0.0021 0.141 1.48 0.26 0.00										0.00
D005-D004 D005 D004 10 330.67 0.0021 0.141 1.48 0.26 0.0021										0.00
			1							0.31
10000 0000					+					0.32
D007-D006 D007 D006 10 329.85 0.0020 0.015 0.74 0.09 0.										0.32

Model Results - Future Peak Dry Weather Flow (PDWF) Scenario

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Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
D008-D007	D008	D007	10	141.22	0.0019	0.013	0.71	0.08	0.10
D009-D008	D009	D008	10	183.07	0.0021	0.002	0.43	0.04	0.04
D010-D009	D010	D009	10	332.49	0.0020	0.002	0.43	0.04	0.04
D011-D001	D011	D001	10	291.10	0.0025	0.009	0.69	0.07	0.08
D012-D011	D012	D011	10	286.24	0.0025	0.000	0.00	0.00	0.00
D012-D098	D012	D098	10	293.36	0.0036	0.091	1.57	0.18	0.22
D013-D012	D013	D012	10	248.54	0.0026	0.062	1.25	0.17	0.20
D014-D013	D014	D013	10	247.66	0.0025	0.061	1.22	0.17	0.20
D015-D014	D015	D014	10	287.62	0.0025	0.025	0.94	0.11	0.13
D016-D015	D016	D015	10	291.68	0.0025	0.022	0.91	0.10	0.12
D018-D031	D018	D031	15	404.98	0.0011	0.686	1.76	0.62	0.49
D020-D018	D020	D018	15	395.03	0.0020	0.680	2.18	0.52	0.42
D021-D020	D021	D020	15	434.75	0.0018	0.678	2.11	0.53	0.43
D022A-D022	D022A	D022	12	297.71	0.0067	0.574	3.26	0.38	0.38
D022-D021	D022	D021	15	388.37	0.0021	0.670	2.22	0.51	0.41
D023-D016	D023	D016	8	107.86	0.0045	0.007	0.80	0.05	0.08
D024-D023	D024	D023	10	325.46	0.0020	0.007	0.58	0.06	0.07
D025-D022	D025	D022	8	24.54	0.1663	0.094	6.29	0.08	0.12
D025-D023	D025	D023	8	12.47	0.0024	0.000	0.00	0.00	0.00
D026-D025	D026	D025	8	255.56	0.0026	0.094	1.45	0.22	0.33
D027A-D026	D027A	D026	8	79.62	0.0069	0.091	2.04	0.17	0.25
D027-D027A	D027	D027A	8	169.81	0.0032	0.091	1.54	0.21	0.31
D028-D027	D028	D027	8	218.28	0.0041	0.078	1.62	0.18	0.27
D029-D028	D029	D028	8	153.07	0.0018	0.069	1.17	0.21	0.31
D030-D029	D030	D029	8	273.60	0.0024	0.063	1.26	0.18	0.27
D031-C009	D031	C009	15	118.99	0.0075	1.280	4.17	0.51	0.41
D032-D031	D032	D031	15	325.61	0.0020	0.593	2.10	0.48	0.39
D033-D032	D033	D032	12	248.97	0.0020	0.397	1.90	0.43	0.43
D034-D033	D034	D033	12	340.84	0.0020	0.397	1.90	0.43	0.43
D035-D034	D035	D034	12	331.40	0.0021	0.397	1.92	0.43	0.43
D036-D035	D036	D035	12	478.18	0.0020	0.390	1.89	0.43	0.43
D037-D036	D037	D036	12	427.81	0.0020	0.388	1.89	0.42	0.42
D038-D032	D038	D032	8	150.39	0.0091	0.054	1.92	0.12	0.18
D039-D038	D039	D038	8	223.98	0.0040	0.047	1.39	0.14	0.21
D040-D039	D040	D039	8	217.89	0.0017	0.037	0.95	0.15	0.23
D041-D040	D041	D040	8	217.47	0.0032	0.031	1.13	0.12	0.18
D042-D041	D042	D041	8	140.39	0.0034	0.027	1.11	0.11	0.16
D043-D042	D043	D042	8	206.59	0.0039	0.027	1.16	0.11	0.16
D044-D043	D044	D043	8	24.37	0.0189	0.015	1.69	0.05	0.08
D045-D038	D045	D038	6	342.74	0.0199	0.006	1.38	0.04	0.08
D046-D006	D046	D006	8	101.71	0.0286	0.126	3.70	0.14	0.21
D047-D046	D047	D046	8	59.27	0.0034	0.126	1.72	0.24	0.36
D048-D047	D048	D047	8	274.19	0.0032	0.096	1.56	0.21	0.32
D049-D048	D049	D048	8	59.50	0.0032	0.089	1.54	0.20	0.30
D050-D049	D050	D049	8	290.24	0.0032	0.078	1.48	0.19	0.28
D051-D050	D051	D050	8	37.51	0.0032	0.056	1.35	0.16	0.24
D052-D051	D052	D051	8	166.67	0.0031	0.034	1.15	0.13	0.19
D053-D052	D053	D052	8	195.64	0.0041	0.033	1.25	0.12	0.17
D054-D053	D054	D053	8	346.91	0.0032	0.011	0.84	0.07	0.11
D055-D054	D055	D054	8	349.45	0.0033	0.007	0.73	0.06	0.09
D056-D055	D056	D055	8	353.38	0.0031	0.004	0.59		0.07
D057-D050	D057	D050	8	252.07	0.0024	0.020	0.90	0.10	0.16
D058-D057	D058	D057	8	263.26	0.0024	0.018	0.86	0.10	0.15
D059-D058	D059	D058	8	263.11	0.0024	0.013	0.79	0.08	0.13
D060-D059	D060	D059	8	263.54	0.0024	0.009	0.70	0.07	0.10
D061-D060	D061	D060	8	309.54	0.0032	0.003	0.57	0.04	0.06
P001 D000	2001	5000		309.34	0.0032	0.003	0.57	0.04	0.00

Model Results - Future Peak Dry Weather Flow (PDWF) Scenario

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Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
D062-D047	D062	D047	8	239.89	0.0033	0.027	1.10	0.11	0.17
D063-D062	D063	D062	8	259.25	0.0031	0.011	0.83	0.07	0.11
D064-D049	D064	D049	8	177.14	0.0031	0.012	0.84	0.07	0.11
D065-D064	D065	D064	8	198.08	0.0032	0.007	0.74	0.06	0.09
D067-D051	D067	D051	8	251.85	0.0031	0.022	1.02	0.10	0.15
D068-D067	D068	D067	8	255.94	0.0032	0.022	1.02	0.10	0.15
D069-D070	D069	D070	8	269.63	0.0020	0.013	0.73	0.09	0.13
D070-D071	D070	D071	8	254.91	0.0020	0.017	0.80	0.10	0.15
D071-D072	D071	D072	8	257.29	0.0020	0.019	0.84	0.11	0.16
D072-D073	D072	D073	8	209.73	0.0020	0.023	0.88	0.12	0.17
D073-D074	D073	D074	8	264.21	0.0020	0.036	1.00	0.15	0.22
D074-D030	D074	D030	8	81.80	0.0006	0.051	0.72	0.23	0.35
D075-D074	D075	D074	8	228.15	0.0024	0.011	0.75	0.08	0.12
D081-D073	D073	D073	8	184.78	0.0024	0.011	0.73	0.08	0.12
D082-D081	D082	D081	8	255.40	0.0020	0.011	0.72	0.08	0.13
D082-D081	D082	D081	8	256.66	0.0020	0.011	0.72	0.08	0.12
D083-D082	D083	D082	8	256.91	0.0026	0.003	0.03	0.05	0.08
D084-D083	D084	D083	8	250.72	0.0034	0.003	0.73	0.03	0.08
D085-D084	D085	D008	8	246.07	0.0024	0.003	0.49	0.04	0.00
D086-D008 D086-D008A	D080	D008	8	185.17	0.0040	0.003	0.80	0.00	0.10
	D008A	D008	8	305.42	0.0231	0.001	0.87	0.02	
D087-D086 D090-D001	D090	D000	8	17.57	0.0040	0.007	1.37	0.03	0.08
	D090 D091								
D091-D003 D091-D032	D091	D003 D032	10 10	69.11 8.94	0.0007 0.0022	0.000 0.141	0.00 1.51	0.00 0.26	0.00
	1	D032			0.0022		0.52		
D092-D074	D092		8	334.36		0.003		0.04	0.07
D093-D059	D093	D059	8	158.00	0.0032	0.003	0.55	0.04	0.06
D094-D058	D094	D058 D057	8	158.90 159.26	0.0032	0.003	0.55 0.55	0.04	0.06
D095-D057	D095	+			0.0032	0.003			0.06
D096-D071	D096	D071	8	158.64	0.0183	0.003	0.98	0.02	0.04
D097-D070	D097	D070	8 10	155.79	0.0115	0.003	0.84	0.03	0.04
D098-D090 E001-D010	D098 E001	D090 D010	10	301.60 316.10	0.0022 0.0021	0.091	0.00	0.21	0.25
					0.0021				
E001-E003	E001	E003	10	10.42		0.039	4.35	0.05	0.06
E002-E001 E003-D037	E002	E001	8	39.33	0.0036	0.015	0.94	0.08	0.12
-	E003	D037	12	409.94	0.0021	0.379	1.90	0.42	0.42
E005A-E003 E005-E005A	E005A E005	E003 E005A	12 8	507.10 17.20	0.0041 0.0279	0.330 0.257	2.34 4.51	0.32 0.20	0.32
E005-E005A	E006	E005A	8	286.15	0.0279	0.257	1.82	0.40	0.59
E000-E003	E007	E006	8	286.09	0.0024	0.233	1.82	0.40	
E007-E000 E008-E007	E008	E007	8	283.56	0.0024	0.240	1.70		
	E008	E007	8	17.82	0.0021		2.25	0.40	
E009-E008 E010-E009	E010	E009	8	168.63	0.0067	0.135 0.135	1.39	0.21	0.31
E010-E009	E011	E010	8	15.83	0.0018	0.133	1.00	0.10	
E011-E010	E012	E011	8	317.97	0.0030	0.022	0.93	0.10	0.15
E012-E011 E013-E012	E012	E011	8	309.59	0.0024	0.022	0.93	0.08	
	E013	E012	8	202.26	0.0032	0.015	1.19	0.08	0.12
E014-E013 E015-E005A	E014	E005A	8	305.23	0.0193	0.003	1.19	0.03	0.03
		+							
E016-E015	E016	E015	8	306.48	0.0025	0.061	1.26	0.18	0.27
E017-E016	E017	E016	8	241.83	0.0022	0.052	1.15 0.77	0.17	0.25
E018-E017	E018	E017	8	192.34	0.0024	0.012		0.08	
E019-E018	E019	E018	8	271.24	0.0024	0.010	0.74	0.08	
E020-E019	E020	E019	8	269.46	0.0024	0.009	0.71	0.07	0.11
E021-E020	E021	E020	8	258.84	0.0029	0.007	0.71	0.06	
E022-E021	E022	E021	8	309.40	0.0024	0.003	0.49	0.04	
E023-E021	E023	E021	8	298.27	0.0024	0.003	0.51	0.04	
E024-E023	E024	E023	8	175.78	0.0024	0.001	0.38	0.03	0.04

Model Results - Future Peak Dry Weather Flow (PDWF) Scenario

Dine ID	From	То	Diameter	Length		Flow	Velocity	Water Depth	4/0
Pipe ID	ID	ID	(inches)	(feet)	Slope	(MGD)	(ft/s)	(feet)	d/D
E026-D060	E026	D060	8	263.25	0.0024	0.004	0.56	0.05	0.07
E027-E026	E027	E026	8	255.02	0.0024	0.003	0.50	0.04	0.06
E028-E027	E028	E027	8	248.27	0.0024	0.001	0.41	0.03	0.04
E029-D069	E029	D069	8	273.09	0.0023	0.011	0.73	0.08	0.11
E030-E029	E030	E029	8	265.12	0.0028	0.009	0.74	0.07	0.10
E031-E017	E031	E017	8	181.74	0.0037	0.013	0.92	0.08	0.11
E032-E031	E032	E031	8	68.05	0.0035	0.012	0.87	0.07	0.11
E033-E032	E033	E032	8	98.89	0.0023	0.001	0.38	0.03	0.04
E034-E032	E034	E032	8	354.07	0.0024	0.010	0.73	0.08	0.11
E035-E034	E035	E034	8	345.39	0.0024	0.008	0.68	0.06	0.10
E036-E035	E036	E035	8	202.77	0.0024	0.003	0.51	0.04	0.06
E037-E017	E037	E017	8	227.30	0.0023	0.026	0.96	0.12	0.18
E038-E037	E038	E037	8	299.86	0.0024	0.014	0.81	0.09	0.13
E039-E038	E039	E038	8	299.65	0.0024	0.011	0.75	0.08	0.12
E040-E039	E040	E039	8	299.48	0.0021	0.008	0.64	0.07	0.10
E041-E040	E041	E040	8	303.30	0.0027	0.004	0.58	0.05	0.07
E042-E041	E042	E041	8	139.42	0.0025	0.001	0.38	0.03	0.04
E043-E037	E043	E037	8	230.96	0.0076	0.008	1.03	0.05	0.08
E044-E043	E044	E043	8	349.56	0.0024	0.004	0.55	0.05	0.07
E045-E044	E045	E044	8	203.86	0.0024	0.001	0.34	0.02	0.03
E046-E016	E046	E016	8	347.94	0.0024	0.007	0.65	0.06	0.09
E047-E046	E047	E046	8	111.30	0.0023	0.003	0.52	0.04	0.07
E048-E015	E048	E015	8	343.93	0.0102	0.007	1.08	0.04	0.07
E049-E048	E049	E048	8	105.88	0.0025	0.003	0.52	0.04	0.06
E050-E002	E050	E002	8	350.45	0.0034	0.015	0.93	0.08	0.12
E051-E050	E051	E050	8	151.23	0.0040	0.011	0.90	0.07	0.10
E052-E008	E052	E008	8	168.78	0.0010	0.106	1.06	0.30	0.46
E054-E810	E054	E810	8	258.33	0.0020	0.029	0.94	0.13	0.20
E055-E054	E055	E054	8	363.76	0.0024	0.013	0.79	0.08	0.13
E056-E055	E056	E055	8	359.81	0.0024	0.010	0.74	0.07	0.11
E057-E056	E057	E056	8	363.34	0.0024	0.006	0.62	0.06	0.09
E058-E054	E058	E054	8	268.53	0.0020	0.014	0.76	0.09	0.14
E059-E058	E059	E058	8	360.76	0.0020	0.011	0.70	0.08	0.12
E060-E059	E060	E059	8	360.38	0.0020	0.009	0.65	0.07	0.11
E061-E060	E061	E060	8	364.40	0.0020	0.004	0.53	0.05	0.08
E801-E030	E801	E030	8	267.27	0.0020	0.008	0.63	0.07	0.10
E806-E052	E806	E052	8	24.49	0.0010	0.074	0.95	0.25	0.38
E807-E806	E807	E806	8	187.08	0.0008	0.074	0.88	0.27	0.40
E808A-E807	E808A	E807	8	358.79	0.0011	0.074	0.98	0.25	0.37
E808-E808A	E808	E808A	8	131.23	0.0010	0.074	0.97	0.25	0.37
E809-E808	E809	E808	8	255.48	0.0011	0.060	0.94	0.22	0.33
E810-E809	E810	E809	8	261.87	0.0011	0.033	0.78		0.24
E811-E810	E811	E810	8	348.96	0.0024	0.004	0.55	0.05	0.07
E812-E811	E812	E811	8	255.53	0.0024	0.002	0.46		0.06
E833-E058	E833	E058	8	119.97	0.0021	0.001	0.35	0.03	0.04
F002-F001	F002	F001	21	8.05	0.2473	0.020	3.89	0.03	0.02
F003-F002	F003	F002	15	349.22	0.0031	0.020	0.89	0.08	0.07
F004-F003	F004	F003	15	357.41	0.0047	0.005	0.69	0.04	0.03
F005-F004	F005	F004	15	351.22	0.0047	0.005	0.69	0.04	0.03
F006-F800	F006	F800	8	418.39	0.0050	0.022	1.19	0.09	0.14
F007-F006	F007	F006	8	83.80	0.0075	0.022	1.38	0.08	0.12
F008-F007	F008	F007	8	335.84	0.0052	0.012	1.00	0.07	0.10
F009-F008	F009	F008	8	328.78	0.0015	0.005	0.50	0.06	0.09
F011-F001	F011	F001	8	46.69	0.0291	0.012	1.82	0.04	0.07
G001-G001A	G001	G001A	8	216.66	0.0027	0.032	1.08	0.13	0.19
G002-G001	G002	G001	8	191.60	0.0020	0.011	0.70	0.08	0.12

Model Results - Future Peak Dry Weather Flow (PDWF) Scenario

			el Results - Futu		reatner Fiol				
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
G003-G002	G003	G002	8	164.47	0.0020	0.008	0.64	0.07	0.11
G004-G003	G004	G003	8	281.87	0.0020	0.005	0.55	0.05	0.08
G005-G004	G005	G004	8	298.34	0.0020	0.005	0.55	0.05	0.08
G006-G005	G006	G005	8	169.64	0.0020	0.001	0.38	0.03	0.05
G007-G012	G007	G012	8	134.80	0.0040	0.001	0.46	0.02	0.04
G008-G001	G008	G001	8	106.31	0.0029	0.021	0.97	0.10	0.15
G009-G008	G009	G008	8	321.87	0.0023	0.017	0.84	0.10	0.15
G010-G009	G010	G009	8	245.00	0.0020	0.015	0.78	0.09	0.14
G011-G010	G011	G010	8	261.41	0.0020	0.012	0.71	0.08	0.13
G012-G011	G012	G011	8	88.58	0.0019	0.010	0.66	0.08	0.11
G013-G012	G013	G012	8	327.73	0.0020	0.008	0.65	0.07	0.11
G014-G013	G014	G013	8	328.54	0.0020	0.005	0.56	0.06	0.08
G015-G009	G015	G009	8	196.50	0.0039	0.002	0.54	0.03	0.05
G016-G008	G015	G003	8	33.09	0.0033	0.002	0.72	0.02	0.02
G801-G014	G801	G014	8	121.87	0.0021	0.001	0.72	0.03	0.02
H010-H002	H010	H002	12	11.95	0.0021	0.395	8.09	0.03	0.05
H011-H010	H011	H010	10	298.95	0.0020	0.178	1.54	0.30	0.15
H013-H011	H013	H011	10	285.32	0.0020	0.175	1.51	0.30	0.36
H015-H013	H015	H013	10	288.22	0.0019	0.173	1.40	0.30	0.38
H016-H015	H016	H015	10	342.70	0.0018	0.172	1.40	0.32	0.36
	H017	H016	10	189.85	0.0018	0.170	1.51	0.30	
H017-H016 H018-H017	H017	H017	10	163.53	0.0020	0.170	1.51	0.30	0.36
	1								
H019A-H018	H019A	H018	10	105.19	0.0021	0.150	1.50	0.27	0.33
H019-H019A	H019	H019A	10	244.75	0.0020	0.150	1.48	0.27	0.33
H020-H019	H020	H019	10	349.29	0.0020	0.150	1.47	0.28	0.33
H021-H020	H021	H020	10	75.24	0.0021	0.150	1.49	0.27	0.33
H022-H021	H022	H021 H010	10 8	72.48 62.07	0.0017	0.138 0.217	1.35 3.59	0.28 0.21	0.33
H023-H010	H023 H024	H023	8	558.60	0.0169 0.0163	0.217	2.97	0.21	0.31
H024-H023 H024-H025	H024	H025	10	245.01	0.0103	0.039	0.96	0.13	0.23
H025-H026	H025	H026	10	260.18	0.0018	0.059	0.96	0.14	0.17
H026-H027	H026	H027	10	279.48	0.0012	0.062	0.94	0.20	0.24
H027-H028	H027	H028	10	112.54	0.0012	0.003	1.04	0.21	0.25
	-	H029	10	257.18	0.0013	0.074	1.35	0.21	
H028-H029 H029-H030	H028 H029	H030	10		0.0017	0.135	1.33	0.27	0.33
	1			368.36 371.57					
H030-H031 H031-I012	H030 H031	H031	10	217.20	0.0012 0.0018	0.154 0.155	1.23 1.44	0.32 0.29	0.39
H037-H105	H037	H105	10	143.48	0.0018	0.133	1.44	0.29	0.34
H038-H037	H038	H037	10 8	255.33	0.0012	0.143	0.60	0.06	0.37
H039-H038	H039	H038	8	221.94	0.0023	0.007	0.50	0.04	0.10
H040-H037	H040	H037	10	176.19	0.0023	0.003	1.21	0.04	0.07
H041-H040	H041	H040	10	180.57	0.0013	0.133	1.14	0.29	0.36
H042-H041	H042	H041	10	208.95	0.0011	0.130	1.14	0.30	0.34
H043-H042	H043	H042	10	348.08	0.0013	0.130	1.18	0.29	0.34
H044-H043	H044	H043	8	263.66	0.0012	0.123	0.85	0.29	0.33
H045-H044	H045	H044	8	105.25	0.0024	0.017	0.83	0.03	0.14
H046-H045	H046	H045	8	185.11	0.0023	0.013	0.79	0.08	0.12
H047-H046	H047	H046 H047	8	256.71 257.07	0.0024	0.007	0.65	0.06	0.09
H048-H047	H048		8		0.0024	0.005	0.58 0.32	0.05	0.08
H049-H048	H049	H048	8	76.99	0.0025	0.001		0.02	0.03
H050-H043	H050	H043	10	370.83	0.0012	0.108	1.11	0.27	0.32
H051-H050	H051	H050	10	173.91	0.0012	0.070	0.99	0.21	0.25
H052-H051	H052	H051	8	31.75	0.0025	0.068	1.31	0.19	0.28
H053-H052	H053	H052	8	367.94	0.0049	0.012	0.98	0.07	0.10
H054-H053	H054	H053	8	349.15	0.0024	0.008	0.69	0.07	0.10
H055-H054	H055	H054	8	356.63	0.0024	0.005	0.59	0.05	0.08

Model Results - Future Peak Dry Weather Flow (PDWF) Scenario

	F		el Results - Futu		veather 110			Matau Danth	
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
H056-H050	H056	H050	8	120.40	0.0098	0.034	1.73	0.10	0.14
H057-H056	H057	H056	8	111.24	0.0058	0.034	1.43	0.11	0.16
H058-H057	H058	H057	8	202.28	0.0042	0.004	0.65	0.04	0.06
H059-H058	H059	H058	8	156.47	0.0025	0.002	0.46	0.03	0.05
H060-H044	H060	H044	8	295.35	0.0040	0.003	0.61	0.04	0.06
H061-H045	H061	H045	8	102.73	0.0024	0.002	0.44	0.03	0.05
H062-H046	H062	H046	8	154.62	0.0041	0.003	0.59	0.03	0.05
H063-H047	H063	H047	8	140.27	0.0040	0.002	0.57	0.03	0.05
H064-H048	H064	H048	8	139.81	0.0040	0.002	0.57	0.03	0.05
H065-H106	H065	H106	10	180.62	0.0013	0.056	0.95	0.19	0.23
H066-H065	H066	H065	8	250.93	0.0072	0.016	1.22	0.07	0.11
H067-H066	H067	H066	8	348.08	0.0024	0.013	0.79	0.08	0.12
H068A-H068	H068A	H068	8	251.25	0.0024	0.003	0.53	0.04	0.07
H068B-H068A	H068B	H068A	8	465.67	0.0060	0.002	0.66	0.03	0.05
H068-H067	H068	H067	8	312.25	0.0024	0.011	0.75	0.08	0.12
H069-H068	H069	H068	8	389.36	0.0042	0.004	0.68	0.04	0.06
H070-H065	H070	H065	8	71.63	0.0020	0.041	1.03	0.15	0.23
H071-H070	H071	H070	8	244.58	0.0020	0.037	1.01	0.15	0.22
H072-H071	H072	H071	8	327.00	0.0020	0.030	0.95	0.13	0.20
H073-H072	H073	H072	8	259.59	0.0018	0.025	0.87	0.12	0.19
H074-H073	H074	H073	8	251.92	0.0023	0.012	0.76	0.08	0.12
H075-H074	H075	H074	8	179.86	0.0026	0.008	0.71	0.07	0.10
H076-H075	H076	H075	8	270.02	0.0020	0.005	0.80	0.04	0.06
H077-H076	H077	H076	8	140.40	0.0061	0.003	0.80	0.04	0.00
H078-H075	H078	H075	8	281.19	0.0001	0.001	0.53	0.02	0.03
H079-H076	H079	H076	8	143.56	0.0023	0.004	0.33	0.03	0.07
H080-H071	H080	H071	8	224.74	0.0100	0.002	0.78	0.05	0.04
H081-H080	H081	H080	8	260.17	0.0020	0.003	0.54	0.05	0.08
H082-H073	H082	H073	8	329.25	0.0024	0.004	0.54	0.05	0.07
H083-B021	H083	B021	8	54.69	0.0024	0.065	1.44	0.03	0.08
H084-H083	H084	H083	8	227.00	0.0033	0.063	1.44	0.17	0.23
H085-H084	H085	H084	8	193.57	0.0030	0.051	1.19	0.16	0.24
H086-H085	H086	H085	8	21.87	0.0024	0.051	1.19	0.10	0.23
H087-H086	H087	H086	8	208.71	0.0018	0.036	1.06	0.17	0.26
H088-H087	H088	H087		122.13	0.0024	0.036	1.05	0.14	0.21
H089-H088	H089	H088	8	107.80	0.0024	0.034	1.05	0.13	0.20
H090-H089	H090	Н089	8	1	0.0022	0.033	0.86	0.14	
H091-H090	H091	H090	8	77.79 27.03	0.0013	0.030	1.10	0.14	
H091-H090	H092	H091	8	203.17	0.0037	0.024	0.86	0.10	
H093-B023	H093	B023	8	400.45	0.0024	0.015	1.01	0.10	
H094-H093	H094	H093	8	399.49	0.0042	0.013	0.81	0.06	
H095-B026A	H095	B026A	8	153.64	0.0038	0.003	0.61	0.04	0.05
H096-H095	H096	H095	8	85.04	0.0045	0.003	0.51	0.04	
H097-B003	H097	B003	8	373.62	0.0023	0.003	0.74	0.04	0.00
H098-H097	H098	H097	8	166.59	0.0024	0.003	0.74	0.08	0.12
H099-H097	H099	H097	8	267.45	0.0024	0.005	1.11	0.04	0.00
H100-H099		H099	8	148.76	0.0131	0.003	0.69	0.03	0.03
	H100	1			0.0176				
H101-H074	H101	H074	8	224.48		0.002	0.44	0.04	0.06
H102-B001	H102	B001	8	198.54	0.0060	0.002	0.65	0.03	
H103-H099	H103	H099	8	165.05	0.0070	0.003	0.75	0.03	
H105-H024	H105	H024	10	300.94	0.0013	0.146	1.26	0.30	
H106-H052	H106	H052	10	141.56	0.0011	0.056	0.91	0.19	
H107-B005	H107	B005	8	284.80	0.0051	0.003	0.62	0.03	
1001-1018	1001	1018	21	12.41	0.0073	0.895	3.62	0.38	
1002-1001	1002	1001	12	343.56	0.0020	0.043	1.01	0.14	0.14
1003-1002	1003	1002	12	300.48	0.0020	0.043	1.00	0.14	0.14

Model Results - Future Peak Dry Weather Flow (PDWF) Scenario

D' ID	From	То	Diameter	Length		Flow	Velocity	Water Depth	1/5
Pipe ID	ID	ID	(inches)	(feet)	Slope	(MGD)	(ft/s)	(feet)	d/D
1004-1003	1004	1003	12	351.75	0.0029	0.043	1.15	0.13	0.13
1005-1004	1005	1004	12	323.79	0.0020	0.030	0.90	0.12	0.12
1006-1005	1006	1005	12	4.86	0.0021	0.014	0.72	0.08	0.08
1007-1006	1007	1006	12	324.77	0.0020	0.014	0.72	0.08	0.08
1008-1007	1008	1007	12	135.46	0.0018	0.003	0.43	0.04	0.04
1009-1008	1009	1008	12	184.21	0.0021	0.000	0.00	0.00	0.00
1009-1023	1009	1023	12	10.72	0.0028	0.238	1.87	0.30	0.30
1010-1023	1010	1023	21	14.45	0.0021	1.455	2.66	0.67	0.38
1011-1010	1011	1010	10	330.03	0.0037	0.041	1.26	0.12	0.15
1012-1001	1012	1001	15	8.49	-0.0059	0.852	1.07	1.25	1.00
1013-1012	1013	1012	15	343.95	0.0017	0.697	2.07	0.55	0.44
1014-1013	1014	1013	15	351.61	0.0017	0.621	2.00	0.52	0.41
1015-1014	1015	1014	15	69.58	0.0017	0.621	2.01	0.52	0.41
I016A-I016	I016A	1016	15	350.07	0.0015	0.606	1.90	0.53	0.42
I016B-I016A	I016B	I016A	15	68.68	0.0015	0.606	1.87	0.53	0.43
1016-1015	1016	1015	15	278.72	0.0015	0.606	1.90	0.53	0.42
I017A-I017	I017A	1017	15	288.74	0.0015	0.500	1.81	0.47	0.38
I017B-I016B	I017B	1016B	15	248.61	0.0015	0.606	1.89	0.53	0.42
1017-1017B	1017	I017B	15	322.02	0.0015	0.606	1.90	0.53	0.42
1019-1018	1019	1018	24	534.85	0.0015	2.463	2.71	0.92	0.46
1020-1019	1020	1019	24	460.59	0.0013	2.463	2.56	0.96	0.48
1021-1006	1021	1006	12	11.22	0.0006	0.000	0.00	0.00	0.00
1021-1020	1021	1020	24	329.35	0.0018	2.448	2.86	0.88	0.44
1022-1021	1022	1021	21	458.96	0.0014	2.221	2.59	0.95	0.54
1023-1022	1023	1022	21	185.80	0.0014	2.191	2.55	0.95	0.54
1024-1023	1024	1023	12	411.81	0.0036	0.497	2.51	0.41	0.41
1025-1004	1025	1004	8	318.34	0.0024	0.013	0.79	0.08	0.13
1026-1025	1026	1025	8	331.20	0.0024	0.007	0.65	0.06	0.09
1027-1026	1027	1026	8	341.53	0.0024	0.005	0.60	0.05	0.08
1028-1027	1028	1027	8	125.19	0.0090	0.003	0.80	0.03	0.05
1029-1005	1029	1005	8	316.51	0.0024	0.016	0.84	0.09	0.14
1030-1029	1030	1029	8	329.03	0.0024	0.012	0.78	0.08	0.12
1031-1030	1031	1030	8	330.33	0.0024	0.007	0.65	0.06	0.09
1032-1031	1032	1031	8	202.53	0.0024	0.003	0.50	0.04	0.06
1033-1007	1033	1007	8	314.33	0.0024	0.011	0.75	0.08	0.12
1034-1033	1034	1033	8	329.41	0.0024	0.011	0.75	0.08	0.12
1035-1034	1035	1034	8	331.58	0.0024		0.66		0.10
1036-1035	1036	1035	8	265.34	0.0023	0.004	0.53	0.05	0.07
1037-1009	1037	1009	12	314.91	0.0013	0.236	1.41	0.36	0.36
1038-1037	1038	1037	12	336.29	0.0022	0.234	1.70		0.32
1039-1038	1039	1038	12	325.20	0.0019	0.232	1.60		0.33
1040-1039	1040	1039	12	255.16	0.0018	0.230	1.59		0.33
1041-1040	1041	1040	12	405.24	0.0018	0.228	1.57	0.33	0.33
1042-1041	1042	1041	12	59.91	0.0024	0.228	1.75	0.30	0.30
1043-1042	1043	1042	12	273.24	0.0024	0.180	1.63	0.27	0.27
1044-1043	1044	1043	12	317.06	0.0012	0.178	1.25	0.32	0.32
1045-1009	1045	1009	12	300.87	0.0021	0.002	0.43	0.04	0.04
1046-1045	1046	1045	12	309.89	0.0021	0.002	0.43	0.04	0.04
1047-1046	1047	1046	12	326.42	0.0020	0.002	0.42	0.04	0.04
1048-1047	1048	1047	12	273.76	0.0024	0.002	0.45	0.03	0.03
1049-1048	1049	1048	12	411.14	0.0016	0.002	0.39	0.04	0.04
1050-1049	1050	1049	12	342.23	0.0020	0.002	0.42	0.04	0.04
1051-1050	1051	1050	12	329.16	0.0019	0.002	0.42	0.04	0.04
1052-1042	1052	1042	8	89.58	0.0036	0.049	1.34	0.15	0.22
1053-1052	1053	1052	8	157.22	0.0024	0.049	1.16	0.16	0.24
1054-1053	1054	1053	8	365.30	0.0024	0.008	0.69	0.07	0.10

Model Results - Future Peak Dry Weather Flow (PDWF) Scenario

	From	To	Diameter	Length	vediner rio	Flow	Velocity	Water Depth	
Pipe ID	ID	ID	(inches)	(feet)	Slope	(MGD)	(ft/s)	(feet)	d/D
1055-1054	1055	1054	8	197.30	0.0024	0.005	0.60	0.05	0.08
1056-1055	1056	1055	8	157.27	0.0024	0.003	0.48	0.04	0.06
1057-1056	1057	1056	8	121.50	0.0040	0.003	0.58	0.03	0.05
1058-1053	1058	1053	8	143.04	0.0024	0.035	1.06	0.14	0.20
1059-1058	1059	1058	8	206.48	0.0025	0.031	1.03	0.13	0.19
1060-1059	1060	1059	8	40.25	0.0025	0.029	1.02	0.12	0.19
1061-1060	1061	1060	8	112.20	0.0023	0.028	0.98	0.12	0.18
1062-1061	1062	1061	8	42.83	0.0210	0.028	2.11	0.07	0.11
1063-1062	1063	1062	8	124.59	0.0023	0.026	0.96	0.12	0.18
1064-1063	1064	1063	8	28.31	0.0035	0.026	1.11	0.11	0.16
1065-1064	1065	1064	8	110.72	0.0024	0.023	0.94	0.11	0.16
1066-1065	1066	1065	8	239.17	0.0024	0.019	0.88	0.10	0.15
1067-1066	1067	1066	8	200.61	0.0024	0.010	0.74	0.07	0.11
1068-1067	1068	1067	8	287.48	0.0039	0.004	0.63	0.04	0.06
1069-1054	1069	1054	8	149.46	0.0040	0.003	0.62	0.04	0.06
1070-1055	1070	1055	8	106.00	0.0040	0.003	0.57	0.03	0.05
1071-1058	1071	1058	8	16.37	0.0024	0.002	0.41	0.03	0.05
1072-1059	1072	1059	8	75.20	0.0024	0.001	0.40	0.03	0.04
1073-1066	1073	1066	8	185.87	0.0040	0.005	0.72	0.05	0.07
1074-1073	1074	1073	8	62.76	0.0024	0.003	0.53	0.04	0.07
1075-1073	1075	1073	8	69.34	0.0025	0.002	0.45	0.03	0.05
1076-1067	1076	1067	8	142.84	0.0037	0.003	0.62	0.04	0.06
1077-1076	1077	1076	8	66.32	0.0047	0.003	0.67	0.04	0.06
1078-1104	1078	1104	8	190.95	0.0036	0.124	1.76	0.23	0.35
1079-1078	1079	1078	8	241.08	0.0036	0.124	1.76	0.23	0.35
1080-1079	1080	1079	8	306.02	0.0115	0.018	1.51	0.07	0.10
1081-1080	1081	1080	8	304.94	0.0031	0.014	0.88	0.08	0.12
1082-1081	1082	1081	8	349.48	0.0037	0.011	0.86	0.07	0.10
1083-1082	1083	1082	8	197.65	0.0084	0.006	0.99	0.04	0.07
1084-1011	1084	1011	8	315.30	0.0036	0.011	0.86	0.07	0.11
1085-1084	1085	1084	8	330.76	0.0036	0.007	0.76	0.06	0.09
1086-1085	1086	1085	8	256.16	0.0036	0.004	0.62	0.04	0.06
1087-1013	1087	1013	8	45.32	0.0040	0.046	1.37	0.14	0.21
1088-1087	1088	1087	8	60.16	0.0815	0.046	3.97	0.07	0.10
1089-1088	1089	1088	8	191.60	0.0041	0.046	1.39	0.14	0.21
1090-1089	1090	1089	8	288.00	0.0048	0.010	0.92	0.06	0.09
1091-1089	1091	1089	8	222.07	0.0058	0.023	1.27	0.09	0.13
1092-1015	1092	1015	8	166.50	0.0171	0.015	1.62	0.06	0.08
1093-1092	1093	1092	8	229.14	0.0040	0.009	0.85	0.06	0.09
1094-1093	1094	1093	8	228.00	0.0040	0.007	0.79	0.06	0.08
1095-1092	1095	1092	8	360.95	0.0040	0.003	0.60	0.04	0.06
1096-1094	1096	1094	8	296.98	0.0060	0.002	0.61	0.03	0.04
1096-1095	1096	1095	8	333.17	0.0061	0.002	0.61	0.03	0.04
1098-1043	1098	1043	8	119.75	0.0023	0.002	0.43	0.03	0.05
1099-1034	1099	1034	8	120.83	0.0118	0.000	0.00	0.00	0.00
1102-1103	1102	1103	18	350.40	0.0015	1.283	2.30	0.74	0.49
1103-1104	1103	1104	18	325.41	0.0015	1.283	2.28	0.74	0.49
1104-1105	1104	I105	18	425.90	0.0020	1.408	2.60	0.72	0.48
1105-1106	1105	1106	18	234.72	0.0020	1.409	2.59	0.72	0.48
1106-1107	1106	1107	18	322.16	0.0021	1.409	2.65	0.71	0.47
1107-1108	1107	1108	18	337.56	0.0020	1.410	2.61	0.72	0.48
1108-1010	1108	1010	18	308.66	0.0020	1.412	2.62	0.72	0.48
J001-I011	J001	1011	10	303.57	0.0036	0.030	1.14	0.11	0.13
J002-J001	J002	J001	10	98.40	0.0037	0.015	0.92	0.08	0.09
J003-J002	J003	J002	10	258.16	0.0036	0.015	0.91	0.08	0.09
J004-J003	J004	J003	10	320.21	0.0036	0.000	0.00	0.00	0.00

Model Results - Future Peak Dry Weather Flow (PDWF) Scenario

			el Results - Futu	_	realner Flot			_	
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
J004-J015	J004	J015	12	6.48	0.0031	0.312	2.08	0.34	0.34
J005-J004	J005	J004	10	264.92	0.0030	0.259	1.98	0.33	0.40
J006-J005	J006	J005	10	45.47	0.0026	0.256	1.89	0.34	0.41
J007-J006	J007	J006	10	168.40	0.0050	0.254	2.37	0.29	0.34
J008-J007	J008	J007	10	203.96	0.0024	0.254	1.82	0.35	0.42
J009-J008	J009	J008	10	329.72	0.0025	0.239	1.82	0.33	0.40
J010A-J010	J010A	J010	8	265.27	0.0100	0.004	0.90	0.03	0.05
J010B-J010A	J010B	J010A	8	247.90	0.0042	0.003	0.59	0.03	0.05
J010-J009	J010	J009	10	201.30	0.0023	0.239	1.77	0.34	0.41
J011-J010	J011	J010	10	148.25	0.0025	0.234	1.81	0.33	0.40
J012-J011	J012	J011	10	350.80	0.0025	0.234	1.79	0.33	0.40
J013-I024	J013	1024	12	329.16	0.0037	0.497	2.53	0.41	0.41
J013-J002	J013	J002	8	8.36	0.0551	0.000	0.00	0.00	0.00
J014-J013	J014	J013	12	249.33	0.0035	0.315	2.19	0.33	0.33
J015-J014	J015	J014	12	327.85	0.0035	0.315	2.19	0.33	0.33
J016-K002	J016	K002	8	52.58	0.0171	0.004	1.12	0.03	0.05
J017-J016	J017	J016	8	149.18	0.0056	0.003	0.70	0.04	0.05
J018-J017	J018	J017	8	72.17	0.0058	0.003	0.67	0.03	0.05
J019-J018	J019	J018	8	288.63	0.0032	0.002	0.51	0.03	0.05
J020-J001	J020	J001	8	319.06	0.0055	0.016	1.11	0.07	0.11
J021-J020	J021	J020	8	328.97	0.0056	0.014	1.08	0.07	0.11
J022-J021	J022	J021	8	241.41	0.0057	0.011	1.02	0.06	0.10
J023-J003	J023	J003	8	321.77	0.0025	0.011	0.75	0.08	0.11
J024-J023	J024	J023	8	153.56	0.0015	0.007	0.56	0.07	0.11
J025-J024	J025	J024	8	172.31	0.0085	0.006	0.96	0.04	0.06
J026-J023	J026	J023	8	160.02	0.0041	0.002	0.53	0.03	0.04
J027-J004	J027	J004	8	15.20	0.0053	0.044	1.49	0.13	0.19
J028A-J004	J028A	J004	8	337.47	0.0142	0.005	1.11	0.04	0.05
J028-J027	J028	J027	8	309.10	0.0040	0.044	1.36	0.13	0.20
J029-J028	J029	J028	8	161.23	0.0030	0.042	1.20	0.14	0.21
J030-J029	J030	J029	8	232.61	0.0024	0.038	1.08	0.14	0.21
J031-J030	J031	J030	8	261.61	0.0024	0.037	0.92	0.12	0.19
J032-J031	J032	J031	8	332.51	0.0024	0.027	0.98	0.12	0.18
J032-J031 J033-J032	J032	J032	8	355.38	0.0024	0.024	0.94	0.12	0.17
J033-J032 J034-J033	J033	J032 J033	8	362.99	0.0024	0.024	0.86	0.11	0.17
J035-J034	J035	J033	8	49.63	0.0202	0.017	1.72	0.05	0.14
J036-J035	J036	J035	8	352.08	0.0030	0.015	0.88	0.03	0.03
J030-J035 J037-J036	J030 J037	J035	8	307.32	0.0030	0.013	0.88	0.08	0.13
J037-J030 J038-J037	J037 J038	J030 J037	8	153.47	0.0024	0.010	0.73	0.07	0.11
J039-J030	J039	J030	8	187.47	0.0035	0.011	0.72	0.08	0.12
J040-J039	J040	J039	8	250.60	0.0023	0.011	0.73	0.08	0.12
J040-J039 J041-J040	J040 J041	J040	8	257.35	0.0024	0.010	0.73	0.08	0.11
J042-I079	J041 J042	1079	8	302.12	0.0024	0.104	1.68	0.07	0.10
J042-1079 J043-J042	J042 J043	J042	8	106.17	0.0036	0.104	1.62	0.21	0.30
J043-J042 J044-J043	J043 J044	J042 J043	8	246.14	0.0030	0.033	1.60	0.20	0.30
J044-J043 J045-J044	J044 J045	J043 J044	8	331.64	0.0037	0.062	1.44	0.19	0.25
J045-J044 J046-J045	J045 J046	J044 J045	8	101.06	0.0036	0.002	1.39	0.15	0.23
J046-J045 J047-J046			•						
J047-J046 J048-J047	J047 J048	J046 J047	8	245.47 257.53	0.0024 0.0024	0.016 0.010	0.85 0.73	0.09	0.14
J048-J047 J049-J048	J048 J049	J047 J048	8	350.19	0.0024	0.010	0.73	0.08	0.11
		+	•						
J050-J049	J050	J049	8	200.23	0.0024	0.005	0.58	0.05	0.08
J051-J044	J051	J044	8	302.97	0.0024	0.020	0.89	0.10	0.16
J052-J051	J052	J051	8	301.14	0.0024	0.015	0.82	0.09	0.13
J053-J052	J053	J052	8	353.90	0.0021	0.008	0.65	0.07	0.10
J054-J053	J054	J053	8	199.03	0.0024	0.005	0.59	0.05	0.08
J055-J052	J055	J052	8	155.51	0.0023	0.002	0.47	0.04	0.06

Model Results - Future Peak Dry Weather Flow (PDWF) Scenario

	Fuere		Piamatar					Water Doubh	
Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
1056 1044	ID	ID	(inches)	(feet)	0.0045	(MGD)	(ft/s)	(feet)	0.07
J056-J044	J056	J044	8	386.06	0.0045	0.006	0.78	0.05	0.07
J057-J056	J057	J056	8	318.68	0.0027	0.002	0.47	0.03	0.05
J058-J057	J058	J057	8	224.51	0.0057	0.001	0.46	0.02	0.03
J059-J057	J059	J057	8	248.31	0.0037	0.001	0.36	0.02	0.03
J060-J042	J060	J042	8	300.82	0.0024	0.011	0.75	0.08	0.12
J061-J060	J061	J060	8	305.54	0.0023	0.007	0.65	0.06	0.10
J062-J061	J062	J061	8	350.99	0.0025	0.005	0.61	0.05	0.08
J063-J062	J063	J062	8	172.55	0.0024	0.003	0.48	0.04	0.06
J064-J043	J064	J043	8	302.05	0.0024	0.005	0.58	0.05	0.08
J065-J064	J065	J064	8	306.90	0.0023	0.004	0.54	0.05	0.07
J066-J065	J066	J065	8	347.83	0.0025	0.003	0.51	0.04	0.06
J067-J066	J067	J066	8	218.34	0.0023	0.001	0.35	0.03	0.04
J068-J046	J068	J046	8	330.39	0.0038	0.036	1.26	0.12	0.19
J069-J068	J069	J068	8	323.71	0.0034	0.019	1.00	0.09	0.14
J070-J069	J070	J069	8	249.20	0.0026	0.017	0.87	0.09	0.14
J071-J070	J071	J070	8	253.87	0.0030	0.015	0.89	0.08	0.13
J072-J071	J072	J071	8	351.21	0.0060	0.006	0.84	0.05	0.07
J073-J072	J073	J072	8	100.47	0.0060	0.003	0.70	0.03	0.05
J074-J068	J074	J068	8	251.93	0.0052	0.018	1.13	0.08	0.12
J075-J074	J075	J074	8	255.17	0.0048	0.013	1.01	0.07	0.11
J076-J075	J076	J075	8	349.80	0.0048	0.010	0.93	0.06	0.09
J077-J076	J077	J076	8	198.72	0.0048	0.005	0.75	0.04	0.07
J078-K033	J078	K033	8	324.22	0.0020	0.012	0.72	0.08	0.12
J079-J078	J079	J078	8	326.03	0.0020	0.010	0.68	0.08	0.11
J080-J079	J080	J079	8	296.41	0.0020	0.006	0.59	0.06	0.09
J081-J052	J081	J052	8	157.65	0.0024	0.003	0.48	0.04	0.06
J082-J080	J082	1080	8	26.47	0.0053	0.003	0.65	0.03	0.05
K001-J012	K001	J012	10	339.69	0.0029	0.231	1.90	0.31	0.38
K002-K001	K002	K001	8	65.28	0.0075	0.111	2.22	0.18	0.27
K003-K002	K003	K002	8	25.30	0.0079	0.106	2.23	0.18	0.26
K004-K003	K004	K003	8	313.97	0.0140	0.040	2.04	0.09	0.14
K005-K004	K005	K004	8	319.73	0.0040	0.035	1.27	0.12	0.18
K006-K003	K006	K003	8	214.91	0.0032	0.067	1.41	0.18	0.26
K007A-K007	K007A	K007	8	406.37	0.0039	0.055	1.44	0.15	0.23
K007-K006	K007	K006	8	208.69	0.0032	0.067	1.41	0.18	0.26
K008-K007	K008	K007	8	263.04	0.0032	0.006	0.71	0.06	0.08
K009-K008	K009	K008	8	285.58	0.0032	0.004	0.61	0.04	0.07
K010-E010	K010	E010	8	133.52	0.0027	0.113	1.54	0.24	0.36
K011-K010	K011	K010	8	308.30	0.0024	0.109	1.47	0.24	0.37
K012-K011	K012	K011	8	202.46	0.0024	0.092	1.40	0.22	0.33
K013-K012	K013	K012	8	20.61	0.0029	0.091	1.49	0.21	0.32
K014-K013	K014	K013	8	140.37	0.0024	0.058	1.21	0.18	0.26
K015-K014	K015	K014	8	133.12	0.0025	0.057	1.23	0.17	0.26
K016-K015	K016	K015	8	128.02	0.0024	0.053	1.20	0.17	0.25
K017-K016	K017	K016	8	301.15	0.0024	0.053	1.19	0.17	0.25
K018-K017	K018	K017	8	298.64	0.0024	0.038	1.09	0.14	0.21
K019-K018	K019	K018	8	278.75	0.0181	0.021	1.86	0.07	0.10
K020-K013	K020	K013	8	359.70	0.0034	0.032	1.17	0.12	0.18
K021-K020	K021	K020	8	358.42	0.0034	0.023	1.06	0.10	0.15
K022-K021	K022	K021	8	361.29	0.0100	0.013	1.29	0.06	0.09
K023-K024	K023	K024	8	288.48	0.0032	0.007	0.71	0.06	0.09
K024-K025	K024	K025	8	282.86	0.0032	0.010	0.81	0.07	0.10
K025-K011	K025	K011	8	290.40	0.0032	0.014	0.88	0.08	0.12
K026-K025	K026	K025	8	201.10	0.0032	0.001	0.38	0.02	0.03
K027-K024	K027	K024	8	197.24	0.0033	0.002	0.47	0.03	0.04
K028-K023	K028	K023	8	201.74	0.0032	0.002	0.48	0.03	0.05

Model Results - Future Peak Dry Weather Flow (PDWF) Scenario

VPPE		Fuere		Piamatar		veather 110			Matar Danth	
KO29+012 KO29 E012 8	Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
K030-001 K0301 E001 8 1916/7 0.0020 0.025 0.89 0.12 0.18 K031-K030 8 195-66 0.0036 0.0022 1.16 0.00 0.15 K032-K031 K031 8 153.65 0.0046 0.022 1.16 0.09 0.14 K032-K031 K032 K031 8 153.65 0.0046 0.027 1.15 0.00 0.14 K034-K035 K034 8 349.69 0.0007 0.023 0.97 0.11 0.16 0.00 K035-K035 K035 K035 K035 K035 K036 K035 8 284.72 0.0041 0.023 1.13 0.10 0.15 K039-088 K039 1038 8 69.67 0.0040 0.007 0.80 0.06 0.09 K812-1032 K8 318.40 0.0038 0.022 1.03 0.10 0.11 K813-K312 K8 318.40 0.0038									•	
K031-K030 K031 K031 R 1195.96 D.032 C032 L06 D.10 D.15 K032-K031 R032 R031 R 115.85 D.0006 D.013 D.00 D.14 K033-K032 K033 K032 R 349.69 D.0006 D.013 D.48 D.12 D.18 K034-K032 K035 K034 R 349.69 D.0006 D.023 D.11 D.10 D.14 K035-K034 K035 K034 R 284.42 D.0041 D.023 1.13 D.10 D.14 K035-K036 K035 K038 R 2827.79 D.0041 D.023 1.13 D.10 D.01 D.00		1	1						+	
\$6032-M031		1							*	
K033-M032 M033 M032 8 349.69 D.0006 0.013 0.48 0.12 0.11 0.16 K034-K913 8 316.89 0.0027 0.023 0.11 0.16 K035-K034 K035 K034 8 284.42 0.0043 0.023 1.15 0.10 0.14 K035-K035 K035 K035 8 284.79 0.0041 0.023 1.13 0.10 0.14 K035-M038 K039 8 255.98 0.0045 0.006 0.07 0.05 0.05 K040-K039 K040 K039 8 255.98 0.0045 0.006 0.77 0.05 0.05 K813-K812 K813 K812 8 338.95 0.0062 0.023 1.12 0.01 0.01 K813-K812 K813 K813 8 125.90 0.0062 0.023 1.12 0.09 0.04 K813-K812 K813 8 125.90 0.0065 0.074										
K034-K813 M34 K813 8 316.89 D.0027 D.023 D.97 D.11 D.16 K035-K034 M35 C034 8 284.42 D.0043 D.023 1.15 D.10 D.14 K035-K035 K036 K035 8 282.79 D.0041 D.023 1.13 D.10 D.15 K039-D038 K039 J038 8 68.67 D.0040 D.007 D.08 D.05 D.005 D.07 K812-D32 K132 L032 R.13 B.13 R.13 R.1			1							
K935-K934 K035 K036 R035 R036 R036 R037 L010 0.15 K039-0038 R039 J038 R 69.67 0.0040 0.007 0.00										
K835+K835 K035 R 282.79 0.0041 0.023 1.13 0.10 0.15 K839-1038 K039 J038 8 69.67 0.0046 0.007 0.80 0.06 0.09 K840-K039 R 253.98 0.0045 0.006 0.77 0.05 0.07 K812-L032 R812 L032 8 318.40 0.0038 0.023 1.10 0.10 0.15 K812-L032 R813 K812 8 338.95 0.0052 0.023 1.22 0.09 0.14 L001-L002 L003 L02 L03 0.09 0.04 1.02 0.03 0.02 0.03 0.03 0.02 0.03 0.02 0.03 0.03 0.04 1.12 0.09 0.14 1.02 0.03 0.03 0.04 1.02 1.03 0.03 0.04 1.02 1.03 0.02 0.03 0.03 0.04 1.02 0.03 0.04 1.02 0.03 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>										
K039-1038 K039 L038 8 69 677 0.0040 0.007 0.80 0.06 0.07 K040-K039 K039 8 253-98 0.0045 0.006 0.77 0.05 0.07 K812-K032 K812 L032 8 318-40 0.0038 0.023 1.10 0.10 0.15 K813-K812 K813 K812 L032 8 318-90 0.0068 0.001 1.02 0.00 0.02 0.03 L001-L010 L001 L001 8 128-50 0.0068 0.001 0.02 0.03 L001-L02 L003 L8 127-56 0.0094 0.024 1.14 0.13 0.01 L001-L010 L003 L8 127-56 0.0094 0.024 1.14 0.13 0.01 L001-L02 L003 L8 127-56 0.0094 0.024 1.14 0.13 0.01 L011-L010 L003 L8 127-54 0.0031 0.0										
K404-K639		-								
K812-L032 K812 L032 8 318.40 0.0038 0.023 1.10 0.10 0.15		ł								
K811-K812 K813		ł								
		1	1							
LIDO1-LIDO2										
L002-L003										
1003-K806										
		1	1						*	
	L003-K806									0.19
1012-1011	L010-L032	1		8	299.86			0.72		0.14
1013-F011	L011-L010	L011	L010	8	104.63	0.0030	0.014	0.86	0.08	0.12
1014-K023	L012-L011	L012	L011	8	94.44	0.0037	0.009	0.83	0.06	0.10
1015-1014	L013-F011	L013	F011	8	206.45	0.0032	0.005	0.64	0.05	0.07
1016-1001 1016 1001 8	L014-K023	L014	K023	8	305.05	0.0096	0.003	0.82	0.03	0.05
L017-L003	L015-L014	L015	L014	8	201.37	0.0032	0.001	0.44	0.03	0.04
L018-L017	L016-L001	L016	L001	8	453.04	0.0070	0.013	1.15	0.07	0.10
1019-1018		L017	L003	8		0.0040	0.010	0.87	0.07	0.10
1020-1803	L018-L017	L018	L017	8	156.46	0.0041	0.010	0.87	0.06	0.10
L021-L020	L019-L018	L019	L018	8	163.83	0.0075	0.010	1.08	0.06	0.08
L022-L021 L022 L021 8 64.73 0.0029 0.002 0.50 0.04 0.05 L023-L020 L023 L020 8 338.77 0.0024 0.060 1.24 0.18 0.27 L024-L023 L024 L023 8 207.76 0.0024 0.049 1.16 0.16 0.24 L025-L024 L025 L024 8 67.35 0.036 0.046 2.90 0.08 0.12 L026-L025 L026 L025 8 110.72 0.0098 0.046 1.88 0.11 0.17 L027-L026 L027 L026 8 289.85 0.0383 0.011 1.99 0.04 0.06 L028-L027 L028 L027 8 90.64 0.0097 0.011 1.23 0.06 0.08 L029-L026 L029 1036 3.362.23 0.0022 0.019 0.86 0.10 0.16 L031-L031 L031 L031 8 <td>L020-L803</td> <td>L020</td> <td>L803</td> <td>8</td> <td>211.78</td> <td>0.0024</td> <td>0.073</td> <td>1.31</td> <td>0.20</td> <td>0.29</td>	L020-L803	L020	L803	8	211.78	0.0024	0.073	1.31	0.20	0.29
1023-1020	L021-L020	L021	L020	8	211.19	0.0023	0.007	0.64	0.06	0.09
LO24-LO23	L022-L021	L022	L021	8	64.73	0.0029	0.002	0.50	0.04	0.05
L025-L024 L025 L024 8 67.35 0.0336 0.046 2.90 0.08 0.12 L026-L025 L026 L025 8 110.72 0.0098 0.046 1.88 0.11 0.17 L027-L026 L027 L026 8 289.85 0.0383 0.011 1.99 0.04 0.06 L028-L027 L028 L027 8 90.64 0.0097 0.011 1.23 0.06 0.08 L029-L026 L029 L026 8 326.23 0.0022 0.019 0.86 0.10 0.16 L030-L029 L030 L029 8 346.29 0.0040 0.016 1.01 0.08 0.13 L031-L031 L031A L031 8 321.18 0.0034 0.006 0.69 0.05 0.08 L031-L023 L031 L023 8 28.42 0.0795 0.011 2.56 0.03 0.05 L032-L032A L032 L032A </td <td>L023-L020</td> <td>L023</td> <td>L020</td> <td>8</td> <td>338.77</td> <td>0.0024</td> <td>0.060</td> <td>1.24</td> <td>0.18</td> <td>0.27</td>	L023-L020	L023	L020	8	338.77	0.0024	0.060	1.24	0.18	0.27
L026-L025 L026 L025 8 110.72 0.0098 0.046 1.88 0.11 0.17 L027-L026 L027 L026 8 289.85 0.0383 0.011 1.99 0.04 0.06 L028-L027 L028 L027 8 90.64 0.0097 0.011 1.23 0.06 0.08 L029-L026 L029 L026 8 326.23 0.0022 0.019 0.86 0.10 0.16 L030-L029 L030 L029 8 346.29 0.0040 0.016 1.01 0.08 0.13 L031A-L031 L031A L031 8 321.18 0.0034 0.006 0.69 0.05 0.08 L031-L023 L031 L023 8 28.42 0.0795 0.011 2.56 0.03 0.05 L032-L032A L032 L032A 8 48.96 0.1007 0.037 3.98 0.06 0.08 L803-L031 L803 L804<	L024-L023	L024	L023	8	207.76	0.0024	0.049	1.16	0.16	0.24
L027-L026 L027 L026 8 289.85 0.0383 0.011 1.99 0.04 0.06 L028-L027 L028 L027 8 90.64 0.0097 0.011 1.23 0.06 0.08 L029-L026 L029 L026 8 326.23 0.0022 0.019 0.86 0.10 0.16 L030-L029 L030 L029 8 346.29 0.0040 0.016 1.01 0.08 0.13 L031A-L031 L031A L031A 8 321.18 0.0034 0.006 0.69 0.05 0.08 L031-L023 L031 L031A 8 232.58 0.0047 0.002 0.60 0.03 0.05 L031-L023 L031 L023 8 28.42 0.0795 0.011 2.56 0.03 0.05 L032-L032A L032 L032A 8 48.96 0.1007 0.037 3.98 0.06 0.08 L803-L803 L804 L80	L025-L024	L025	L024	8	67.35	0.0336	0.046	2.90	0.08	0.12
L028-L027 L028 L027 8 90.64 0.0097 0.011 1.23 0.06 0.08 L029-L026 L029 L026 8 326.23 0.0022 0.019 0.86 0.10 0.16 L030-L029 L030 L029 8 346.29 0.0040 0.016 1.01 0.08 0.13 L031A-L031 L031A L031 8 321.18 0.0034 0.006 0.69 0.05 0.08 L031-L023 L031B L031A 8 232.58 0.0047 0.002 0.60 0.03 0.05 L031-L023 L031 L023 8 28.42 0.0795 0.011 2.56 0.03 0.05 L032-L032A L032 L032A 8 48.96 0.1007 0.037 3.98 0.06 0.08 L803-L007 L803 L007 8 196.58 0.0124 0.078 2.39 0.13 0.20 L804-L803 L804 L80	L026-L025	L026	L025	8	110.72	0.0098	0.046	1.88	0.11	0.17
L029-L026 L029 L026 8 326.23 0.0022 0.019 0.86 0.10 0.16 L030-L029 L030 L029 8 346.29 0.0040 0.016 1.01 0.08 0.13 L031A-L031 L031A L031 8 321.18 0.0034 0.006 0.69 0.05 0.08 L031B-L031A L031B L031A 8 232.58 0.0047 0.002 0.60 0.03 0.05 L031-L023 L031 L023 8 28.42 0.0795 0.011 2.56 0.03 0.05 L032-L032A L032 L032A 8 48.96 0.1007 0.037 3.98 0.06 0.08 L803-L007 L803 L007 8 196.58 0.0124 0.078 2.39 0.13 0.20 L804-L803 L804 L803 8 118.93 0.0119 0.005 1.01 0.04 0.05 L806-L805 L806	L027-L026	L027	L026	8	289.85	0.0383	0.011	1.99	0.04	0.06
L030-L029 L030 L029 8 346.29 0.0040 0.016 1.01 0.08 0.13 L031A-L031 L031A L031 8 321.18 0.0034 0.006 0.69 0.05 0.08 L031B-L031A L031B L031A 8 232.58 0.0047 0.002 0.60 0.03 0.05 L031-L023 L031 L023 8 28.42 0.0795 0.011 2.56 0.03 0.05 L032-L032A L032 L032A 8 48.96 0.1007 0.037 3.98 0.06 0.08 L803-L007 L803 L007 8 196.58 0.0124 0.078 2.39 0.13 0.20 L804-L803 L804 L803 8 118.93 0.0119 0.005 1.01 0.04 0.05 L805-L804 L805 L806 L805 8 318.88 0.020 0.02 0.43 0.04 0.06 M001-H023 M0	L028-L027	L028	L027	8	90.64	0.0097	0.011	1.23	0.06	0.08
L031A-L031 L031A L031 8 321.18 0.0034 0.006 0.69 0.05 0.08 L031B-L031A L031B L031A 8 232.58 0.0047 0.002 0.60 0.03 0.05 L031-L023 L031 L023 8 28.42 0.0795 0.011 2.56 0.03 0.05 L032-L032A L032 L032A 8 48.96 0.1007 0.037 3.98 0.06 0.08 L803-L007 L803 L007 8 196.58 0.0124 0.078 2.39 0.13 0.20 L804-L803 L804 L803 8 118.93 0.0119 0.005 1.01 0.04 0.05 L806-L805 L806 L805 8 318.88 0.0020 0.002 0.43 0.04 0.06 M001-H023 M001 H023 8 79.52 0.0021 0.100 1.37 0.24 0.36 M002-M001 M002 M	L029-L026	L029	L026	8	326.23	0.0022	0.019	0.86	0.10	0.16
L031B-L031A L031B L031A 8 232.58 0.0047 0.002 0.60 0.03 0.05 L031-L023 L031 L023 8 28.42 0.0795 0.011 2.56 0.03 0.05 L032-L032A L032 L032A 8 48.96 0.1007 0.037 3.98 0.06 0.08 L803-L007 L803 L007 8 196.58 0.0124 0.078 2.39 0.13 0.20 L804-L803 L804 L803 8 118.93 0.0119 0.005 1.01 0.04 0.05 L805-L804 L805 L804 8 322.07 0.0020 0.005 0.54 0.05 0.08 L806-L805 L806 L805 8 318.88 0.0020 0.002 0.43 0.04 0.06 M001-H023 M001 H023 8 79.52 0.0021 0.100 1.37 0.24 0.36 M002-M001 M002 M00	L030-L029	L030	L029	8	346.29	0.0040	0.016	1.01	0.08	0.13
L031-L023 L031 L023 8 28.42 0.0795 0.011 2.56 0.03 0.05 L032-L032A L032 L032A 8 48.96 0.1007 0.037 3.98 0.06 0.08 L803-L007 L803 L007 8 196.58 0.0124 0.078 2.39 0.13 0.20 L804-L803 L804 L803 8 118.93 0.0119 0.005 1.01 0.04 0.05 L805-L804 L805 L804 8 322.07 0.0020 0.005 0.54 0.05 0.08 L806-L805 L806 L805 8 318.88 0.0020 0.002 0.43 0.04 0.06 M001-H023 M001 H023 8 79.52 0.0021 0.100 1.37 0.24 0.36 M002-M001 M002 M001 8 250.41 0.0024 0.098 1.42 0.23 0.35 M003-M002 M003 M004 <td>L031A-L031</td> <td>L031A</td> <td>L031</td> <td>8</td> <td>321.18</td> <td>0.0034</td> <td>0.006</td> <td>0.69</td> <td>0.05</td> <td>0.08</td>	L031A-L031	L031A	L031	8	321.18	0.0034	0.006	0.69	0.05	0.08
L032-L032A L032 L032A 8 48.96 0.1007 0.037 3.98 0.06 0.08 L803-L007 L803 L007 8 196.58 0.0124 0.078 2.39 0.13 0.20 L804-L803 L804 L803 8 118.93 0.0119 0.005 1.01 0.04 0.05 L805-L804 L805 L806 L805 8 318.88 0.0020 0.005 0.54 0.05 0.08 L806-L805 L806 L805 8 318.88 0.0020 0.002 0.43 0.04 0.06 M001-H023 M001 H023 8 79.52 0.0021 0.100 1.37 0.24 0.36 M002-M001 M002 M001 8 250.41 0.0024 0.098 1.42 0.23 0.35 M003-M002 M003 M002 8 297.92 0.0024 0.092 1.39 0.22 0.34 M004-M003 M004 </td <td>L031B-L031A</td> <td>L031B</td> <td>L031A</td> <td>8</td> <td>232.58</td> <td>0.0047</td> <td>0.002</td> <td>0.60</td> <td>0.03</td> <td>0.05</td>	L031B-L031A	L031B	L031A	8	232.58	0.0047	0.002	0.60	0.03	0.05
L803-L007 L803 L007 8 196.58 0.0124 0.078 2.39 0.13 0.20 L804-L803 L804 L803 8 118.93 0.0119 0.005 1.01 0.04 0.05 L805-L804 L805 L806 L805 8 318.88 0.0020 0.002 0.43 0.04 0.06 M001-H023 M001 H023 8 79.52 0.0021 0.100 1.37 0.24 0.36 M002-M001 M002 M001 8 250.41 0.0024 0.098 1.42 0.23 0.35 M003-M002 M003 M002 8 297.92 0.0024 0.092 1.39 0.22 0.34 M004-M003 M004 M003 8 103.43 0.0044 0.090 1.72 0.19 0.28 M005-M004 M005 M004 8 230.63 0.0023 0.083 1.35 0.21 0.32 M006-M005 M006 <td>L031-L023</td> <td>L031</td> <td>L023</td> <td>8</td> <td>28.42</td> <td>0.0795</td> <td>0.011</td> <td>2.56</td> <td>0.03</td> <td>0.05</td>	L031-L023	L031	L023	8	28.42	0.0795	0.011	2.56	0.03	0.05
L804-L803 L804 L803 8 118.93 0.0119 0.005 1.01 0.04 0.05 L805-L804 L805 L804 8 322.07 0.0020 0.005 0.54 0.05 0.08 L806-L805 L806 L805 8 318.88 0.0020 0.002 0.43 0.04 0.06 M001-H023 M001 H023 8 79.52 0.0021 0.100 1.37 0.24 0.36 M002-M001 M002 M001 8 250.41 0.0024 0.098 1.42 0.23 0.35 M003-M002 M003 M002 8 297.92 0.0024 0.092 1.39 0.22 0.34 M004-M003 M004 M003 8 103.43 0.0044 0.090 1.72 0.19 0.28 M005-M004 M005 M004 8 230.63 0.0023 0.083 1.35 0.21 0.32 M006-M005 M006 M007 <td>L032-L032A</td> <td>L032</td> <td>L032A</td> <td>8</td> <td>48.96</td> <td>0.1007</td> <td>0.037</td> <td>3.98</td> <td>0.06</td> <td>0.08</td>	L032-L032A	L032	L032A	8	48.96	0.1007	0.037	3.98	0.06	0.08
L805-L804 L805 L804 8 322.07 0.0020 0.005 0.54 0.05 0.08 L806-L805 L806 L805 8 318.88 0.0020 0.002 0.43 0.04 0.06 M001-H023 M001 H023 8 79.52 0.0021 0.100 1.37 0.24 0.36 M002-M001 M002 M001 8 250.41 0.0024 0.098 1.42 0.23 0.35 M003-M002 M003 M002 8 297.92 0.0024 0.092 1.39 0.22 0.34 M004-M003 M004 M003 8 103.43 0.0044 0.090 1.72 0.19 0.28 M005-M004 M005 M004 8 230.63 0.0023 0.083 1.35 0.21 0.32 M006-M005 M006 M005 8 359.65 0.0103 0.019 1.47 0.07 0.11 M007-M006 M007 M006 <td>L803-L007</td> <td>L803</td> <td>L007</td> <td>8</td> <td>196.58</td> <td>0.0124</td> <td>0.078</td> <td>2.39</td> <td>0.13</td> <td>0.20</td>	L803-L007	L803	L007	8	196.58	0.0124	0.078	2.39	0.13	0.20
L806-L805 L806 L805 8 318.88 0.0020 0.002 0.43 0.04 0.06 M001-H023 M001 H023 8 79.52 0.0021 0.100 1.37 0.24 0.36 M002-M001 M002 M001 8 250.41 0.0024 0.098 1.42 0.23 0.35 M003-M002 M003 M002 8 297.92 0.0024 0.092 1.39 0.22 0.34 M004-M003 M004 M003 8 103.43 0.0044 0.090 1.72 0.19 0.28 M005-M004 M005 M004 8 230.63 0.0023 0.083 1.35 0.21 0.32 M006-M005 M006 M005 8 359.65 0.0103 0.019 1.47 0.07 0.11 M007-M006 M007 M006 8 91.46 0.0040 0.014 0.97 0.08 0.12 M009-M007 M009 M007 <td>L804-L803</td> <td>L804</td> <td>L803</td> <td>8</td> <td>118.93</td> <td>0.0119</td> <td>0.005</td> <td>1.01</td> <td>0.04</td> <td>0.05</td>	L804-L803	L804	L803	8	118.93	0.0119	0.005	1.01	0.04	0.05
M001-H023 M001 H023 8 79.52 0.0021 0.100 1.37 0.24 0.36 M002-M001 M002 M001 8 250.41 0.0024 0.098 1.42 0.23 0.35 M003-M002 M003 M002 8 297.92 0.0024 0.092 1.39 0.22 0.34 M004-M003 M004 M003 8 103.43 0.0044 0.090 1.72 0.19 0.28 M005-M004 M005 M004 8 230.63 0.0023 0.083 1.35 0.21 0.32 M006-M005 M006 M005 8 359.65 0.0103 0.019 1.47 0.07 0.11 M007-M006 M007 M006 8 91.46 0.0040 0.014 0.97 0.08 0.12 M009-M007 M008 M007 8 59.49 0.0414 0.004 1.51 0.03 0.04 M009-M007 M009 M007	L805-L804	L805	L804	8	322.07	0.0020	0.005	0.54	0.05	0.08
M002-M001 M002 M001 8 250.41 0.0024 0.098 1.42 0.23 0.35 M003-M002 M003 M002 8 297.92 0.0024 0.092 1.39 0.22 0.34 M004-M003 M004 M003 8 103.43 0.0044 0.090 1.72 0.19 0.28 M005-M004 M005 M004 8 230.63 0.0023 0.083 1.35 0.21 0.32 M006-M005 M006 M005 8 359.65 0.0103 0.019 1.47 0.07 0.11 M007-M006 M007 M006 8 91.46 0.0040 0.014 0.97 0.08 0.12 M008-M007 M008 M007 8 59.49 0.0414 0.004 1.51 0.03 0.04 M009-M007 M009 M007 8 162.34 0.0029 0.010 0.78 0.07 0.11 M010-M009 M010 M009 <td>L806-L805</td> <td>L806</td> <td>L805</td> <td>8</td> <td>318.88</td> <td>0.0020</td> <td>0.002</td> <td>0.43</td> <td>0.04</td> <td>0.06</td>	L806-L805	L806	L805	8	318.88	0.0020	0.002	0.43	0.04	0.06
M003-M002 M003 M002 8 297.92 0.0024 0.092 1.39 0.22 0.34 M004-M003 M004 M003 8 103.43 0.0044 0.090 1.72 0.19 0.28 M005-M004 M005 M004 8 230.63 0.0023 0.083 1.35 0.21 0.32 M006-M005 M006 M005 8 359.65 0.0103 0.019 1.47 0.07 0.11 M007-M006 M007 M006 8 91.46 0.0040 0.014 0.97 0.08 0.12 M008-M007 M008 M007 8 59.49 0.0414 0.004 1.51 0.03 0.04 M009-M007 M009 M007 8 162.34 0.0029 0.010 0.78 0.07 0.11 M010-M009 M010 M009 8 213.81 0.0023 0.008 0.67 0.07 0.10	M001-H023	M001	H023	8	79.52	0.0021	0.100	1.37	0.24	0.36
M004-M003 M004 M003 8 103.43 0.0044 0.090 1.72 0.19 0.28 M005-M004 M005 M004 8 230.63 0.0023 0.083 1.35 0.21 0.32 M006-M005 M006 M005 8 359.65 0.0103 0.019 1.47 0.07 0.11 M007-M006 M007 M006 8 91.46 0.0040 0.014 0.97 0.08 0.12 M008-M007 M008 M007 8 59.49 0.0414 0.004 1.51 0.03 0.04 M009-M007 M009 M007 8 162.34 0.0029 0.010 0.78 0.07 0.11 M010-M009 M010 M009 8 213.81 0.0023 0.008 0.67 0.07 0.10	M002-M001	M002	M001	8	250.41	0.0024	0.098	1.42	0.23	0.35
M004-M003 M004 M003 8 103.43 0.0044 0.090 1.72 0.19 0.28 M005-M004 M005 M004 8 230.63 0.0023 0.083 1.35 0.21 0.32 M006-M005 M006 M005 8 359.65 0.0103 0.019 1.47 0.07 0.11 M007-M006 M007 M006 8 91.46 0.0040 0.014 0.97 0.08 0.12 M008-M007 M008 M007 8 59.49 0.0414 0.004 1.51 0.03 0.04 M009-M007 M009 M007 8 162.34 0.0029 0.010 0.78 0.07 0.11 M010-M009 M010 M009 8 213.81 0.0023 0.008 0.67 0.07 0.10	M003-M002	M003	M002	8	297.92	0.0024	0.092	1.39	0.22	0.34
M005-M004 M005 M004 8 230.63 0.0023 0.083 1.35 0.21 0.32 M006-M005 M006 M005 8 359.65 0.0103 0.019 1.47 0.07 0.11 M007-M006 M007 M006 8 91.46 0.0040 0.014 0.97 0.08 0.12 M008-M007 M008 M007 8 59.49 0.0414 0.004 1.51 0.03 0.04 M009-M007 M009 M007 8 162.34 0.0029 0.010 0.78 0.07 0.11 M010-M009 M010 M009 8 213.81 0.0023 0.008 0.67 0.07 0.10		 				0.0044				
M006-M005 M006 M005 8 359.65 0.0103 0.019 1.47 0.07 0.11 M007-M006 M007 M006 8 91.46 0.0040 0.014 0.97 0.08 0.12 M008-M007 M008 M007 8 59.49 0.0414 0.004 1.51 0.03 0.04 M009-M007 M009 M007 8 162.34 0.0029 0.010 0.78 0.07 0.11 M010-M009 M010 M009 8 213.81 0.0023 0.008 0.67 0.07 0.10	M005-M004	M005				0.0023	0.083	1.35		
M007-M006 M007 M006 8 91.46 0.0040 0.014 0.97 0.08 0.12 M008-M007 M008 M007 8 59.49 0.0414 0.004 1.51 0.03 0.04 M009-M007 M009 M007 8 162.34 0.0029 0.010 0.78 0.07 0.11 M010-M009 M010 M009 8 213.81 0.0023 0.008 0.67 0.07 0.10	M006-M005	M006	M005				0.019		+	
M008-M007 M008 M007 8 59.49 0.0414 0.004 1.51 0.03 0.04 M009-M007 M009 M007 8 162.34 0.0029 0.010 0.78 0.07 0.11 M010-M009 M010 M009 8 213.81 0.0023 0.008 0.67 0.07 0.10									+	
M009-M007 M009 M007 8 162.34 0.0029 0.010 0.78 0.07 0.11 M010-M009 M010 M009 8 213.81 0.0023 0.008 0.67 0.07 0.10		ł								
M010-M009 M010 M009 8 213.81 0.0023 0.008 0.67 0.07 0.10		ł								
		1								
	M011-M010	M011	M010	8	328.18	0.0024	0.005	0.60	0.06	0.08

Model Results - Future Peak Dry Weather Flow (PDWF) Scenario

Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
ripe ib	ID	ID	(inches)	(feet)	Siope	(MGD)	(ft/s)	(feet)	u, D
M012-M011	M012	M011	8	120.73	0.0051	0.005	0.78	0.05	0.07
M013-M004	M013	M004	8	249.71	0.0305	0.004	1.39	0.03	0.04
M014-M013	M014	M013	8	78.79	0.0039	0.001	0.47	0.03	0.04
M015-M008	M015	M008	8	98.83	0.0065	0.004	0.79	0.04	0.06
M016-M005	M016	M005	8	66.98	0.0023	0.063	1.24	0.18	0.28
M017-M016	M017	M016	8	65.41	0.0023	0.062	1.23	0.18	0.27
M018-M017	M018	M017	8	238.51	0.0020	0.026	0.92	0.12	0.19
M019-M018	M019	M018	8	114.29	0.0024	0.004	0.55	0.05	0.07
M020-M019	M020	M019	8	29.32	0.1214	0.004	2.18	0.02	0.03
M021-M020	M021	M020	8	147.14	0.0040	0.004	0.67	0.04	0.06
M022-M017	M022	M017	8	216.73	0.0023	0.029	0.99	0.13	0.19
M023-M022	M023	M022	8	197.36	0.0024	0.026	0.97	0.12	0.18
M024-M023	M024	M023	8	242.75	0.0021	0.020	0.86	0.11	0.16
M025-M024	M025	M024	8	88.29	0.0399	0.002	1.22	0.02	0.03
M026-M024	M026	M024	8	85.67	0.0369	0.002	1.14	0.02	0.03
M027-M024	M027	M024	8	177.64	0.0025	0.016	0.85	0.09	0.14
M028-M027	M028	M027	8	80.26	0.0021	0.016	0.80	0.10	0.14
M029-M028	M029	M028	8	37.28	0.0026	0.015	0.83	0.09	0.13
M030-M029	M030	M029	8	229.79	0.0024	0.007	0.66	0.06	0.09
M031-M030	M031	M030	8	209.57	0.0024	0.005	0.59	0.05	0.08
M032-M031	M032	M031	8	210.07	0.0024	0.003	0.50	0.04	0.06
M033-M028	M033	M028	8	80.18	0.0160	0.001	0.76	0.02	0.03
M034-M029	M034	M029	8	156.56	0.0040	0.004	0.68	0.04	0.07
M035-M034	M035	M034	8	98.20	0.0040	0.004	0.68	0.04	0.07
M036-M018	M036	M018	8	347.08	0.0024	0.016	0.84	0.09	0.14
M037-M036	M037	M036	8	127.11	0.0290	0.002	1.12	0.02	0.03
M038-M036	M038	M036	8	207.42	0.0024	0.010	0.74	0.08	0.11
M039-M038	M039	M038	8	225.51	0.0024	0.008	0.68	0.07	0.10
M040-M039	M040	M039	8	152.47	0.0040	0.006	0.74	0.05	0.08
M041-M040	M041	M040	8	125.91	0.0041	0.002	0.57	0.03	0.05
M042-M040	M042	M040	8	109.35	0.0039	0.002	0.51	0.03	0.04
M043-H028	M043	H028	8	304.74	0.0013	0.051	0.95	0.19	0.29
M044-M043	M044	M043	8	150.92	0.0020	0.016	0.78	0.10	0.15
M045-M044	M045	M044	8	32.88	0.0046	0.006	0.78	0.05	0.07
M046-M045	M046	M045	8	113.39	0.0053	0.006	0.82	0.05	0.07
M047-M046	M047	M046	8	111.85	0.0060	0.002	0.60	0.03	0.04
M048-M044	M048	M044	8	141.92	0.0044	0.010	0.90		0.10
M049-M048	M049	M048	8	68.54	0.0146	0.001	0.71	0.02	0.03
M050-M048	M050	M048	8	264.07	0.0039	0.004	0.65	0.04	0.06
M051-M050	M051	M050	8	91.85	0.0039	0.002	0.52	0.03	0.04
M052-M050	M052	M050	8	97.89	0.0039	0.002	0.53	0.03	0.05
M053-M043	M053	M043	8	162.96	0.0020	0.036	1.00	0.14	0.21
M054-M053	M054	M053	8	200.63	0.0020	0.031	0.95	0.13	0.20
M055-M054	M055	M054	8	175.18	0.0021	0.026	0.92	0.12	0.18
M056-M055	M056	M055	8	124.49	0.0024	0.016	0.83	0.09	0.14
M057-M056	M057	M056	8	130.65	0.0015	0.016	0.71	0.10	0.15
M058-M057	M058	M057	8	265.40	0.0025	0.016	0.84	0.09	0.14
M059-M058	M059	M058	8	172.11	0.0024	0.009	0.71	0.07	0.11
M060-M055	M060	M055	8	112.44	0.0024	0.010	0.71	0.07	0.11
M061-M060	M061	M060	8	112.44	0.0023	0.010	0.72	0.08	0.11
M062-M060	M062	M060	8	166.87	0.0024	0.002	0.47	0.04	0.00
M063-M062	M063	M062	8	50.55	0.0025	0.006	0.62	0.06	0.09
M064-M063	M064	M063	8	41.82	0.0025	0.006	0.63	0.06	0.09
M065-M064		M064	8	58.79	0.0023	0.006	0.63	0.06	0.09
-	M065	_							
M066A-N092	M066A	N092	8	105.50	0.0845	0.008	2.38		0.04
M066-M066A	M066	M066A	8	18.46	0.0157	0.008	1.32	0.04	0.06

Model Results - Future Peak Dry Weather Flow (PDWF) Scenario

Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
Pipe ID	ID	ID	(inches)	(feet)	-	(MGD)	(ft/s)	(feet)	u/D
M067-M066	M067	M066	8	351.06	0.0086	0.008	1.07	0.05	0.07
M068-N094	M068	N094	8	131.56	0.0017	0.059	1.08	0.19	0.29
M069-M068	M069	M068	8	68.75	0.0019	0.056	1.11	0.18	0.27
M070-M069	M070	M069	8	136.67	0.0020	0.049	1.09	0.17	0.25
M071-M070	M071	M070	8	141.35	0.0016	0.043	0.98	0.17	0.25
M072-M071	M072	M071	8	54.01	0.0020	0.043	1.06	0.16	0.23
M073-M072	M073	M072	8	44.37	0.0018	0.026	0.88	0.13	0.19
M074-M073	M074	M073	8	75.91	0.0018	0.018	0.79	0.10	0.16
M075-M074	M075	M074	8	149.71	0.0021	0.018	0.83	0.10	0.15
M076-M075	M076	M075	8	24.44	0.0021	0.013	0.75	0.09	0.13
M077-M076	M077	M076	8	178.24	0.0022	0.009	0.69	0.07	0.11
M078-M077	M078	M077	8	15.22	0.0046	0.002	0.59	0.03	0.05
M079-M078	M079	M078	8	103.98	0.0020	0.002	0.44	0.04	0.06
M080-M068	M080	M068	8	175.94	0.0205	0.003	1.06	0.03	0.04
M081-M070	M081	M070	8	39.12	0.0041	0.006	0.76	0.05	0.08
M082-M081	M082	M081	8	219.67	0.0040	0.003	0.58	0.03	0.05
M083-M082	M083	M082	8	122.25	0.0039	0.003	0.57	0.03	0.05
M084-M069	M084	M069	8	219.48	0.0041	0.007	0.80	0.06	0.08
M085-M084	M085	M084	8	325.40	0.0039	0.002	0.53	0.03	0.05
M086-M072	M086	M072	8	173.38	0.0040	0.017	1.02	0.08	0.13
M087-M086	M087	M086	8	279.92	0.0040	0.009	0.83	0.06	0.09
M088-M073	M088	M073	8	176.10	0.0040	0.003	0.57	0.03	0.05
M089-M075	M089	M075	8	132.74	0.0041	0.005	0.70	0.05	0.07
M090-M089	M090	M089	8	103.46	0.0041	0.003	0.59	0.04	0.05
M091-M089	M091	M089	8	85.87	0.0040	0.001	0.42	0.02	0.03
M092-M077	M092	M077	8	212.79	0.0024	0.007	0.65	0.06	0.09
M093-M092	M093	M092	8	169.76	0.0180	0.004	1.12	0.03	0.05
M094-M093	M094	M093	8	264.84	0.0024	0.003	0.48	0.04	0.06
M095-N013	M095	N013	8	392.43	0.0060	0.011	1.03	0.06	0.09
N002-N001	N002	N001	8	7.60	1.1124	0.014	6.80	0.02	0.03
N003-N002	N003	N002	8	140.56	0.0047	0.010	0.93	0.06	0.10
N004-N003	N004	N003	8	352.94	0.0040	0.010	0.87	0.07	0.10
N008-N002	N008	N002	8	187.28	0.0040	0.004	0.64	0.04	0.06
N009-N010	N009	N010	8	397.32	0.0087	0.001	0.53	0.02	0.03
N010-N006	N010	N006	8	6.12	0.9820	0.006	5.17	0.01	0.02
N011-N012	N011	N012	8	146.81	0.0070	0.002	0.61	0.02	0.04
N012-N007	N012	N007	8	10.94	0.0923	0.016	3.01	0.04	0.06
N013-N012	N013	N012	8	89.48	0.0192	0.014	1.69	0.05	0.08
N014-N013	N014	N013	8	82.82	0.0069	0.004	0.77	0.04	0.05
N015-N014	N015	N014	8	121.18	0.0120		0.76		0.03
N017-N018	N017	N018	8	142.82	0.0039		0.45	0.02	0.04
N018-N092	N018	N092	8	56.41	0.0452		2.25	0.04	0.07
N019-N018	N019	N018	8	177.21	0.0032	0.007	0.72	0.06	0.09
N020-N019	N020	N019	8	360.42	0.0033		0.72	0.06	0.09
N021-N018	N021	N018	8	138.34	0.0099		1.03	0.04	0.06
N022-N021	N022	N021	8	348.23	0.0032		0.68	0.05	0.08
N023-N022	N023	N022	8	302.26	0.0033		0.58	0.04	0.06
N024-I021	N024	1021	12	151.95	0.0026		1.79	0.30	0.30
N025-N024	N025	N024	15	102.82	0.0009	0.217	1.17	0.35	0.38
N026-N025	N026	N025	15	129.78	0.0008		1.12	0.36	0.29
N027-N026	N027	N026	15	20.16	0.0010		1.22	0.34	0.27
N027-N020 N028-N027	N027	N027	15	115.95	0.0010		1.12	0.34	0.27
N029-N027	N028	N027	15	28.33	0.0008		1.12	0.38	0.29
N030-N029	N030	N028 N029	15	133.58	0.0011	0.210	1.25	0.33	0.27
		_							
N031-N030	N031	N030	15	95.83	0.0009		1.19		0.27
N032-N095	N032	N095	12	130.65	0.0012	0.200	1.32	0.34	0.34

Model Results - Future Peak Dry Weather Flow (PDWF) Scenario

	F		el Results - Futu		veather 110	,		Matau Dauth	
Pipe ID	From	To	Diameter	Length (foot)	Slope	Flow (MGD)	Velocity	Water Depth	d/D
N033-N032	N033	N032	(inches)	(feet) 325.24	0.0012	0.194	(ft/s) 1.30	(feet) 0.34	0.24
	1		12						0.34
N034-N033	N034	N033 N034	12 12	295.68	0.0012	0.167	1.25 1.22	0.31	0.31
N035-N034	N035	+		296.87	0.0012	0.161			0.31
N036-N035	N036	N035	12	291.04	0.0015	0.137	1.27	0.27	0.27
N037-N036	N037	N036	12	295.39	0.0014	0.117	1.17	0.25	0.25
N038-N037	N038	N037	12	328.67	0.0011	0.098	1.02	0.24	0.24
N039-N038	N039	N038	8	351.12	0.0021	0.019	0.85	0.10	0.16
N040-N039	N040	N039	8	350.04	0.0027	0.016	0.87	0.09	0.14
N041-N040	N041	N040	8	350.40	0.0024	0.011	0.75	0.08	0.12
N042-N041	N042	N041	8	351.89	0.0024	0.006	0.64	0.06	0.09
N043-N042	N043	N042	8	155.63	0.0040	0.002	0.56	0.03	0.05
N044-N024	N044	N024	8	188.69	0.0038	0.010	0.84	0.07	0.10
N045-N044	N045	N044	8	120.12	0.0036	0.008	0.78	0.06	0.09
N046-N045	N046	N045	8	33.87	0.0033	0.006	0.71	0.06	0.08
N047-N046	N047	N046	8	113.01	0.0037	0.005	0.70	0.05	0.07
N048-N047	N048	N047	8	16.67	0.0036	0.004	0.63	0.04	0.06
N049-N048	N049	N048	8	144.14	0.0040	0.003	0.59	0.04	0.05
N050-N049	N050	N049	8	171.77	0.0038	0.001	0.35	0.02	0.02
N051-N025	N051	N025	8	83.97	0.0811	0.002	1.43	0.01	0.02
N052-N026	N052	N026	8	98.61	0.0484	0.002	1.17	0.02	0.02
N053-N027	N053	N027	8	85.84	0.0417	0.001	0.97	0.01	0.02
N054-N028	N054	N028	8	97.27	0.0358	0.002	1.07	0.02	0.02
N055-N029	N055	N029	8	83.87	0.0352	0.001	0.98	0.01	0.02
N056-N030	N056	N030	8	84.03	0.0331	0.001	0.97	0.02	0.02
N057-N033	N057	N033	8	290.98	0.0024	0.025	0.96	0.12	0.17
N058-N057	N058	N057	8	305.40	0.0024	0.019	0.89	0.10	0.15
N059-N058	N059	N058	8	308.21	0.0024	0.014	0.80	0.09	0.13
N060-N059	N060	N059	8	323.69	0.0024	0.011	0.74	0.08	0.11
N061-N060	N061	N060	8	90.73	0.0072	0.008	1.01	0.05	0.08
N062-N061	N062	N061	8	245.20	0.0022	0.005	0.59	0.06	0.08
N063-N062	N063	N062	8	231.82	0.0026	0.002	0.46	0.03	0.05
N064-N034	N064	N034	8	352.38	0.0047	0.007	0.82	0.05	0.08
N065-N064	N065	N064	8	192.34	0.0037	0.002	0.53	0.03	0.05
N066-N035	N066	N035	8	349.57	0.0024	0.019	0.89	0.10	0.15
N067-N066	N067	N066	8	351.73	0.0025	0.015	0.84	0.09	0.14
N068-N067	N068	N067	8	349.04	0.0024	0.011	0.75	0.08	0.12
N069-N068	N069	N068	8	349.92	0.0024	0.006	0.63	0.06	0.09
N070-N069	N070	N069	8	110.69	0.0024	0.002	0.44	0.03	0.05
N071-N036	N071	N036	8	351.14	0.0024	0.021	0.90	0.10	0.16
N072-N071	N072	N071	8	349.04	0.0024	0.015	0.83	0.09	0.14
N073-N072	N073	N072	8	350.89	0.0024	0.011	0.75	0.08	0.12
N074-N073	N074	N073	8	349.96	0.0024	0.006	0.63	0.06	0.09
N075-N074	N075	N074	8	121.01	0.0024	0.002	0.42	0.03	0.05
N076-N037	N076	N037	8	351.74	0.0024	0.019	0.89	0.10	0.15
N077-N076	N077	N076	8	350.59	0.0024	0.015	0.83	0.09	0.14
N078-N077	N078	N077	8	348.52	0.0024	0.011	0.74	0.08	0.11
N079-N078	N079	N078	8	348.41	0.0024	0.006	0.63	0.06	0.09
N080-N079	N080	N079	8	164.51	0.0024	0.002	0.47	0.04	0.06
N081-N044	N081	N044	8	48.75	0.0851	0.002	1.48	0.01	0.02
N082-N045	N082	N045	8	91.95	0.0302	0.002	1.00	0.02	0.03
N083-N046	N083	N046	8	49.33	0.0470	0.001	1.01	0.01	0.02
N084-N047	N084	N047	8	97.62	0.0163	0.002	0.81	0.02	0.03
N085-N048	N085	N048	8	45.43	0.0315	0.001	0.90	0.01	0.02
N086-N049	N086	N049	8	45.57	0.0033	0.001	0.40	0.02	0.03
N087-N057	N087	N057	8	228.58	0.0037	0.001	0.46	0.04	0.03
N087-N057	N087	N058	8	123.56	0.0037	0.004	0.65	0.04	
14000-14030	14000	14020	0	123.30	0.0047	0.003	0.05	0.04	0.05

Model Results - Future Peak Dry Weather Flow (PDWF) Scenario

	Fuene		el Results - Futu		veather 110	,		Water Dauth	
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
N089-I022	N089	1022	8	360.33	0.0025	0.030	1.02	0.12	0.19
N090-N089	N090	N089	8	296.23	0.0024	0.017	0.86	0.10	0.14
N091-N090	N091	N090	8	195.08	0.0032	0.017	0.95	0.09	0.13
N095-N096	N095	N096	12	316.95	0.0012	0.207	1.32	0.35	0.35
N096-N097	N096	N097	15	10.82	0.0011	0.207	1.26	0.33	0.26
N097-N031	N097	N031	15	69.55	0.0007	0.207	1.08	0.36	0.29
N098-N010	N098	N010	8	199.26	0.0086	0.004	0.85	0.03	0.05
N099-N008	N099	N008	8	45.44	0.0046	0.002	0.59	0.03	0.05
0001-0032	0001	0032	8	352.39	0.0024	0.175	1.66	0.32	0.47
O002-O001	0002	0001	8	357.97	0.0024	0.165	1.62	0.31	0.46
O003-O002	0003	0002	8	339.74	0.0025	0.162	1.65	0.30	0.45
O004-O003	0004	0003	8	116.62	0.0021	0.155	1.52	0.31	0.46
O005-O004	0005	0004	8	231.69	0.0026	0.010	0.75	0.07	0.11
O006-O005	0006	0005	8	309.84	0.0025	0.010	0.74	0.07	0.11
O007-O006	0007	0006	8	201.12	0.0024	0.010	0.73	0.07	0.11
O008-O007	0008	0007	8	200.99	0.0026	0.007	0.68	0.06	0.09
O009A-O004	O009A	0004	8	86.35	0.0029	0.145	1.70	0.27	0.40
O009-O009A	0009	O009A	8	116.52	0.0022	0.145	1.52	0.29	0.44
O012-O133	0012	0133	8	137.80	0.0023	0.098	1.39	0.23	0.35
O013-O012	0013	0012	8	117.21	0.0024	0.094	1.40	0.23	0.34
0014-0013	0014	0013	8	31.49	0.0024	0.065	1.45	0.17	0.25
O015A-O015	O015A	0015	8	139.99	0.0039	0.055	1.43	0.15	0.23
0015-0014	0015/	0013	8	81.38	0.0033	0.065	1.54	0.16	0.24
O016A-O015A	0016A	0015A	8	105.26	0.0034	0.055	1.36	0.16	0.24
O016-O016A	0016	0015/t	8	26.31	0.0027	0.055	1.26	0.17	0.25
0017-0031	0017	0031	8	276.21	0.0052	0.012	1.02	0.07	0.10
0018-0017	0017	0017	8	88.55	0.0032	0.012	0.69	0.07	0.10
0019-0018	0019	0017	8	165.32	0.0022	0.003	0.50	0.04	0.07
0020-0018	0020	0018	8	311.12	0.0024	0.005	0.59	0.05	0.07
0021-0016	0021	0016	8	177.54	0.0024	0.040	1.02	0.15	0.23
0022-0021	0022	0021	8	217.34	0.0024	0.038	1.09	0.14	0.21
0023-0022	0023	0022	8	250.45	0.0024	0.034	1.04	0.13	0.20
0024-0023	0024	0023	8	204.55	0.0023	0.010	0.72	0.08	0.11
0025-0024	0025	0024	8	272.79	0.0026	0.008	0.71	0.07	0.10
0026-0025	0026	0025	8	219.91	0.0023	0.005	0.60	0.06	0.08
0027-0026	0027	0026	8	226.94	0.0023	0.003	0.50	0.04	0.06
0028-0023	0028	0023	8	135.42	0.0038	0.022	1.09	0.10	
0029-0013	0029	0013	8	259.61	0.0034	0.030	1.14	0.12	0.17
O030A-O029	O030A	0029	8	138.32	0.0027	0.011	0.78	0.08	0.12
O030-O030A	0030	O030A	8	109.69	0.0041	0.011	0.91	0.07	0.10
0031-0016	0031	0016	8	254.98	0.0060	0.015	1.15	0.07	0.11
O032-J013	0032	J013	8	341.01	0.0034	0.182	1.92	0.29	0.44
O133-O134A	0133	O134A	8	117.79	0.0023	0.101	1.42	0.24	0.35
O134A-O134	O134A	0134/	8	167.80	0.0024	0.101	1.44	0.23	0.35
0134-0136	0134/	0134	8	160.98	0.0025	0.107	1.47	0.24	0.36
0136-0138	0134	0138	8	59.68	0.0023	0.135	1.75	0.25	0.37
0137-0136	0137	0136	8	121.57	0.0035	0.133	1.12	0.23	0.37
0137-0130	0137	0009	8	84.73	0.0033	0.027	1.12	0.11	0.17
O138-0003	O138	0138	8	87.05	0.0054	0.010	1.02	0.26	0.09
0139A-0138 0139-0139A	0139A 0139	O138	6	48.58	0.0107	0.000	0.00	0.00	0.09
0139-0139A 0140-0139A	0139	O139A	8	160.12	0.0000	0.000	0.00	0.00	0.00
0140-0139A	0140	O139A	6	87.24	0.0000	0.000	0.00	0.00	0.00
0141-0140	0141	0140	8	164.07	0.0000	0.000	0.00	0.00	0.00
0142-0140	0142	0140	6	55.73	0.0000	0.000	0.00	0.00	0.00
0143-0142	0143	0142	6	109.53	0.0000	0.000	0.00	0.00	0.00
		1							0.00
OC03-V001	OC03	V001	21	13.56	0.0096	0.157	2.37	0.15	0.09

Model Results - Future Peak Dry Weather Flow (PDWF) Scenario

	From	То	Diameter	-	reactives the	Flow		Water Denth	
Pipe ID	ID	ID	(inches)	Length (feet)	Slope	(MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
R001-R802	R001	R802	8	251.84	0.0035	0.101	1.63	0.21	0.32
	1	+		1					
R002-R001	R002	R001	8	194.35	0.0024	0.101	1.44	0.23	0.35
R003-R002	R003	R002	8	359.63	0.0024	0.023	0.94	0.11	0.17
R004-R003	R004	R003	8	360.43	0.0024	0.018	0.88	0.10	0.15
R005-R004	R005	R004	8	361.12	0.0024	0.014	0.80	0.09	0.13
R006-R005	R006	R005	8	71.73	0.0335	0.009	1.79	0.04	0.06
R007-R006	R007	R006	8	349.15	0.0024	0.009	0.71	0.07	0.11
R008-R085	R008	R085	8	337.74	0.0025	0.005	0.59	0.05	0.08
R009-R008	R009	R008	8	351.82	0.0024	0.002	0.47	0.04	0.06
R010-R009	R010	R009	8	86.57	0.0029	0.000	0.30	0.02	0.02
R011-R804	R011	R804	15	399.04	0.0049	0.995	3.34	0.50	0.40
R012-R011	R012	R011	15	399.22	0.0029	0.995	2.75	0.58	0.47
R013-R012	R013	R012	15	397.24	0.0042	0.995	3.15	0.52	0.42
R014-R013	R014	R013	15	403.57	0.0042	0.995	3.15	0.53	0.42
R015-R014	R015	R014	15	399.25	0.0047	0.995	3.30	0.51	0.41
R016-S001	R016	S001	8	346.96	0.0019	0.004	0.51	0.05	0.08
R017-R002	R017	R002	8	290.61	0.0024	0.077	1.33	0.20	0.30
R018-R017	R018	R017	8	283.74	0.0024	0.062	1.24	0.18	0.27
R019-R018	R019	R018	8	350.31	0.0024	0.008	0.68	0.07	0.10
R020-R019	R020	R019	8	294.36	0.0024	0.004	0.55	0.05	0.07
R021-R017	R021	R017	8	355.97	0.0024	0.013	0.79	0.09	0.13
R022-R021	R022	R021	8	346.07	0.0024	0.009	0.72	0.07	0.11
R023-R022	R023	R022	8	342.82	0.0024	0.005	0.58	0.05	0.08
R024-R018	R024	R018	8	260.63	0.0024	0.051	1.18	0.16	0.25
R025-R024	R025	R024	8	272.39	0.0024	0.028	0.99	0.12	0.18
R026-R025	R026	R025	8	278.88	0.0024	0.018	0.88	0.10	0.15
R027-R026	R027	R026	8	276.07	0.0024	0.018	0.64	0.06	0.13
R027-R020	R027	R027	8	274.36	0.0024	0.007	0.55	0.05	0.03
							0.53		
R029-R028	R029	R028	8	273.49	0.0024	0.004		0.05	0.07
R030-R029	R030	R029	8	272.90	0.0024	0.002	0.44	0.03	0.05
R031-R024	R031	R024	8	299.50	0.0027	0.021	0.95	0.10	0.15
R032-R031	R032	R031	8	302.97	0.0024	0.018	0.87	0.10	0.15
R033-R032	R033	R032	8	245.20	0.0029	0.014	0.86	0.08	0.12
R034-R033	R034	R033	8	47.27	0.0021	0.012	0.74	0.08	0.13
R035-R034	R035	R034	8	286.00	0.0023	0.006	0.62	0.06	0.09
R036-R035	R036	R035	8	273.43	0.0025	0.006	0.63	0.06	0.09
R037-R036	R037	R036	8	286.46	0.0024	0.003	0.49	0.04	0.06
R038-R025	R038	R025	8	275.78	0.0024	0.008	0.67	0.07	0.10
R039-R038	R039	R038	8	276.39	0.0024	0.006	0.62	0.06	0.09
R040-R039	R040	R039	8	270.05	0.0024	0.004	0.55	0.05	0.07
R041-R026	R041	R026	8	275.80	0.0024	0.010	0.73	0.07	0.11
R042-R041	R042	R041	8	273.71	0.0024	0.008	0.67	0.07	0.10
R043-R042	R043	R042	8	274.41	0.0024	0.004	0.54	0.05	0.07
R044-N038	R044	N038	10	242.49	0.0012	0.075	1.01	0.22	0.26
R045-R044	R045	R044	10	242.06	0.0012	0.071	0.99	0.21	0.26
R046-R045	R046	R045	10	267.37	0.0008	0.043	0.73	0.19	0.23
R047-R046	R047	R046	10	61.50	0.0013	0.033	0.81	0.14	0.17
R048-R047	R048	R047	10	233.14	0.0012	0.021	0.71	0.12	0.14
R049-R048	R049	R048	10	57.28	0.0012	0.011	0.58	0.09	0.10
R050-R049	R050	R049	10	220.48	0.0012	0.002	0.32	0.03	0.04
R051-R045	R051	R045	8	319.96	0.0024	0.026	0.97	0.12	0.17
R052-R051	R052	R051	8	309.16	0.0024	0.020	0.89	0.10	0.15
R053-R052	R053	R052	8	311.92	0.0024	0.014	0.81	0.09	0.13
R054-R053	R054	R053	8	316.77	0.0021	0.010	0.69	0.08	0.12
R055-R054	R055	R054	8	326.35	0.0021	0.010	0.55	0.05	0.12
R056-R055	R056	R055	8	271.45	0.0024	0.004	0.62	0.03	0.04
11030 11033	11.030	1,1000	l o	271.43	0.0003	0.002	0.02	0.03	0.04

Model Results - Future Peak Dry Weather Flow (PDWF) Scenario

	Гиот		Piamatar		veather 110			Water Danth	
Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
D057 D054	ID DOEZ	ID DOEA	(inches)	(feet)	0.0024	(MGD)	(ft/s)	(feet)	0.07
R057-R051	R057	R051	8	203.40	0.0024	0.004	0.55	0.05	0.07
R058-R052	R058	R052	8	200.69	0.0029	0.004	0.59	0.05	0.07
R059-R053	R059	R053	8	200.67	0.0024	0.004	0.55	0.05	0.07
R060-R054	R060	R054	8	289.45	0.0214	0.004	1.17	0.03	0.04
R061-R083	R061	R083	8	345.01	0.0020	0.006	0.58	0.06	0.09
R062-R061	R062	R061	8	334.33	0.0020	0.006	0.58	0.06	0.09
R063-R087	R063	R087	8	178.43	0.0020	0.002	0.39	0.03	0.05
R064-R084	R064	R084	8	344.71	0.0020	0.008	0.65	0.07	0.10
R065-R064	R065	R064	8	335.34	0.0020	0.006	0.58	0.06	0.09
R066-R086	R066	R086	8	177.02	0.0020	0.002	0.39	0.03	0.05
R067-R048	R067	R048	8	348.37	0.0020	0.010	0.68	0.08	0.11
R068-R067	R068	R067	8	349.66	0.0020	0.008	0.63	0.07	0.10
R069-R068	R069	R068	8	349.57	0.0020	0.006	0.58	0.06	0.09
R070-R069	R070	R069	8	351.74	0.0020	0.003	0.50	0.05	0.07
R071-R049	R071	R049	8	348.46	0.0020	0.010	0.68	0.08	0.11
R072-R071	R072	R071	8	349.87	0.0020	0.008	0.64	0.07	0.10
R073-R072	R073	R072	8	351.64	0.0020	0.006	0.58	0.06	0.09
R074-R073	R074	R073	8	348.30	0.0020	0.003	0.50	0.05	0.07
R076-R075	R076	R075	8	37.90	0.0676	0.014	2.57	0.04	0.06
R077-R076	R077	R076	8	438.48	0.0038	0.005	0.67	0.05	0.07
R078-R077	R078	R077	8	287.88	0.0056	0.003	0.69	0.04	0.05
R079-R078	R079	R078	8	198.96	0.0040	0.003	0.62	0.04	0.06
R080-R076	R080	R076	8	233.86	0.0047	0.008	0.86	0.06	0.08
R081-R080	R081	R080	8	280.29	0.0034	0.006	0.72	0.06	0.08
R082-R081	R082	R081	8	350.63	0.0040	0.002	0.54	0.03	0.05
R083-R046	R083	R046	8	324.60	0.0020	0.008	0.64	0.07	0.11
R084-R047	R084	R047	8	352.68	0.0020	0.010	0.68	0.08	0.11
R085-R007	R085	R007	8	359.08	0.0023	0.007	0.65	0.06	0.09
R086-R065	R086	R065	8	338.68	0.0020	0.003	0.50	0.05	0.07
R087-R062	R087	R062	8	339.00	0.0020	0.003	0.50	0.05	0.07
R088-R074	R088	R074	8	155.65	0.0019	0.001	0.35	0.03	0.04
R089-R070	R089	R070	8	153.82	0.0020	0.001	0.36	0.03	0.04
R801A-R801	R801A	R801	8	331.58	0.0024	0.101	1.44	0.23	0.35
R801-R800	R801	R800	8	13.72	0.4110	1.096	17.81	0.21	0.32
R802-R801A	R802	R801A	8	329.36	0.0024	0.101	1.44	0.23	0.35
R803-R801	R803	R801	15	15.39	0.0325	0.995	6.59	0.31	0.25
R804-R803	R804	R803	15	399.94	0.0042	0.995	3.16	0.52	0.42
S001-W015	S001	W015	10	286.25	0.0022	0.005	0.56	0.05	0.06
S002-R015	S002	R015	15	226.30	0.0040	0.991	3.10	0.53	0.42
S003A-S003	S003A	S003	18	283.85	0.0017	0.827	2.13	0.56	0.37
S003-S002	S003	S002	18	228.18	0.0027	0.827	2.53	0.49	0.33
S004-S003A	S004	S003A	18	273.63	0.0030	0.796	2.60	0.47	0.31
S012-S002	S012	S002	10	330.72	0.0008	0.165	1.09	0.37	0.44
S013-S012	S013	S012	10	335.12	0.0010	0.161	1.16	0.35	0.42
S014-S013	S014	S013	10	319.75	0.0014	0.135	1.25	0.29	0.35
S015-S014	S015	S014	10	332.47	0.0016	0.117	1.26	0.26	0.31
S016-S015	S016	S015	10	325.11	0.0011	0.107	1.06	0.27	0.33
S017-S016	S017	S016	8	335.44	0.0025	0.013	0.79	0.08	0.13
S019-S018	S019	S018	8	121.45	0.0023	0.011	0.73	0.08	0.12
S020-S019	S020	S019	8	319.84	0.0024	0.008	0.67	0.07	0.10
S021-S812	S021	S812	8	332.92	0.0022	0.043	1.10	0.15	0.23
S022-S021	S022	S021	8	320.66	0.0018	0.029	0.91	0.13	0.20
S023-S022	S023	S022	8	319.57	0.0023	0.011	0.74	0.08	0.12
S024-S023	S024	S023	8	180.13	0.0018	0.005	0.55	0.06	0.09
S025-S022	S025	S022	8	327.51	0.0031	0.010	0.80	0.07	0.11
S026-S025	S026	S025	8	265.04	0.0325	0.004	1.41	0.03	0.04
	120-0	120-0		203.04	0.0020	3.004	1.71	0.03	3.04

Model Results - Future Peak Dry Weather Flow (PDWF) Scenario

Disc. ID	From	То	Diameter	Length		Flow	Velocity	Water Depth	4/5
Pipe ID	ID	ID	(inches)	(feet)	Slope	(MGD)	(ft/s)	(feet)	d/D
S027-S030	S027	S030	8	300.57	0.0045	0.006	0.77	0.05	0.07
S029-S014	S029	S014	8	288.81	0.0093	0.013	1.27	0.06	0.09
S030-S021	S030	S021	8	239.80	0.0022	0.007	0.63	0.06	0.10
S811-S016	S811	S016	8	320.57	0.0023	0.087	1.35	0.22	0.33
S812-S811	S812	S811	8	318.28	0.0018	0.086	1.24	0.23	0.35
S813-S812	S813	S812	8	334.70	0.0030	0.013	0.85	0.08	0.12
S814-S813	S814	S813	8	305.88	0.0024	0.007	0.66	0.06	0.10
S815-S814	S815	S814	8	17.31	0.0480	0.007	1.88	0.03	0.05
S817-S812	S817	S812	8	324.55	0.0020	0.023	0.88	0.12	0.17
S818-S817	S818	S817	8	249.78	0.0012	0.001	0.30	0.03	0.05
S819-S818	S819	S818	8	21.21	0.0009	0.001	0.28	0.03	0.05
S820-S817	S820	S817	8	328.59	0.0043	0.015	1.01	0.08	0.12
V001-V800	V001	V800	21	321.67	0.0033	0.159	1.64	0.20	0.11
V002-OC03	V002	OC03	8	40.60	0.2098	0.157	7.96	0.09	0.14
V003-V002	V003	V002	8	7.81	0.0077	0.117	2.27	0.19	0.28
V004-V002	V004	V002	8	252.13	0.0070	0.039	1.59	0.11	0.17
V004-V003	V004	V003	8	226.01	0.0020	0.117	1.41	0.26	0.40
V005-V004	V005	V004	8	377.67	0.0020	0.129	1.43	0.28	0.42
V006-V005	V006	V005	8	375.04	0.0020	0.125	1.42	0.28	0.41
V007-V006	V007	V006	8	275.46	0.0020	0.095	1.33	0.24	0.36
V008-V007	V008	V007	8	269.33	0.0020	0.087	1.30	0.23	0.34
V009-V008	V009	V008	8	269.11	0.0020	0.077	1.24	0.21	0.32
V010-V009	V010	V009	8	272.90	0.0016	0.013	0.69	0.09	0.14
V011-V010	V011	V010	8	241.98	0.0024	0.009	0.70	0.07	0.10
V012-V004	V012	V004	8	204.18	0.0079	0.025	1.45	0.09	0.13
V013-V012	V013	V012	8	202.31	0.0021	0.021	0.87	0.11	0.17
V014-V013	V014	V013	8	378.25	0.0020	0.013	0.73	0.09	0.13
V015-V014	V015	V014	8	347.44	0.0020	0.007	0.60		0.10
V016-V015	V016	V015	8	227.75	0.0015	0.005	0.51	0.06	0.09
V017-V016	V017	V016	8	237.50	0.0020	0.005	0.56	0.06	0.08
V018-V006	V018	V006	8	278.45	0.0023	0.025	0.95	0.12	0.18
V019-V018	V019	V018	8	273.69	0.0020	0.023	0.88	0.12	0.17
V020-V019	V020	V019	8	286.67	0.0020	0.020	0.84	0.11	0.16
V021-V020	V021	V020	8	107.40	0.0117	0.002	0.73	0.02	0.03
V022-V007	V022	V007	8	391.45	0.0020	0.006	0.59	0.06	0.09
V023-V022	V023	V022	8	388.78	0.0020	0.003	0.46	0.04	0.06
V024-V009	V024	V009	8	334.89	0.0020	0.062	1.17		0.29
V025-V010	V025	V010	8	213.17	0.0024	0.003	0.52	0.04	0.06
V027-OC07	V027	OC07	8	363.13	0.0181	0.101	2.95	0.14	0.21
V028-V027	V028	V027	8	392.19	0.0021	0.096	1.36	0.23	0.35
V029-OC04	V029	OC04	8	17.31	0.2899	0.121	8.26		0.12
V030-V029	V030	V029	8	169.97	0.0125	0.081	2.43		0.21
V031-V030	V031	V030	8	301.99	0.0020	0.045	1.07	0.16	0.24
V032-V031	V032	V031	8	525.05	0.0022	0.022	0.90		0.17
V033-V013	V033	V013	8	197.00	0.0023	0.005	0.59	0.05	0.08
V034-V033	V034	V033	8	198.55	0.0020	0.004	0.53	0.05	0.08
V035-V014	V035	V014	8	183.83	0.0026	0.004	0.55	0.04	0.07
V036-V020	V036	V020	8	279.62	0.0024	0.015	0.82	0.09	0.14
V800-Y812	V800	Y812	21	671.98	0.0016	0.159	1.26	0.24	0.14
V804-V008	V804	V008	8	392.85	0.0044	0.008	0.85	0.06	0.09
V806-V024	V806	V024	8	367.22	0.0045	0.059	1.54	0.15	0.23
V808-V806	V808	V806	8	158.48	0.0080	0.027	1.49	0.09	0.13
V809A-V808	V809A	V808	8	295.92	0.0030	0.027	1.06	0.11	0.17
V809-V809A	V809	V809A	8	18.49	0.0465	0.027	2.77	0.06	0.09
V812-V809	V812	V809	8	204.71	0.0027	0.027	1.02	0.12	0.17
V813-V812	V813	V812	8	381.88	0.0040	0.022	1.11	0.10	0.14

Model Results - Future Peak Dry Weather Flow (PDWF) Scenario

Pipe ID	7 0.25 2 0.64 1 0.62 1 0.62 6 0.56 6 0.55 8 0.27 8 0.21 1 0.25 4 0.20 5 0.18 7 0.09
W002-OCO9 W002 OCO9 8 104.09 0.0549 0.258 5.74 0.1 W003-W002 W003 W002 8 363.56 0.0020 0.256 1.69 0.4 W004-W003 W004 W003 8 359.52 0.0020 0.247 1.68 0.4 W005-W004 W005 W004 8 338.50 0.0020 0.247 1.68 0.4 W006-OCO9 W006 OCO9 10 335.95 0.0017 0.348 1.73 0.4 W007-W006 W007 W006 10 328.62 0.0016 0.339 1.70 0.4 W008-W007 W008 W007 10 332.15 0.0016 0.331 1.66 0.4 W010-W008 W010 W008 8 164.00 0.048 0.085 1.75 0.1 W011-W010 W011 10 336.40 0.0016 0.078 1.13 0.2 W013-W012 W013 <th>2</th>	2
W003-W002 W003 W002 8 363.56 0.0020 0.256 1.69 0.4 W004-W003 W004 W003 8 359.52 0.0020 0.247 1.68 0.4 W005-W004 W005 W004 8 338.50 0.0020 0.247 1.68 0.4 W006-0C09 W006 OC09 10 335.95 0.0017 0.348 1.73 0.4 W007-W006 W007 W006 10 328.62 0.0016 0.339 1.70 0.4 W008-W007 W008 W007 10 332.15 0.0016 0.331 1.66 0.4 W010-W008 W010 W008 8 164.00 0.0048 0.085 1.75 0.1 W011-W010 W011 W010 10 172.33 0.0031 0.078 1.13 0.2 W013-W012 W011 10 336.40 0.0016 0.078 1.13 0.2 W013-W013 W013 </th <th>2</th>	2
W004-W003 W004 W003 8 359.52 0.0020 0.247 1.68 0.4 W005-W004 W005 W004 8 338.50 0.0020 0.247 1.68 0.4 W006-OC09 W006 OC09 10 335.95 0.0017 0.348 1.73 0.4 W007-W006 W007 W006 10 328.62 0.0016 0.339 1.70 0.4 W008-W007 W008 W007 10 332.15 0.0016 0.331 1.66 0.4 W010-W008 W010 W008 8 164.00 0.0048 0.085 1.75 0.1 W011-W010 W011 W010 10 172.33 0.0031 0.078 1.43 0.1 W012-W011 W012 W011 10 336.40 0.0016 0.078 1.13 0.2 W013-W013 W013 8 339.38 0.0020 0.032 0.96 0.1 W014-W013 W013 </td <td>1</td>	1
W005-W004 W005 W004 8 338.50 0.0020 0.247 1.68 0.4 W006-OC09 W006 OC09 10 335.95 0.0017 0.348 1.73 0.4 W007-W006 W007 W006 10 328.62 0.0016 0.339 1.70 0.4 W008-W007 W008 W007 10 332.15 0.0016 0.331 1.66 0.4 W010-W008 W010 W008 8 164.00 0.0048 0.085 1.75 0.1 W011-W010 W011 W010 10 172.33 0.0031 0.078 1.43 0.1 W012-W011 W012 W011 10 336.40 0.0016 0.078 1.13 0.2 W013-W012 W013 8 339.38 0.0020 0.032 0.96 0.1 W014-W013 W013 10 85.39 0.0016 0.041 0.94 0.1 W015-W014 W015 W014 </td <td>1</td>	1
W006-OC09 W006 OC09 10 335.95 0.0017 0.348 1.73 0.4 W007-W006 W007 W006 10 328.62 0.0016 0.339 1.70 0.4 W008-W007 W008 W007 10 332.15 0.0016 0.331 1.66 0.4 W010-W008 W010 W008 8 164.00 0.0048 0.085 1.75 0.1 W011-W010 W011 W010 10 172.33 0.0031 0.078 1.43 0.1 W012-W011 W012 W011 10 336.40 0.0016 0.078 1.13 0.2 W013-W012 W013 W013 8 339.38 0.0020 0.032 0.96 0.1 W014-W013 W014 W013 10 85.39 0.0016 0.041 0.94 0.1 W015-W014 W015 W014 10 333.82 0.0016 0.009 0.60 0.0 W016-W008<	6 0.56 6 0.55 8 0.27 8 0.21 1 0.25 4 0.20 5 0.18 7 0.09
W007-W006 W007 W006 10 328.62 0.0016 0.339 1.70 0.4 W008-W007 W008 W007 10 332.15 0.0016 0.331 1.66 0.4 W010-W008 W010 W008 8 164.00 0.0048 0.085 1.75 0.1 W011-W010 W011 10 172.33 0.0031 0.078 1.43 0.1 W012-W011 W012 W011 10 336.40 0.0016 0.078 1.13 0.2 W013A-W013 W013 8 339.38 0.0020 0.032 0.96 0.1 W014-W013 W014 W013 10 245.70 0.0016 0.041 0.94 0.1 W015-W014 W015 W014 10 333.82 0.0016 0.009 0.60 0.0 W016-W008 W016 W08 8 315.15 0.0096 0.075 2.16 0.1 W017-W016 W017 W016<	6 0.55 6 0.55 8 0.27 8 0.21 1 0.25 4 0.20 5 0.18 7 0.09
W008-W007 W008 W007 10 332.15 0.0016 0.331 1.66 0.4 W010-W008 W010 W008 8 164.00 0.0048 0.085 1.75 0.1 W011-W010 W011 W010 10 172.33 0.0031 0.078 1.43 0.1 W012-W011 W012 W011 10 336.40 0.0016 0.078 1.13 0.2 W013A-W013 W013 8 339.38 0.0020 0.032 0.96 0.1 W013-W012 W013 W012 10 245.70 0.0016 0.041 0.94 0.1 W014-W013 W014 W013 10 85.39 0.0016 0.009 0.61 0.0 W015-W014 W015 W014 10 333.82 0.0016 0.009 0.60 0.0 W016-W008 W016 8 315.15 0.0096 0.075 2.16 0.1 W018-W017 W018 8 <td>6 0.55 8 0.27 8 0.21 1 0.25 4 0.20 5 0.18 7 0.09</td>	6 0.55 8 0.27 8 0.21 1 0.25 4 0.20 5 0.18 7 0.09
W010-W008 W010 W008 8 164.00 0.0048 0.085 1.75 0.1 W011-W010 W011 W010 10 172.33 0.0031 0.078 1.43 0.1 W012-W011 W012 W011 10 336.40 0.0016 0.078 1.13 0.2 W013A-W013 W013 8 339.38 0.0020 0.032 0.96 0.1 W013-W012 W013 10 245.70 0.0016 0.041 0.94 0.1 W014-W013 W014 W013 10 85.39 0.0016 0.009 0.61 0.0 W015-W014 W015 W014 10 333.82 0.0016 0.009 0.60 0.0 W016-W008 W016 W008 8 315.15 0.0096 0.075 2.16 0.1 W017-W016 W017 W016 8 191.32 0.0035 0.069 1.47 0.1 W019-W018 W019 W018 </td <td>8 0.27 8 0.21 1 0.25 4 0.20 5 0.18 7 0.09</td>	8 0.27 8 0.21 1 0.25 4 0.20 5 0.18 7 0.09
W011-W010 W011 W010 10 172.33 0.0031 0.078 1.43 0.1 W012-W011 W012 W011 10 336.40 0.0016 0.078 1.13 0.2 W013A-W013 W013 8 339.38 0.0020 0.032 0.96 0.1 W013-W012 W013 W012 10 245.70 0.0016 0.041 0.94 0.1 W014-W013 W014 W013 10 85.39 0.0016 0.009 0.61 0.0 W015-W014 W015 W014 10 333.82 0.0016 0.009 0.60 0.0 W016-W008 W016 W008 8 315.15 0.0096 0.075 2.16 0.1 W017-W016 W017 W016 8 191.32 0.0035 0.069 1.47 0.1 W019-W018 W017 8 138.34 0.0038 0.066 1.50 0.1 W020-W019 W020 W019 </td <td>8 0.21 1 0.25 4 0.20 5 0.18 7 0.09</td>	8 0.21 1 0.25 4 0.20 5 0.18 7 0.09
W012-W011 W012 W011 10 336.40 0.0016 0.078 1.13 0.2 W013A-W013 W013A W013 8 339.38 0.0020 0.032 0.96 0.1 W013-W012 W013 W012 10 245.70 0.0016 0.041 0.94 0.1 W014-W013 W014 W013 10 85.39 0.0016 0.009 0.61 0.0 W015-W014 W015 W014 10 333.82 0.0016 0.009 0.60 0.0 W016-W008 W016 W008 8 315.15 0.0096 0.075 2.16 0.1 W017-W016 W017 W016 8 191.32 0.0035 0.069 1.47 0.1 W018-W017 W018 W017 8 138.34 0.0038 0.066 1.50 0.1 W020-W019 W020 W018 8 144.93 0.0020 0.061 1.16 0.1 W021-W020 </td <td>1 0.25 4 0.20 5 0.18 7 0.09</td>	1 0.25 4 0.20 5 0.18 7 0.09
W013A-W013 W013A W013 8 339.38 0.0020 0.032 0.96 0.1 W013-W012 W013 W012 10 245.70 0.0016 0.041 0.94 0.1 W014-W013 W014 W013 10 85.39 0.0016 0.009 0.61 0.0 W015-W014 W015 W014 10 333.82 0.0016 0.009 0.60 0.0 W016-W008 W016 W008 8 315.15 0.0096 0.075 2.16 0.1 W017-W016 W017 W016 8 191.32 0.0035 0.069 1.47 0.1 W018-W017 W018 W017 8 138.34 0.0038 0.066 1.50 0.1 W019-W018 W019 W018 8 144.93 0.0020 0.061 1.16 0.1 W020-W019 W020 W019 8 282.09 0.0021 0.036 1.02 0.1 W021-W020 <td>4 0.20 5 0.18 7 0.09</td>	4 0.20 5 0.18 7 0.09
W013-W012 W013 W012 10 245.70 0.0016 0.041 0.94 0.1 W014-W013 W014 W013 10 85.39 0.0016 0.009 0.61 0.0 W015-W014 W015 W014 10 333.82 0.0016 0.009 0.60 0.0 W016-W008 W016 W008 8 315.15 0.0096 0.075 2.16 0.1 W017-W016 W017 W016 8 191.32 0.0035 0.069 1.47 0.1 W018-W017 W018 W017 8 138.34 0.0038 0.066 1.50 0.1 W019-W018 W019 W018 8 144.93 0.0020 0.061 1.16 0.1 W020-W019 W020 W019 8 282.09 0.0021 0.036 1.02 0.1 W021-W020 W021 W020 8 316.64 0.0019 0.019 0.81 0.1 W022-W021	5 0.18 7 0.09
W014-W013 W014 W013 10 85.39 0.0016 0.009 0.61 0.0 W015-W014 W015 W014 10 333.82 0.0016 0.009 0.60 0.0 W016-W008 W016 W008 8 315.15 0.0096 0.075 2.16 0.1 W017-W016 W017 W016 8 191.32 0.0035 0.069 1.47 0.1 W018-W017 W018 138.34 0.0038 0.066 1.50 0.1 W019-W018 W019 W018 8 144.93 0.0020 0.061 1.16 0.1 W020-W019 W020 W019 8 282.09 0.0021 0.036 1.02 0.1 W021-W020 W021 W020 8 316.64 0.0019 0.019 0.81 0.1 W022-W021 W022 W021 8 175.83 0.0021 0.009 0.66 0.0 W023-W019 W023 W019 <td>7 0.09</td>	7 0.09
W015-W014 W015 W014 10 333.82 0.0016 0.009 0.60 0.0 W016-W008 W016 W008 8 315.15 0.0096 0.075 2.16 0.1 W017-W016 W017 W016 8 191.32 0.0035 0.069 1.47 0.1 W018-W017 W018 W017 8 138.34 0.0038 0.066 1.50 0.1 W019-W018 W019 W018 8 144.93 0.0020 0.061 1.16 0.1 W020-W019 W020 W019 8 282.09 0.0021 0.036 1.02 0.1 W021-W020 W021 W020 8 316.64 0.0019 0.019 0.81 0.1 W022-W021 W022 W021 8 175.83 0.0021 0.009 0.66 0.0 W023-W019 W023 W019 8 297.30 0.0020 0.011 0.70 0.0 W024-W023	
W016-W008 W016 W008 8 315.15 0.0096 0.075 2.16 0.1 W017-W016 W017 W016 8 191.32 0.0035 0.069 1.47 0.1 W018-W017 W018 138.34 0.0038 0.066 1.50 0.1 W019-W018 W019 W018 144.93 0.0020 0.061 1.16 0.1 W020-W019 W020 W019 8 282.09 0.0021 0.036 1.02 0.1 W021-W020 W021 W020 8 316.64 0.0019 0.019 0.81 0.1 W022-W021 W022 W021 8 175.83 0.0021 0.009 0.66 0.0 W023-W019 W023 W019 8 297.30 0.0020 0.011 0.70 0.0 W024-W023 W024 W023 8 269.07 0.0020 0.006 0.59 0.0 W025-W024 W025 W024 8 <td>7 0.09</td>	7 0.09
W017-W016 W017 W016 8 191.32 0.0035 0.069 1.47 0.1 W018-W017 W018 W017 8 138.34 0.0038 0.066 1.50 0.1 W019-W018 W019 W018 8 144.93 0.0020 0.061 1.16 0.1 W020-W019 W020 W019 8 282.09 0.0021 0.036 1.02 0.1 W021-W020 W021 W020 8 316.64 0.0019 0.019 0.81 0.1 W022-W021 W022 W021 8 175.83 0.0021 0.009 0.66 0.0 W023-W019 W023 W019 8 297.30 0.0020 0.011 0.70 0.0 W024-W023 W024 W023 8 269.07 0.0020 0.006 0.59 0.0 W025-W024 W025 W024 8 296.38 0.0020 0.003 0.47 0.0	
W018-W017 W018 W017 8 138.34 0.0038 0.066 1.50 0.1 W019-W018 W019 W018 8 144.93 0.0020 0.061 1.16 0.1 W020-W019 W020 W019 8 282.09 0.0021 0.036 1.02 0.1 W021-W020 W021 W020 8 316.64 0.0019 0.019 0.81 0.1 W022-W021 W022 W021 8 175.83 0.0021 0.009 0.66 0.0 W023-W019 W023 W019 8 297.30 0.0020 0.011 0.70 0.0 W024-W023 W024 W023 8 269.07 0.0020 0.006 0.59 0.0 W025-W024 W025 W024 8 296.38 0.0020 0.003 0.47 0.0	
W019-W018 W019 W018 8 144.93 0.0020 0.061 1.16 0.1 W020-W019 W020 W019 8 282.09 0.0021 0.036 1.02 0.1 W021-W020 W021 W020 8 316.64 0.0019 0.019 0.81 0.1 W022-W021 W022 W021 8 175.83 0.0021 0.009 0.66 0.0 W023-W019 W023 W019 8 297.30 0.0020 0.011 0.70 0.0 W024-W023 W024 W023 8 269.07 0.0020 0.006 0.59 0.0 W025-W024 W025 W024 8 296.38 0.0020 0.003 0.47 0.0	
W020-W019 W020 W019 8 282.09 0.0021 0.036 1.02 0.1 W021-W020 W021 W020 8 316.64 0.0019 0.019 0.81 0.1 W022-W021 W022 W021 8 175.83 0.0021 0.009 0.66 0.0 W023-W019 W023 W019 8 297.30 0.0020 0.011 0.70 0.0 W024-W023 W024 W023 8 269.07 0.0020 0.006 0.59 0.0 W025-W024 W025 W024 8 296.38 0.0020 0.003 0.47 0.0	
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W022-W021 W022 W021 8 175.83 0.0021 0.009 0.66 0.0 W023-W019 W023 W019 8 297.30 0.0020 0.011 0.70 0.0 W024-W023 W024 W023 8 269.07 0.0020 0.006 0.59 0.0 W025-W024 W025 W024 8 296.38 0.0020 0.003 0.47 0.0	
W023-W019 W023 W019 8 297.30 0.0020 0.011 0.70 0.0 W024-W023 W024 W023 8 269.07 0.0020 0.006 0.59 0.0 W025-W024 W025 W024 8 296.38 0.0020 0.003 0.47 0.0	
W024-W023 W024 W023 8 269.07 0.0020 0.006 0.59 0.0 W025-W024 W025 W024 8 296.38 0.0020 0.003 0.47 0.0	
W025-W024 W025 W024 8 296.38 0.0020 0.003 0.47 0.0	8 0.12
	6 0.09
141006 141006 141004 1 100 00 1 100 00 1 100 00 1 100 00 1 100 00	4 0.06
W026-W024 W026 W024 8 133.78 0.0027 0.003 0.54 0.0	4 0.06
W027-W009 W027 W009 8 306.80 0.0023 0.171 1.63 0.3	2 0.47
W028-W027 W028 W027 8 307.72 0.0020 0.169 1.53 0.3	3 0.49
W029-W028 W029 W028 8 182.55 0.0051 0.169 2.16 0.2	5 0.38
W030-W029 W030 W029 8 77.43 0.0021 0.015 0.77 0.0	9 0.14
W031-W030 W031 W030 8 280.12 0.0020 0.013 0.73 0.0	9 0.13
W032-W031 W032 W031 8 329.52 0.0020 0.009 0.67 0.0	7 0.11
W033-W032 W033 W032 8 233.99 0.0020 0.007 0.62 0.0	7 0.10
W034-W033 W034 W033 8 330.81 0.0020 0.004 0.51 0.0	5 0.07
W035-W034 W035 W034 8 66.47 0.0022 0.002 0.43 0.0	4 0.05
W036-W034 W036 W034 8 83.81 0.0020 0.002 0.41 0.0	3 0.05
W037-W029 W037 W029 8 140.65 0.0022 0.153 1.56 0.3	0.45
W038-W037 W038 W037 8 276.97 0.0020 0.096 1.32 0.2	4 0.36
W039-W038 W039 W038 8 273.40 0.0020 0.096 1.33 0.2	4 0.36
W040-W039 W040 W039 8 372.46 0.0020 0.090 1.30 0.2	3 0.35
W041-W040 W041 W040 8 247.19 0.0020 0.082 1.26 0.2	2 0.33
W042-W041 W042 W041 8 300.53 0.0020 0.080 1.26 0.2	2 0.32
W043-W042 W043 W042 8 108.50 0.0369 0.080 3.53 0.1	0.16
W044-W039 W044 W039 8 190.68 0.0039 0.003 0.59 0.0	4 0.05
W045-W040 W045 W040 8 147.93 0.0020 0.005 0.55 0.0	5 0.08
W046-W045 W046 W045 8 236.00 0.0020 0.004 0.51 0.0	5 0.07
W047-W037 W047 W037 8 176.63 0.0020 0.055 1.13 0.1	8 0.27
W048-W047 W048 W047 8 346.48 0.0020 0.053 1.13 0.1	8 0.26
W049-W048 W049 W048 8 347.76 0.0020 0.050 1.10 0.1	7 0.26
W050-W049 W050 W049 8 201.18 0.0020 0.009 0.67 0.0	7 0.11
W051-W050 W051 W050 8 295.25 0.0020 0.008 0.63 0.0	7 0.10
W052-W051 W052 W051 8 291.54 0.0020 0.004 0.53 0.0	5 0.08
W053-W052 W053 W052 8 82.71 0.0031 0.001 0.42 0.0	
W054-W049 W054 W049 8 134.84 0.0045 0.037 1.35 0.1	2 0.18
W054-W049 W054 W049 8 134.84 0.0045 0.037 1.35 0.1 W055-W054 W055 W054 8 350.69 0.0023 0.025 0.94 0.1	
	2 0.18

Model Results - Future Peak Dry Weather Flow (PDWF) Scenario

	From		Piamatar		reactive, 170			Water Danth	
Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
V004 V006	ID	ID	(inches)	(feet)	0.0350	(MGD)	(ft/s)	(feet)	0.07
Y001-Y806	Y001	Y802	8	323.27	0.0258	0.012	1.77	0.05	0.07
Y002-Y022	Y002	Y022	8	186.17	0.0047	0.012	0.98	0.07	0.10
Y003-Y002	Y003	Y002	8	129.16	0.0054	0.012	1.03	0.07	0.10
Y004-Y003	Y004	Y003	8	203.18	0.0053	0.012	1.02	0.07	0.10
Y005-Y806	Y005	Y806	8	337.49	0.0027	0.125	1.58	0.25	0.38
Y006-Y005	Y006	Y005	8	339.60	0.0028	0.125	1.61	0.25	0.38
Y007-Y006	Y007	Y006	8	150.72	0.0029	0.107	1.56	0.23	0.34
Y008-Y007	Y008	Y007	8	186.66	0.0030	0.090	1.51	0.21	0.31
Y009-Y008	Y009	Y008	8	225.62	0.0035	0.090	1.58	0.20	0.30
Y010-Y009	Y010	Y009	8	101.96	0.0029	0.029	1.08	0.12	0.18
Y011-Y010	Y011	Y010	8	204.62	0.0029	0.029	1.08	0.12	0.18
Y012-Y011	Y012	Y011	8	140.10	0.0031	0.029	1.09	0.12	0.18
Y013-Y810	Y013	Y810	8	362.09	0.0031	0.042	1.22	0.14	0.21
Y014-Y013	Y014	Y013	8	345.76	0.0036	0.025	1.11	0.11	0.16
Y015-V030	Y015	V030	8	208.01	0.0202	0.014	1.70	0.05	0.08
Y016-Y015	Y016	Y015	8	218.23	0.0024	0.009	0.71	0.07	0.11
Y017-V031	Y017	V031	8	217.44	0.0075	0.013	1.17	0.06	0.10
Y018-Y017	Y018	Y017	8	207.25	0.0016	0.010	0.64	0.08	0.12
Y019-V032	Y019	V032	8	442.51	0.0074	0.014	1.19	0.07	0.10
Y020-V029	Y020	V029	8	25.90	0.0981	0.040	4.06	0.06	0.09
Y021-Y019	Y021	Y019	8	36.84	0.0312	0.006	1.54	0.03	0.05
Y022-Y001	Y022	Y001	8	86.46	0.0063	0.012	1.08	0.06	0.10
Y023-Y810	Y023	Y810	8	273.34	0.0018	0.000	0.00	0.00	0.00
Y024-Y014	Y024	Y014	8	296.48	0.0033	0.025	1.08	0.11	0.16
Y810-Y808	Y810	Y808	8	326.58	0.0026	0.056	1.26	0.17	0.25
Y811-Y809	Y811	Y809	12	148.65	0.0078	0.148	2.34	0.18	0.18
Z001-Z831	Z001	Z831	8	91.85	0.0072	0.094	2.08	0.17	0.25
Z002A-Z831	Z002A	Z831	10	394.36	0.0030	0.085	1.44	0.19	0.22
Z002-Z001	Z002	Z001	8	301.97	0.0017	0.094	1.24	0.25	0.37
Z003-Z002	Z003	Z002	8	62.09	0.0027	0.082	1.42	0.20	0.30
Z004-Z002A	Z004	Z002A	10	319.44	0.0020	0.085	1.25	0.21	0.25
Z004-Z003	Z004	Z003	8	251.02	0.0019	0.070	1.18	0.21	0.31
Z005-Z004	Z005	Z004	8	287.84	0.0020	0.052	1.11	0.17	0.26
Z006-Z005	Z006	Z005	8	273.44	0.0021	0.048	1.10	0.17	0.25
Z007-Z029	Z007	Z029	8	230.35	0.0020	0.120	1.41	0.27	0.40
Z008-Z007	Z008	Z007	8	357.48	0.0022	0.120	1.45	0.26	0.39
Z009-Z008	Z009	Z008	8	223.11	0.0021	0.107	1.38	0.25	0.38
Z010-Z009	Z010	Z009	8	112.84	0.0039	0.096	1.68	0.20	0.30
Z011-Z010	Z011	Z010	8	425.76	0.0040	0.096	1.69	0.20	0.30
Z012-Z011	Z012	Z011	8	18.21	0.0033	0.096	1.58	0.21	0.31
Z015-Z028	Z015	Z028	12	153.83	0.0026	0.148	1.58	0.24	0.24
Z016-Z800	Z016	Z800	8	303.39	0.0045	0.056	1.51	0.15	0.22
Z017-Z016	Z017	Z016	8	290.36	0.0003	0.004	0.28	0.08	0.12
Z018-Z004	Z018	Z004	8	333.81	0.0020	0.102	1.33	0.25	0.37
Z019-Z018	Z019	Z018	8	355.97	0.0023	0.064	1.24	0.19	0.28
Z020-Z019	Z020	Z019	8	289.86	0.0020	0.060	1.16	0.19	0.28
Z021-Z022	Z021	Z022	8	221.72	0.0020	0.127	1.42	0.28	0.42
Z022-Z023	Z022	Z023	8	217.99	0.0015	0.130	1.30	0.30	0.46
Z023-Z024	Z023	Z024	12	22.53	0.0044	0.130	1.85	0.20	0.20
Z024-Z015	Z024	Z015	12	145.53	0.0027	0.142	1.58	0.23	0.23
Z025-Z015	Z025	Z015	6	69.07	0.0012	0.006	0.50	0.07	0.15
Z026-Z025	Z026	Z025	6	361.94	0.0012	0.006	0.50	0.07	0.15
Z029-Z021	Z029	Z021	8	230.68	0.0012	0.120	1.40	0.27	0.40
Z029-Z030	Z028	Z030	12	129.23	0.0027	0.120	1.61	0.24	0.40
Z030-Z031	Z030	Z031	12	165.25	0.0027	0.148	3.30	0.24	0.24
Z030-Z031 Z031-Y811	Z030	Y811	12	241.87	0.0203	0.148	2.28	0.14	0.14
2001 1011	12031	1.011	14	241.07	0.0073	0.140	2.20	0.13	0.19

Model Results - Future Peak Wet Weather Flow (PWWF) Scenario

	Fuere		Piameter		veather 110			Matau Danth	
Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
	ID	ID	(inches)	(feet)	2 22 42	(MGD)	(ft/s)	(feet)	
B001-C001	B001	C001	10	279.79	0.0012	0.071	0.99	0.21	0.25
B002-B001	B002	B001	10	135.29	0.0012	0.065	0.96	0.20	0.25
B003-B002	B003	B002	10	122.75	0.0012	0.060	0.95	0.20	0.23
B004-B003	B004	B003	10	137.42	0.0012	0.045	0.88	0.17	0.20
B005-B004	B005	B004	10	131.33	0.0012	0.029	0.77	0.14	0.16
B006-B005	B006	B005	10	127.26	0.0012	0.022	0.70	0.12	0.14
B007-B006	B007	B006	10	259.35	0.0012	0.008	0.52	0.07	0.09
B008-B007	B008	B007	8	269.59	0.0026	0.008	0.70	0.06	0.10
B009-B008	B009	B008	8	259.91	0.0020	0.004	0.53	0.05	0.08
B010-B009	B010	B009	8	89.19	0.0020	0.001	0.35	0.03	0.04
B011-B006	B011	B006	8	270.78	0.0019	0.008	0.64	0.07	0.11
B012-B011	B012	B011	8	260.24	0.0020	0.005	0.55	0.06	0.08
B013-B012	B013	B012	8	200.15	0.0020	0.002	0.39	0.03	0.05
B014-B004	B014	B004	8	270.76	0.0020	0.016	0.78	0.10	0.14
B015-B014	B015	B014	8	261.26	0.0020	0.012	0.73	0.09	0.13
B016-B015	B016	B015	8	214.26	0.0024	0.005	0.60	0.05	0.08
B017-B016	B017	B016	8	198.07	0.0020	0.004	0.51	0.05	0.07
B018-B015	B018	B015	8	179.03	0.0020	0.002	0.39	0.03	0.05
B019-H022	B019	H022	10	176.55	0.0020	0.191	1.59	0.31	0.37
B020-B045	B020	B045	8	273.36	0.0032	0.172	1.84	0.29	0.43
B021-B020	B021	B020	8	327.92	0.0032	0.152	1.79	0.27	0.40
B022-B021	B022	B021	8	124.17	0.0038	0.049	1.37	0.14	0.22
B023-B022	B023	B022	8	192.07	0.0041	0.029	1.21	0.11	0.16
B024-B023	B024	B023	8	65.73	0.0037	0.007	0.75	0.06	0.08
B025-B024	B025	B024	8	243.62	0.0040	0.006	0.74	0.05	0.08
B026A-B026	B026A	B026	8	48.20	0.0027	0.004	0.58	0.05	0.07
B026-B025	B026	B025	8	17.74	0.0034	0.004	0.62	0.04	0.07
B028-B022	B028	B022	8	262.11	0.0072	0.020	1.32	0.08	0.12
B029-B028	B029	B028	8	207.80	0.0040	0.008	0.80	0.06	0.09
B030-B029	B030	B029	8	214.83	0.0040	0.005	0.72	0.05	0.07
B031-B028	B031	B028	8	259.05	0.0048	0.010	0.94	0.06	0.10
B032-B031	B032	B031	8	255.69	0.0042	0.008	0.82	0.06	0.09
B033-B032	B033	B032	8	249.92	0.0040	0.004	0.66	0.04	0.06
B034-C017	B034	C017	8	292.13	0.0023	0.022	0.90	0.11	0.16
B035-B034	B035	B034	8	255.96	0.0020	0.012	0.72	0.08	0.13
B036-B035	B036	B035	8	349.45	0.0020	0.005	0.56	0.06	0.09
B037-B034	B037	B034	8	355.71	0.0027	0.008	0.70	0.06	0.10
B038-B035	B038	B035	8	166.70	0.0024	0.004	0.57	0.05	0.07
B039-B002	B039	B002	8	241.67	0.0020	0.005	0.54	0.06	0.08
B040-B039	B040	B039	8	97.74	0.0024	0.001	0.40	0.03	0.04
B041-B019	B041	B019	10	261.62	0.0034	0.016	0.93	0.08	0.10
B045-B019	B045	B019	8	55.20	0.0011	0.175	1.23	0.40	0.60
C001-I017A	C001	I017A	15	299.35	0.0015	0.700	1.96	0.58	0.46
C002-C003	C002	C003	8	248.27	0.0131	0.011	1.34	0.05	0.08
C003-C005	C003	C005	8	352.17	0.0024	0.085	1.36	0.21	0.32
C004-C058	C004	C058	12	10.63	0.0085	0.000	0.00	0.00	0.00
C004-I044	C004	1044	12	338.54	0.0020	0.249	1.68	0.33	0.33
C005-C004	C005	C004	8	350.88	0.0024	0.085	1.37	0.21	0.32
C006-C004	C006	C004	12	338.27	0.0040	0.152	1.86	0.22	0.22
C007-I102	C007	1102	18	315.96	0.0015	1.720	2.47	0.88	0.59
C008-C007	C008	C007	15	611.45	0.0026	1.720	3.01	0.85	0.68
C009-C008	C009	C008	15	16.65	0.0024	1.720	2.47	0.56	0.45
C010-D012	C010	D012	8	291.77	0.0049	0.038	1.39	0.12	0.18
C011-C010	C011	C010	8	299.80	0.0048	0.031	1.30	0.11	0.16
C012A-C001	C012A	C001	12	236.19	0.0012	0.257	1.40	0.39	0.39
C012-C001	C012	C001	12	261.24	0.0015	0.359	1.66	0.44	0.44
3022 0001	1	10001		201.24	0.0010	3.333	1.00	0.77	5.74

Model Results - Future Peak Wet Weather Flow (PWWF) Scenario

Pipe ID			Diameter	Length		Flow	Velocity	Water Depth	
	ID	ID	(inches)	(feet)	Slope	(MGD)	(ft/s)	(feet)	d/D
C013A-C012A C	C013A	C012A	10	274.22	0.0010	0.257	1.29	0.46	0.55
C013-C012 C	013	C012	12	240.25	0.0013	0.353	1.55	0.46	0.46
C014-C013 C	014	C013	12	130.42	0.0015	0.352	1.67	0.43	0.43
C015-C014 C	015	C014	12	153.36	0.0015	0.352	1.66	0.44	0.44
C016-C015 C	016	C015	12	185.94	0.0015	0.352	1.66	0.44	0.44
C017-C016 C	017	C016	12	220.85	0.0015	0.350	1.65	0.44	0.44
C019-C013A C	019	C013A	8	328.40	0.0116	0.060	2.16	0.12	0.18
	020	C019	8	252.66	0.0137	0.006	1.17	0.04	0.06
C021-C019 C	021	C019	8	240.65	0.0040	0.039	1.31	0.13	0.19
	022	C021	8	151.67	0.0039	0.035	1.25	0.12	0.18
C023-C022 C	023	C022	8	164.99	0.0089	0.005	0.94	0.04	0.06
	024	C022	8	227.08	0.0040	0.026	1.16	0.10	0.16
	026	C013A	12	285.83	0.0011	0.197	1.24	0.35	0.35
	027	C026	8	244.16	0.0043	0.189	2.10	0.28	0.42
C028-C027 C	028	C027	8	262.35	0.0040	0.169	1.98	0.27	0.40
	029	C028	8	263.41	0.0040	0.135	1.86	0.24	0.36
C030-C029 C	030	C029	8	257.33	0.0035	0.073	1.50	0.18	0.27
-	031	C030	8	43.34	0.1324	0.069	5.29	0.07	0.11
-	032	C031	8	143.13	0.0037	0.060	1.44	0.16	0.24
	033	C032	8	109.37	0.0038	0.059	1.44	0.16	0.24
	034	C033	8	172.49	0.0035	0.057	1.39	0.16	0.24
-	035	C034	8	166.57	0.0036	0.054	1.39	0.15	0.23
-	036	C035	8	237.82	0.0037	0.044	1.31	0.14	0.21
	037	C026	10	210.25	0.0017	0.008	0.58	0.07	0.08
	038	C027	8	268.21	0.0035	0.018	1.00	0.09	0.13
	039	C028	8	265.19	0.0036	0.032	1.19	0.12	0.18
-	040	C029	8	271.91	0.0027	0.057	1.28	0.17	0.25
C041-C031 C	041	C031	8	329.44	0.0056	0.009	0.95	0.06	0.09
+	042	C041	8	149.57	0.0067	0.004	0.81	0.04	0.06
C043-C029 C	043	C029	8	251.52	0.0084	0.003	0.81	0.03	0.05
-	044	C030	8	211.72	0.0100	0.005	0.95	0.04	0.06
	045	C035	8	204.04	0.0064	0.008	0.94	0.05	0.08
	046	C047	8	308.01	0.0015	0.030	0.86	0.14	0.21
C047-C048 C	047	C048	8	39.28	0.0214	0.044	2.45	0.09	0.13
C048-D014 C	048	D014	8	348.69	0.0024	0.044	1.13	0.15	0.23
C049-C045 C	049	C045	8	40.09	0.0055	0.006	0.82	0.05	0.07
C051-C011 C	051	C011	8	156.72	0.0047	0.011	0.94	0.07	0.10
	052	C024	8	241.48	0.0039	0.015	0.98	0.08	0.12
C053-C052 C	053	C052	8	295.90	0.0072	0.008	1.00	0.05	0.08
C054-C052 C	054	C052	8	141.95	0.0039	0.003	0.60	0.04	0.06
C055-C024 C	055	C024	8	139.43	0.0040	0.006	0.74	0.05	0.08
H	056	C046	8	184.19	0.0005	0.010	0.41	0.11	0.16
C057-I051 C	057	1051	12	314.01	0.0023	0.003	0.49	0.04	0.04
-	058	C057	12	8.29	0.0084	0.000	0.00	0.00	0.00
C800-C017 C	2800	C017	12	113.47	0.0015	0.327	1.62	0.42	0.42
	2806	C037	8	324.10	0.0013	0.007	0.52	0.07	0.11
-	2809	C038	8	265.63	0.0037	0.014	0.94	0.08	0.12
-	C812	C039	8	267.35	0.0036	0.028	1.15	0.11	0.17
-	2813	C040	8	263.35	0.0029	0.054	1.27	0.16	0.24
-	0001	C006	12	304.59	0.0040	0.140	1.82	0.21	0.21
-	0002	D090	10	83.50	0.0020	0.000	0.00	0.00	0.00
	0003	D002	10	254.66	0.0020	0.000	0.00	0.00	0.00
	0004	D091	10	260.32	0.0022	0.197	1.63	0.31	0.38
	0005	D004	10	330.67	0.0021	0.197	1.62	0.31	0.38
	0006	D005	10	342.70	0.0021	0.197	1.58	0.32	0.38
 	0007	D006	10	329.85	0.0020	0.020	0.82	0.10	0.38

Model Results - Future Peak Wet Weather Flow (PWWF) Scenario

	From	То	Diameter	Length		Flow	Velocity	Water Depth	
Pipe ID	ID	ID	(inches)	(feet)	Slope	(MGD)	(ft/s)	(feet)	d/D
D008-D007	D008	D007	10	141.22	0.0019	0.018	0.78	0.10	0.12
D009-D008	D009	D008	10	183.07	0.0021	0.003	0.48	0.04	0.05
D010-D009	D010	D009	10	332.49	0.0020	0.003	0.47	0.04	0.05
D011-D001	D011	D001	10	291.10	0.0025	0.013	0.78	0.08	0.09
D012-D011	D012	D011	10	286.24	0.0025	0.001	0.30	0.02	0.02
D012-D098	D012	D098	10	293.36	0.0036	0.127	1.72	0.22	0.26
D013-D012	D013	D012	10	248.54	0.0026	0.087	1.38	0.20	0.24
D014-D013	D014	D013	10	247.66	0.0025	0.085	1.35	0.20	0.23
D015-D014	D015	D014	10	287.62	0.0025	0.035	1.04	0.13	0.15
D016-D015	D016	D015	10	291.68	0.0025	0.030	1.00	0.12	0.14
D018-D031	D018	D031	15	404.98	0.0011	0.960	1.90	0.76	0.61
D020-D018	D020	D018	15	395.03	0.0020	0.952	2.38	0.63	0.50
D021-D020	D021	D020	15	434.75	0.0018	0.949	2.30	0.65	0.52
D022A-D022	D022A	D022	12	297.71	0.0067	0.803	3.57	0.46	0.46
D022-D021	D022	D021	15	388.37	0.0021	0.938	2.42	0.61	0.49
D023-D016	D023	D016	8	107.86	0.0045	0.009	0.89	0.06	0.09
D024-D023	D024	D023	10	325.46	0.0020	0.009	0.64	0.07	0.08
D025-D022	D025	D022	8	24.54	0.1663	0.131	6.96	0.09	0.14
D025-D023	D025	D023	8	12.47	0.0024	0.000	0.00	0.00	0.00
D026-D025	D026	D025	8	255.56	0.0026	0.131	1.59	0.26	0.39
D027A-D026	D027A	D026	8	79.62	0.0069	0.127	2.24	0.20	0.30
D027-D027A	D027	D027A	8	169.81	0.0032	0.127	1.69	0.25	0.37
D028-D027	D028	D027	8	218.28	0.0041	0.110	1.78	0.21	0.32
D029-D028	D029	D028	8	153.07	0.0018	0.097	1.29	0.25	0.37
D030-D029	D030	D029	8	273.60	0.0024	0.088	1.38	0.22	0.33
D031-C009	D031	C009	15	118.99	0.0075	1.720	4.51	0.61	0.49
D032-D031	D032	D031	15	325.61	0.0020	0.758	2.25	0.55	0.44
D033-D032	D033	D032	12	248.97	0.0020	0.483	2.00	0.48	0.48
D034-D033	D034	D033	12	340.84	0.0020	0.483	2.00	0.48	0.48
D035-D034	D035	D034	12	331.40	0.0021	0.483	2.02	0.48	0.48
D036-D035	D036	D035	12	478.18	0.0020	0.474	1.99	0.48	0.48
D037-D036	D037	D036	12	427.81	0.0020	0.472	1.99	0.47	0.47
D038-D032	D038	D032	8	150.39	0.0091	0.075	2.12	0.14	0.21
D039-D038	D039	D038	8	223.98	0.0040	0.066	1.53	0.16	0.25
D040-D039	D040	D039	8	217.89	0.0017	0.052	1.05	0.18	0.27
D041-D040	D041	D040	8	217.47	0.0032	0.043	1.25	0.14	0.21
D042-D041	D042	D041	8	140.39	0.0034	0.037	1.22	0.13	0.19
D043-D042	D043	D042	8	206.59	0.0039	0.037	1.28	0.12	0.19
D044-D043	D044	D043	8	24.37	0.0189	0.021	1.87	0.06	0.10
D045-D038	D045	D038	6	342.74	0.0199	0.009	1.52	0.05	0.09
D046-D006	D046	D006	8	101.71	0.0286	0.177	4.08		0.25
D047-D046	D047	D046	8	59.27	0.0034	0.176	1.89		0.43
D048-D047	D048	D047	8	274.19	0.0032	0.134	1.72	0.25	0.38
D049-D048	D049	D048	8	59.50	0.0032	0.125	1.69		0.36
D050-D049	D050	D049	8	290.24	0.0032	0.109	1.62	0.22	0.34
D051-D050	D051	D050	8	37.51	0.0032	0.079	1.48	0.19	0.29
D052-D051	D052	D051	8	166.67	0.0031	0.048	1.27	0.15	0.22
D053-D052	D053	D052	8	195.64	0.0041	0.046	1.38	0.14	0.20
D054-D053	D054	D053	8	346.91	0.0032	0.016	0.93	0.09	0.13
D055-D054	D055	D054	8	349.45	0.0033	0.010	0.81	0.07	0.10
D056-D055	D056	D055	8	353.38	0.0031	0.005	0.65	0.05	0.08
D057-D050	D057	D050	8	252.07	0.0024	0.029	1.00	0.12	0.18
D058-D057	D058	D057	8	263.26	0.0024	0.025	0.95	0.11	0.17
D059-D058	D059	D058	8	263.11	0.0024	0.018	0.87	0.10	0.15
D060-D059	D060	D059	8	263.54	0.0024	0.012	0.77	0.08	0.12
D061-D060	D061	D060	8	309.54	0.0032	0.005	0.64	0.05	0.07

Model Results - Future Peak Wet Weather Flow (PWWF) Scenario

Pipe ID	0.13 0.09 0.09 0.07 0.12 0.12 0.10 0.12 0.14 0.17 0.28 0.09 0.10	0.13 0.13 0.10 0.18 0.18 0.15 0.17
D063-D062 D063 D062 8 259.25 D.0031 D.016 D.92 D064-D049 D064 D049 8 177.14 D.0031 D.016 D.92 D065-D064 D065 D0664 8 198.08 D.0032 D.010 D.81 D067-D051 D067 D051 8 251.85 D.0031 D.031 D.131 D.068-D067 D068 D067 8 255.94 D.0032 D.031 D.13 D069-D070 D069 D070 8 269.63 D.0020 D.018 D.81 D070-D071 D070 D071 8 254.91 D.0020 D.023 D.88 D071-D072 D071 D072 8 257.29 D.0020 D.023 D.88 D071-D072 D073 D074 8 264.21 D.0020 D.032 D.97 D073-D074 D073 D074 8 264.21 D.0020 D.051 D.10 D075-D074 D073 D074 8 228.15 D.0024 D.051 D.079 D075-D074 D073 D074 8 228.15 D.0024 D.015 D.83 D081-D073 D081 D073 8 255.40 D.0025 D.015 D.83 D081-D073 D081 D073 8 228.15 D.0024 D.015 D.83 D082-D081 D082 D081 8 255.40 D.0020 D.016 D.79 D082-D081 D082 D081 8 255.40 D.0020 D.016 D.79 D083-D082 D083 D082 8 256.66 D.0020 D.011 D.72 D084-D083 D084 D083 8 256.91 D.0036 D.009 D.81 D085-D084 D085 D084 8 255.72 D.0024 D.004 D.54 D085-D084 D085 D086 B086 B086	0.09 0.09 0.07 0.12 0.10 0.12 0.12 0.14 0.17 0.28	0.13 0.13 0.10 0.18 0.18 0.15 0.17
D064-D049 D064 D049 8 177.14 D.0031 D.016 D.92 D065-D064 D065 D064 8 198.08 D.0032 D.010 D.81 D067-D051 D067 D051 8 251.85 D.0031 D.031 1.13 D068-D067 D068 D067 8 255.94 D.0032 D.031 1.13 D069-D070 D069 D070 8 265.94 D.0020 D.018 D.81 D070-D071 D070 D071 8 254.91 D.0020 D.023 D.88 D071-D072 D071 D072 8 257.29 D.0020 D.027 D.92 D072-D073 D072 D073 8 264.21 D.0020 D.032 D.97 D073-D074 D073 D074 8 264.21 D.0020 D.051 1.10 D074-D030 D074 D075 D074 8 228.15 D.0024 D.015 D.83 D081-D073 D081 D073 D074 8 228.15 D.0024 D.015 D.83 D081-D073 D081 D073 B 255.49 D.0020 D.016 D.79 D083-D082 D081 D082 D081 B 255.40 D.0020 D.016 D.79 D083-D082 D083 D082 8 256.66 D.0020 D.016 D.79 D084-D083 D084 D083 8 256.91 D.0036 D.009 D.81 D085-D084 D085 D084 B 255.72 D.0024 D.015 D.95 D084-D086 D088 D088 B 255.72 D.0024 D.016 D.79 D086-D08A D086 D088 B 255.72 D.0024 D.016 D.79 D087-D086 D088 D088 B 255.72 D.0024 D.004 D.54 D086-D088 D088 D088 B 255.72 D.0024 D.004 D.95 D086-D086 D087 D086 B S.55 D091-D003 D091 D003 D094 B S.55 D091-D003 D091 D003 D094 B S.55 S.50 D091-D003 D091 D003 D094 B S.55 S.50 D094 D095 D096 D097 D076 B S.55 D091-D003 D091 D003 D091	0.09 0.07 0.12 0.10 0.12 0.12 0.14 0.17 0.28	0.13 0.10 0.18 0.18 0.15 0.17 0.19
D065-D064 D065 D064 8	0.07 0.12 0.10 0.12 0.12 0.14 0.17 0.28 0.09	0.10 0.18 0.18 0.15 0.17 0.19
D067-D051 D067 D051 8 251.85 0.0031 0.031 1.13 D068-D067 D068 D067 8 255.94 0.0032 0.031 1.13 D069-D070 D069 D070 8 269.63 0.0020 0.018 0.81 D070-D071 D070 D071 8 254.91 0.0020 0.023 0.88 D071-D072 D071 D072 8 255.29 0.0020 0.027 0.92 D072-D073 D072 D073 8 209.73 0.0020 0.032 0.97 D073-D074 D073 D074 8 264.21 0.0020 0.051 1.10 D074-D030 D074 D073 8 228.15 0.0020 0.051 1.10 D074-D030 D074 D073 B 8 81.80 0.0006 0.071 0.79 D075-D074 D075 D074 B 228.15 0.0022 0.015 0.83 D081-D073 D081 D073 8 184.78 0.0025 0.019 0.90 D082-D081 D082 D081 8 255.40 0.0020 0.016 0.79 D083-D082 D083 D082 8 256.91 0.0036 0.009 0.81 D084-D083 D084 D083 8 255.72 0.0024 0.002 0.012 0.72 D084-D083 D084 D083 8 255.72 0.0024 0.004 0.54 D086-D008 D086 D008 8 246.07 0.0040 0.013 0.95 D086-D008 D086 D088 8 246.07 0.0040 0.013 0.95 D086-D008 D087 D086 8 305.42 0.0040 0.009 0.85 D091-D032 D091 D003 10 69.11 0.0007 0.000 0.000 0.000 D091-D032 D091 D003 10 69.11 0.0007 0.000 0.000 0.000 D091-D032 D091 D003 10 69.11 0.0007 0.000 0.000 0.000 D091-D032 D091 D032 10 8.94 0.0022 0.197 1.65 D092-D074 D092 D074 8 334.36 0.0024 0.004 0.61 D094-D058 D095 D057 8 158.00 0.0032 0.004 0.61 D094-D058 D096 D097 D070 8 158.64 0.0183 0.004 1.09 D097-D070 D097 D070 8 158.64 0.0183 0.004 1.09 D097-D070 D097 D070 8 158.64 0.0183	0.12 0.10 0.10 0.12 0.14 0.17 0.28 0.09	0.18 0.18 0.15 0.17 0.19
D068-D067 D068 D067 8 255.94 0.0032 0.031 1.13 D069-D070 D069 D070 8 269.63 0.0020 0.018 0.81 D070-D071 D070 D071 8 254.91 0.0020 0.023 0.88 D071-D072 D071 D072 8 257.29 0.0020 0.023 0.88 D071-D072 D071 D072 8 257.29 0.0020 0.027 0.992 D072-D073 D072 D073 8 209.73 0.0020 0.032 0.997 D073-D074 D073 D074 8 264.21 0.0020 0.051 1.10 D074-D030 D074 D030 8 81.80 0.0006 0.071 0.79 D075-D074 D075 D074 8 228.15 0.0024 0.015 0.83 D081-D073 D081 D073 8 184.78 0.0025 0.019 0.90 D082-D081 D082 D081 8 255.40 0.0020 0.016 0.79 D083-D082 D083 D082 8 256.66 0.0020 0.012 0.72 D084-D083 D084 D083 8 256.91 0.0036 0.009 0.81 D085-D084 D085 D084 8 250.72 0.0024 0.013 0.95 D086-D008 D086 D008 8 246.07 0.0040 0.013 0.95 D086-D008 D086 D088 8 246.07 0.0040 0.013 0.95 D086-D008 D086 D088 8 246.07 0.0040 0.013 0.95 D081-D091-D003 D091 D003 10 69.11 0.0007 0.000 0.000 D091-D003 D091 D003 10 69.11 0.0007 0.000 0.000 D091-D003 D091 D003 10 69.11 0.0002 0.004 0.61 D094-D058 D094 D088 8 158.00 0.0032 0.004 0.61 D095-D077 D096-D077 D097 D077 8 158.64 0.0183 0.004 0.61 D096-D077 D096 D097 D070 8 158.64 0.0183 0.004 0.09 D097-D070 D097 D070 8 158.64 0.0183 0.004 0.061 D097-D070 D097 D070 8 158.64 0.0183 0.004 0.091 D097-D070 D097 D070 8 158.64 0.0183 0.004 0.091 D097-D070 D097 D070 8 158.64 0.0183 0.004 0.091 D097-D070 D097 D070 8 158.64 0.0183 0.004 0.005 0.004 D097-D070 D097 D070 8 158.64 0.0183 0.0	0.12 0.10 0.12 0.12 0.14 0.17 0.28 0.09	0.18 0.15 0.17 0.19
D069-D070 D069 D070 8 269.63 0.0020 0.018 0.81	0.10 0.12 0.12 0.14 0.17 0.28 0.09	0.15 0.17 0.19
D070-D071 D070 D071 8 254.91 0.0020 0.023 0.88 D071-D072 D071 D072 8 257.29 0.0020 0.027 0.92 D072-D073 D072 D073 8 209.73 0.0020 0.032 0.97 D073-D074 D073 D074 8 264.21 0.0020 0.051 1.10 D074-D030 D074 D075 D074 8 228.15 0.0024 0.015 0.83 D081-D073 D081 D073 8 184.78 0.0025 0.019 0.90 D082-D081 D082 D081 8 255.40 0.0020 0.016 0.79 D083-D082 D083 D082 8 256.66 0.0020 0.016 0.79 D083-D084 D083 8 256.91 0.0036 0.009 0.81 D084-D083 D084 D083 8 256.91 0.0036 0.009 0.81 D086-D008 D086 D008 8 246.07 0.0040 0.013 0.95 D086-D008 D086 D008 8 246.07 0.0040 0.013 0.95 D087-D086 D087 D086 D088 8 246.07 0.0040 0.013 0.95 D091-D032 D091 D093 D094 D095 D095 D095 B158.00 D094 D095 D095 B158.00 D093 D095 B158.00 D093 D095 D095 B158.00 D093 D095 D095 B158.00 D093 D095 D095 B158.00 D093 D095 D095 D095 B158.00 D093 D095 D095	0.12 0.12 0.14 0.17 0.28 0.09	0.17
D071-D072 D071 D072 8 257.29 0.0020 0.027 0.92 D072-D073 D072 D073 8 209.73 0.0020 0.032 0.97 D073-D074 D073 D074 8 264.21 0.0020 0.051 1.10 D074-D030 D074 8 264.21 0.0020 0.051 1.10 D075-D074 D075 D074 8 228.15 0.0024 0.015 0.83 D081-D073 D081 D073 8 184.78 0.0025 0.019 0.90 D082-D081 D082 D081 8 255.40 0.0020 0.016 0.79 D083-D082 D083 D082 8 256.66 0.0020 0.012 0.72 D084-D083 D084 D083 8 256.91 0.0036 0.009 0.81 D085-D084 D085 D084 8 250.72 0.0024 0.004 0.54 D086-D008A <	0.12 0.14 0.17 0.28 0.09	0.19
D072-D073 D072 D073 8 209.73 0.0020 0.032 0.97	0.14 0.17 0.28 0.09	
D073-D074 D073 D074 8 264.21 D.0020 D.051 D.110	0.17 0.28 0.09	
D074-D030 D074 D030 8 81.80 0.0006 0.071 0.79 D075-D074 D075 D074 8 228.15 0.0024 0.015 0.83 D081-D073 D081 D073 8 184.78 0.0025 0.019 0.90 D082-D081 D082 D081 8 255.40 0.0020 0.016 0.79 D083-D082 D083 D082 8 256.66 0.0020 0.012 0.72 D084-D083 D084 D083 8 256.91 0.0036 0.009 0.81 D085-D084 D085 D084 8 250.72 0.0024 0.044 0.54 D086-D008 D086 D008 8 246.07 0.0040 0.013 0.95 D086-D008A D008A 8 185.17 0.0231 0.002 0.96 D087-D086 D087 D086 8 305.42 0.0040 0.009 0.85 D091-D003 <	0.28	0.21
D075-D074 D075 D074 8 228.15 0.0024 0.015 0.83 D081-D073 D081 D073 8 184.78 0.0025 0.019 0.90 D082-D081 D082 D081 8 255.40 0.0020 0.016 0.79 D083-D082 D083 D082 8 256.66 0.0020 0.012 0.72 D084-D083 D084 D083 8 256.91 0.0036 0.009 0.81 D085-D084 D085 D084 8 250.72 0.0024 0.004 0.54 D086-D008 D086 D008 8 246.07 0.0040 0.013 0.95 D086-D008A D008 8 185.17 0.0231 0.002 0.96 D087-D086 D087 D086 8 305.42 0.0040 0.009 0.85 D090-D001 D090 D001 8 17.57 0.0023 0.127 1.50 D091-D032 <t< td=""><td>0.09</td><td>0.26</td></t<>	0.09	0.26
D081-D073 D081 D073 8 184.78 0.0025 0.019 0.90 D082-D081 D082 D081 8 255.40 0.0020 0.016 0.79 D083-D082 D083 D082 8 256.66 0.0020 0.012 0.72 D084-D083 D084 D083 8 256.91 0.0036 0.009 0.81 D085-D084 D085 D084 8 250.72 0.0024 0.004 0.54 D086-D008 D086 D008 8 246.07 0.0040 0.013 0.95 D087-D086 D087 D086 8 305.42 0.0040 0.009 0.85 D090-D001 D090 D001 8 17.57 0.0023 0.127 1.50 D091-D032 D091 D003 10 69.11 0.0007 0.000 0.00 D091-D032 D091 D032 10 8.94 0.0022 0.197 1.65 D092-		0.42
D082-D081 D082 D081 8 255.40 0.0020 0.016 0.79 D083-D082 D083 D082 8 256.66 0.0020 0.012 0.72 D084-D083 D084 D083 8 256.91 0.0036 0.009 0.81 D085-D084 D085 D084 8 250.72 0.0024 0.004 0.54 D086-D008 D086 D008 8 246.07 0.0040 0.013 0.95 D086-D008A D008A D008 8 185.17 0.0231 0.002 0.96 D087-D086 D087 D086 8 305.42 0.0040 0.009 0.85 D090-D001 D090 D001 8 17.57 0.0023 0.127 1.50 D091-D032 D091 D003 10 69.11 0.0007 0.000 0.00 D092-D074 D092 D074 8 334.36 0.0024 0.005 0.58 D0	0.10	0.14
D083-D082 D083 D082 8 256.66 0.0020 0.012 0.72 D084-D083 D084 D083 8 256.91 0.0036 0.009 0.81 D085-D084 D085 D084 8 250.72 0.0024 0.004 0.54 D086-D008 D086 D008 8 246.07 0.0040 0.013 0.95 D086-D008A D008A D008 8 185.17 0.0231 0.002 0.96 D087-D086 D087 D086 8 305.42 0.0040 0.009 0.85 D090-D001 D090 D001 8 17.57 0.0023 0.127 1.50 D091-D003 D091 D003 10 69.11 0.0007 0.000 0.00 D091-D032 D091 D032 10 8.94 0.0022 0.197 1.65 D092-D074 D092 D074 8 334.36 0.0024 0.005 0.58 D09		0.15
D084-D083 D084 D083 8 256.91 0.0036 0.009 0.81 D085-D084 D085 D084 8 250.72 0.0024 0.004 0.54 D086-D008 D086 D008 8 246.07 0.0040 0.013 0.95 D086-D008A D008A D008 8 185.17 0.0231 0.002 0.96 D087-D086 D087 D086 8 305.42 0.0040 0.009 0.85 D090-D001 D090 D001 8 17.57 0.0023 0.127 1.50 D091-D003 D091 D003 10 69.11 0.0007 0.000 0.00 D091-D032 D091 D032 10 8.94 0.0022 0.197 1.65 D092-D074 D092 D074 8 334.36 0.0024 0.005 0.58 D093-D059 D093 D059 8 158.00 0.0032 0.004 0.61 D09	0.10	0.15
D085-D084 D085 D084 8 250.72 0.0024 0.004 0.54 D086-D008 D086 D008 8 246.07 0.0040 0.013 0.95 D086-D008A D008A D008 8 185.17 0.0231 0.002 0.96 D087-D086 D087 D086 8 305.42 0.0040 0.009 0.85 D090-D001 D090 D001 8 17.57 0.0023 0.127 1.50 D091-D003 D091 D003 10 69.11 0.0007 0.000 0.00 D091-D032 D091 D032 10 8.94 0.0022 0.197 1.65 D092-D074 D092 D074 8 334.36 0.0024 0.005 0.58 D093-D059 D093 D059 8 158.00 0.0032 0.004 0.61 D094-D058 D094 D058 8 158.90 0.0032 0.004 0.61 D09	0.08	0.13
D086-D008 D086 D008 8 246.07 0.0040 0.013 0.95 D086-D008A D008A D008 8 185.17 0.0231 0.002 0.96 D087-D086 D087 D086 8 305.42 0.0040 0.009 0.85 D090-D001 D090 D001 8 17.57 0.0023 0.127 1.50 D091-D003 D091 D003 10 69.11 0.0007 0.000 0.00 D091-D032 D091 D032 10 8.94 0.0022 0.197 1.65 D092-D074 D092 D074 8 334.36 0.0024 0.005 0.58 D093-D059 D093 D059 8 158.00 0.0032 0.004 0.61 D094-D058 D094 D058 8 159.26 0.0032 0.004 0.61 D095-D057 D095 D057 8 158.64 0.0183 0.004 0.61 D09	0.06	0.09
D086-D008A D008A D008 8 185.17 0.0231 0.002 0.96 D087-D086 D087 D086 8 305.42 0.0040 0.009 0.85 D090-D001 D090 D001 8 17.57 0.0023 0.127 1.50 D091-D003 D091 D003 10 69.11 0.0007 0.000 0.00 D091-D032 D091 D032 10 8.94 0.0022 0.197 1.65 D092-D074 D092 D074 8 334.36 0.0024 0.005 0.58 D093-D059 D093 D059 8 158.00 0.0032 0.004 0.61 D094-D058 D094 D058 8 158.90 0.0032 0.004 0.61 D095-D057 D095 D057 8 159.26 0.0032 0.004 0.61 D096-D071 D096 D071 8 158.64 0.0183 0.004 0.93 D09	0.05	0.07
D087-D086 D087 D086 8 305.42 0.0040 0.009 0.85 D090-D001 D090 D001 8 17.57 0.0023 0.127 1.50 D091-D003 D091 D003 10 69.11 0.0007 0.000 0.00 D091-D032 D091 D032 10 8.94 0.0022 0.197 1.65 D092-D074 D092 D074 8 334.36 0.0024 0.005 0.58 D093-D059 D093 D059 8 158.00 0.0032 0.004 0.61 D094-D058 D094 D058 8 158.90 0.0032 0.004 0.61 D095-D057 D095 D057 8 159.26 0.0032 0.004 0.61 D096-D071 D096 D071 8 158.64 0.0183 0.004 1.09 D097-D070 D097 D070 8 155.79 0.0115 0.004 0.93 D098-	0.08	0.11
D090-D001 D090 D001 8 17.57 0.0023 0.127 1.50 D091-D003 D091 D003 10 69.11 0.0007 0.000 0.00 D091-D032 D091 D032 10 8.94 0.0022 0.197 1.65 D092-D074 D092 D074 8 334.36 0.0024 0.005 0.58 D093-D059 D093 D059 8 158.00 0.0032 0.004 0.61 D094-D058 D094 D058 8 158.90 0.0032 0.004 0.61 D095-D057 D095 D057 8 159.26 0.0032 0.004 0.61 D096-D071 D096 D071 8 158.64 0.0183 0.004 1.09 D097-D070 D097 D070 8 155.79 0.0115 0.004 0.93 D098-D090 D090 10 301.60 0.0022 0.127 1.45 E001-E003 <td< td=""><td>0.02</td><td>0.03</td></td<>	0.02	0.03
D091-D003 D091 D003 10 69.11 0.0007 0.000 0.00 D091-D032 D091 D032 10 8.94 0.0022 0.197 1.65 D092-D074 D092 D074 8 334.36 0.0024 0.005 0.58 D093-D059 D093 D059 8 158.00 0.0032 0.004 0.61 D094-D058 D094 D058 8 158.90 0.0032 0.004 0.61 D095-D057 D095 D057 8 159.26 0.0032 0.004 0.61 D096-D071 D096 D071 8 158.64 0.0183 0.004 1.09 D097-D070 D097 D070 8 155.79 0.0115 0.004 0.93 D098-D090 D098 D090 10 301.60 0.0022 0.127 1.45 E001-E003 E001 E003 10 10.42 0.1344 0.055 4.82 E00	0.06	0.10
D091-D003 D091 D003 10 69.11 0.0007 0.000 0.00 D091-D032 D091 D032 10 8.94 0.0022 0.197 1.65 D092-D074 D092 D074 8 334.36 0.0024 0.005 0.58 D093-D059 D093 D059 8 158.00 0.0032 0.004 0.61 D094-D058 D094 D058 8 158.90 0.0032 0.004 0.61 D095-D057 D095 D057 8 159.26 0.0032 0.004 0.61 D096-D071 D096 D071 8 158.64 0.0183 0.004 1.09 D097-D070 D097 D070 8 155.79 0.0115 0.004 0.93 D098-D090 D098 D090 10 301.60 0.0022 0.127 1.45 E001-E003 E001 E003 10 10.42 0.1344 0.055 4.82 E00	0.27	0.40
D091-D032 D091 D032 10 8.94 0.0022 0.197 1.65 D092-D074 D092 D074 8 334.36 0.0024 0.005 0.58 D093-D059 D093 D059 8 158.00 0.0032 0.004 0.61 D094-D058 D094 D058 8 158.90 0.0032 0.004 0.61 D095-D057 D095 D057 8 159.26 0.0032 0.004 0.61 D096-D071 D096 D071 8 158.64 0.0183 0.004 1.09 D097-D070 D097 D070 8 155.79 0.0115 0.004 0.93 D098-D090 D098 D090 10 301.60 0.0022 0.127 1.45 E001-D010 E001 D010 10 316.10 0.0021 0.000 0.00 E002-E001 E002 E001 8 39.33 0.0036 0.021 1.04	0.00	0.00
D092-D074 D092 D074 8 334.36 0.0024 0.005 0.58 D093-D059 D093 D059 8 158.00 0.0032 0.004 0.61 D094-D058 D094 D058 8 158.90 0.0032 0.004 0.61 D095-D057 D095 D057 8 159.26 0.0032 0.004 0.61 D096-D071 D096 D071 8 158.64 0.0183 0.004 1.09 D097-D070 D097 D070 8 155.79 0.0115 0.004 0.93 D098-D090 D098 D090 10 301.60 0.0022 0.127 1.45 E001-D010 E001 D010 10 316.10 0.0021 0.000 0.00 E001-E003 E001 E003 10 10.42 0.1344 0.055 4.82 E002-E001 E002 E001 8 39.33 0.0036 0.021 1.04	0.31	
D093-D059 D093 D059 8 158.00 0.0032 0.004 0.61 D094-D058 D094 D058 8 158.90 0.0032 0.004 0.61 D095-D057 D095 D057 8 159.26 0.0032 0.004 0.61 D096-D071 D096 D071 8 158.64 0.0183 0.004 1.09 D097-D070 D097 D070 8 155.79 0.0115 0.004 0.93 D098-D090 D098 D090 10 301.60 0.0022 0.127 1.45 E001-D010 E001 D010 10 316.10 0.0021 0.000 0.00 E001-E003 E001 E003 10 10.42 0.1344 0.055 4.82 E002-E001 E002 E001 8 39.33 0.0036 0.021 1.04	0.05	
D094-D058 D094 D058 8 158.90 0.0032 0.004 0.61 D095-D057 D095 D057 8 159.26 0.0032 0.004 0.61 D096-D071 D096 D071 8 158.64 0.0183 0.004 1.09 D097-D070 D097 D070 8 155.79 0.0115 0.004 0.93 D098-D090 D098 D090 10 301.60 0.0022 0.127 1.45 E001-D010 E001 D010 10 316.10 0.0021 0.000 0.00 E001-E003 E001 E003 10 10.42 0.1344 0.055 4.82 E002-E001 E002 E001 8 39.33 0.0036 0.021 1.04	0.04	
D095-D057 D095 D057 8 159.26 0.0032 0.004 0.61 D096-D071 D096 D071 8 158.64 0.0183 0.004 1.09 D097-D070 D097 D070 8 155.79 0.0115 0.004 0.93 D098-D090 D098 D090 10 301.60 0.0022 0.127 1.45 E001-D010 E001 D010 10 316.10 0.0021 0.000 0.00 E001-E003 E001 E003 10 10.42 0.1344 0.055 4.82 E002-E001 E002 E001 8 39.33 0.0036 0.021 1.04	0.04	0.07
D096-D071 D096 D071 8 158.64 0.0183 0.004 1.09 D097-D070 D097 D070 8 155.79 0.0115 0.004 0.93 D098-D090 D098 D090 10 301.60 0.0022 0.127 1.45 E001-D010 E001 D010 10 316.10 0.0021 0.000 0.00 E001-E003 E001 E003 10 10.42 0.1344 0.055 4.82 E002-E001 E002 E001 8 39.33 0.0036 0.021 1.04	0.04	0.07
D097-D070 D097 D070 8 155.79 0.0115 0.004 0.93 D098-D090 D098 D090 10 301.60 0.0022 0.127 1.45 E001-D010 E001 D010 10 316.10 0.0021 0.000 0.00 E001-E003 E001 E003 10 10.42 0.1344 0.055 4.82 E002-E001 E002 E001 8 39.33 0.0036 0.021 1.04	0.03	0.04
D098-D090 D098 D090 10 301.60 0.0022 0.127 1.45 E001-D010 E001 D010 10 316.10 0.0021 0.000 0.00 E001-E003 E001 E003 10 10.42 0.1344 0.055 4.82 E002-E001 E002 E001 8 39.33 0.0036 0.021 1.04	0.03	0.05
E001-D010 E001 D010 10 316.10 0.0021 0.000 0.00 E001-E003 E001 E003 10 10.42 0.1344 0.055 4.82 E002-E001 E002 E001 8 39.33 0.0036 0.021 1.04	0.25	0.30
E001-E003 E001 E003 10 10.42 0.1344 0.055 4.82 E002-E001 E002 E001 8 39.33 0.0036 0.021 1.04	0.00	
E002-E001 E002 E001 8 39.33 0.0036 0.021 1.04	0.06	0.07
	0.10	0.14
[E003-D037 E003 D037 12 409.94 0.0021 0.459 2.00	0.46	
E005A-E003 E005A E003 12 507.10 0.0041 0.390 2.45	0.35	0.35
E005-E005A E005 E005A 8 17.20 0.0279 0.288 4.65	0.21	0.32
E006-E005 E006 E005 8 286.15 0.0024 0.285 1.87	0.43	
E007-E006 E007 E006 8 286.09 0.0024 0.264 1.84	0.41	0.61
E008-E007 E008 E007 8 283.56 0.0021 0.264 1.73	0.43	0.64
E009-E008 E009 E008 8 17.82 0.0067 0.116 2.16	0.19	0.29
E010-E009 E010 E009 8 168.63 0.0018 0.116 1.34	0.27	0.41
E011-E010 E011 E010 8 15.83 0.0030 0.031 1.11	0.12	0.18
E012-E011 E012 E011 8 317.97 0.0024 0.031 1.02	0.13	
E013-E012 E013 E012 8 309.59 0.0032 0.019 0.97	0.09	
E014-E013	0.04	1
E015-E005A E015 E005A 8 305.23 0.0082 0.095 2.18	0.17	1
E016-E015	0.21	1
E017-E016 E017 E016 8 241.83 0.0022 0.073 1.27		
E017 E018 E017 8 192.34 0.0024 0.017 0.85	0.20	-
E019-E018 E019 E018 8 271.24 0.0024 0.015 0.81	0.20	1
E020-E019 E020 E019 8 269.46 0.0024 0.013 0.78	0.10	
E020-E019 E020 E019 8 258.84 0.0029 0.010 0.78	0.10	1
E022-E021 E022 E021 8 309.40 0.0024 0.004 0.55	0.10 0.09 0.08	+
E022 E021 8 309.40 0.0024 0.004 0.55 E023 E021 8 298.27 0.0024 0.004 0.57	0.10 0.09 0.08 0.07	0.07
E023 E021 8 298.27 0.0024 0.004 0.57 E024-E023 8 175.78 0.0024 0.002 0.42	0.10 0.09 0.08	0.07

Model Results - Future Peak Wet Weather Flow (PWWF) Scenario

	From	То	Diameter	Length	veather 110	Flow		Water Depth	
Pipe ID	ID	ID	(inches)	(feet)	Slope	(MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
E026-D060	E026	D060	8	263.25	0.0024	0.006	0.62	0.06	0.09
E027-E026	E027	E026	8	255.02	0.0024	0.004	0.56	0.05	0.07
E028-E027	E028	E027	8	248.27	0.0024	0.002	0.45	0.03	0.05
E029-D069	E029	D069	8	273.09	0.0023	0.015	0.81	0.09	0.13
E030-E029	E030	E029	8	265.12	0.0028	0.013	0.82	0.08	0.12
E031-E017	E031	E017	8	181.74	0.0037	0.018	1.01	0.09	0.13
E032-E031	E032	E031	8	68.05	0.0035	0.016	0.96	0.09	0.13
E033-E032	E033	E032	8	98.89	0.0023	0.002	0.42	0.03	0.05
E034-E032	E034	E032	8	354.07	0.0024	0.014	0.81	0.09	0.13
E035-E034	E035	E034	8	345.39	0.0024	0.011	0.75	0.08	0.11
E036-E035	E036	E035	8	202.77	0.0024	0.004	0.56	0.05	0.07
E037-E017	E037	E017	8	227.30	0.0023	0.036	1.06	0.14	0.21
E038-E037	E038	E037	8	299.86	0.0024	0.020	0.89	0.10	0.15
E039-E038	E039	E038	8	299.65	0.0024	0.016	0.83	0.09	0.14
E040-E039	E040	E039	8	299.48	0.0021	0.011	0.71	0.08	0.12
E041-E040	E041	E040	8	303.30	0.0027	0.006	0.64	0.06	0.08
E042-E041	E042	E041	8	139.42	0.0025	0.002	0.42	0.03	0.05
E043-E037	E043	E037	8	230.96	0.0076	0.012	1.15	0.06	0.09
E044-E043	E044	E043	8	349.56	0.0024	0.005	0.61	0.06	0.08
E045-E044	E045	E044	8	203.86	0.0024	0.001	0.38	0.03	0.04
E046-E016	E046	E016	8	347.94	0.0024	0.009	0.72	0.07	0.11
E047-E046	E047	E046	8	111.30	0.0023	0.005	0.57	0.05	0.08
E048-E015	E048	E015	8	343.93	0.0102	0.010	1.20	0.05	0.08
E049-E048	E049	E048	8	105.88	0.0025	0.004	0.58	0.05	0.08
E050-E002	E050	E002	8	350.45	0.0034	0.021	1.03	0.10	0.14
E051-E050	E051	E050	8	151.23	0.0040	0.016	1.00	0.08	0.12
E052-E008	E052	E008	8	168.78	0.0010	0.148	1.15	0.37	0.56
E054-E810	E054	E810	8	258.33	0.0020	0.041	1.03	0.15	0.23
E055-E054	E055	E054	8	363.76	0.0024	0.018	0.87	0.10	0.15
E056-E055	E056	E055	8	359.81	0.0024	0.014	0.81	0.09	0.13
E057-E056	E057	E056	8	363.34	0.0024	0.008	0.69	0.07	0.10
E058-E054	E058	E054	8	268.53	0.0020	0.020	0.84	0.11	0.16
E059-E058	E059	E058	8	360.76	0.0020	0.015	0.78	0.10	0.14
E060-E059	E060	E059	8	360.38	0.0020	0.012	0.72	0.08	0.13
E061-E060	E061	E060	8	364.40	0.0020	0.006	0.59	0.06	0.09
E801-E030	E801	E030	8	267.27	0.0020	0.011	0.70	0.08	0.12
E806-E052	E806	E052	8	24.49	0.0010	0.103	1.04	0.30	0.45
E807-E806	E807	E806	8	187.08	0.0008	0.103	0.96	0.32	0.48
E808A-E807	E808A	E807	8	358.79	0.0011	0.103	1.07	0.29	0.44
E808-E808A	E808	E808A	8	131.23	0.0010	0.103	1.06	0.30	0.45
E809-E808	E809	E808	8	255.48	0.0011	0.085	1.04	0.26	0.39
E810-E809	E810	E809	8	261.87	0.0011	0.046	0.86	0.19	0.29
E811-E810	E811	E810	8	348.96	0.0024	0.005	0.61	0.06	0.08
E812-E811	E812	E811	8	255.53	0.0024	0.003	0.51	0.04	0.06
E833-E058	E833	E058	8	119.97	0.0021	0.001	0.39	0.03	0.05
F002-F001	F002	F001	21	8.05	0.2473	0.027	4.32	0.03	0.02
F003-F002	F003	F002	15	349.22	0.0031	0.027	0.99	0.10	0.08
F004-F003	F004	F003	15	357.41	0.0047	0.007	0.76	0.05	0.04
F005-F004	F005	F004	15	351.22	0.0047	0.007	0.76	0.05	0.04
F006-F800	F006	F800	8	418.39	0.0050	0.031	1.32	0.11	0.16
F007-F006	F007	F006	8	83.80	0.0075	0.031	1.52	0.10	0.15
F008-F007	F008	F007	8	335.84	0.0052	0.017	1.11	0.08	0.12
F009-F008	F009	F008	8	328.78	0.0015	0.007	0.55	0.07	0.10
F011-F001	F011	F001	8	46.69	0.0291	0.016	2.01	0.05	0.08
G001-G001A	G001	G001A	8	216.66	0.0027	0.044	1.19	0.15	0.22
G002-G001	G002	G001	8	191.60	0.0020	0.015	0.78	0.10	0.14

Model Results - Future Peak Wet Weather Flow (PWWF) Scenario

	From	То	Diameter	Length		Flow	Velocity	Water Depth	
Pipe ID	ID	ID	(inches)	(feet)	Slope	(MGD)	(ft/s)	(feet)	d/D
G003-G002	G003	G002	8	164.47	0.0020	0.011	0.70	0.08	0.12
G004-G003	G004	G003	8	281.87	0.0020	0.007	0.60	0.06	0.10
G005-G004	G005	G004	8	298.34	0.0020	0.007	0.61	0.06	0.10
G006-G005	G006	G005	8	169.64	0.0020	0.002	0.43	0.04	0.06
G007-G012	G007	G012	8	134.80	0.0040	0.002	0.51	0.03	0.04
G008-G001	G008	G001	8	106.31	0.0029	0.029	1.07	0.12	0.18
G009-G008	G009	G008	8	321.87	0.0023	0.024	0.93	0.11	0.17
G010-G009	G010	G009	8	245.00	0.0020	0.021	0.86	0.11	0.17
G011-G010	G011	G010	8	261.41	0.0020	0.017	0.79	0.10	0.15
G012-G011	G012	G011	8	88.58	0.0019	0.013	0.74	0.09	0.13
G013-G012	G013	G012	8	327.73	0.0020	0.012	0.71	0.08	0.13
G014-G013	G014	G013	8	328.54	0.0020	0.007	0.62	0.07	0.10
G015-G009	G015	G009	8	196.50	0.0039	0.003	0.60	0.04	0.06
G016-G008	G016	G008	8	33.09	0.0181	0.001	0.80	0.02	0.03
G801-G014	G801	G014	8	121.87	0.0021	0.002	0.45	0.04	0.06
H010-H002	H010	H002	12	11.95	0.1163	0.552	8.93	0.18	0.18
H011-H010	H011	H010	10	298.95	0.0020	0.250	1.68	0.36	0.44
H013-H011	H013	H011	10	285.32	0.0019	0.245	1.65	0.36	0.44
H015-H013	H015	H013	10	288.22	0.0015	0.243	1.53	0.38	0.44
H016-H015	H016	H015	10	342.70	0.0018	0.241	1.61	0.36	0.40
H017-H016	H017	H016	10	189.85	0.0018	0.238	1.66	0.36	0.44
H018-H017	H018	H017	10	163.53	0.0020	0.238	1.65	0.34	0.43
H019A-H018	H019A	H017	10	105.53	0.0020	0.224	1.63	0.34	0.41
H019-H019A	H019A	H019A	10	244.75	0.0021	0.209	1.62	0.33	0.39
H020-H019	H020	H019A	10	349.29	0.0020	0.209	1.62	0.33	0.39
	+	H019		75.24	0.0020	0.209	1.62	0.33	
H021-H020	H021		10						0.39
H022-H021	H022	H021	10	72.48	0.0017	0.194	1.48	0.33	0.40
H023-H010	H023	H010	8	62.07	0.0169	0.302	3.93	0.25	0.37
H024-H023	H024	H023	8	558.60	0.0163	0.163	3.26	0.18	0.27
H024-H025	H024	H025	10	245.01	0.0018	0.056	1.07	0.17	0.21
H025-H026	H025	H026	10	260.18	0.0012	0.088	1.04	0.24	0.29
H026-H027	H026	H027	10	279.48	0.0012	0.093	1.06	0.25	0.30
H027-H028	H027	H028	10	112.54	0.0013	0.104	1.15	0.25	0.30
H028-H029	H028	H029	10	257.18	0.0017	0.191	1.49	0.33	0.39
H029-H030	H029	H030	10	368.36	0.0012	0.206	1.34	0.37	0.45
H030-H031	H030	H031	10	371.57	0.0012	0.216	1.34	0.39	0.47
H031-I012	H031	1012	10	217.20	0.0018	0.218	1.59		0.41
H037-H105	H037	H105	10	143.48	0.0012	0.200	1.32	0.37	0.45
H038-H037	H038	H037	8	255.33	0.0020	0.009	0.66	0.08	0.11
H039-H038	H039	H038	8	221.94	0.0023	0.004	0.56	0.05	0.08
H040-H037	H040	H037	10	176.19	0.0013	0.189	1.32	0.35	0.42
H041-H040	H041	H040	10	180.57	0.0011	0.186	1.25	0.37	0.44
H042-H041	H042	H041	10	208.95	0.0013	0.182	1.33	0.34	0.41
H043-H042	H043	H042	10	348.08	0.0012	0.180	1.29	0.35	0.42
H044-H043	H044	H043	8	263.66	0.0024	0.023	0.94	0.11	0.17
H045-H044	H045	H044	8	105.25	0.0025	0.018	0.87	0.10	0.14
H046-H045	H046	H045	8	185.11	0.0024	0.015	0.82	0.09	0.14
H047-H046	H047	H046	8	256.71	0.0024	0.010	0.72	0.07	0.11
H048-H047	H048	H047	8	257.07	0.0024	0.007	0.64	0.06	0.09
H049-H048	H049	H048	8	76.99	0.0025	0.001	0.36	0.02	0.04
H050-H043	H050	H043	10	370.83	0.0012	0.152	1.22	0.32	0.38
H051-H050	H051	H050	10	173.91	0.0012	0.098	1.09	0.25	0.30
H052-H051	H052	H051	8	31.75	0.0025	0.096	1.44	0.22	0.34
H053-H052	H053	H052	8	367.94	0.0049	0.017	1.09	0.08	0.12
H054-H053	H054	H053	8	349.15	0.0024	0.012	0.76	0.08	0.12
H055-H054	H055	H054	8	356.63	0.0024	0.007	0.65	0.06	0.09

Model Results - Future Peak Wet Weather Flow (PWWF) Scenario

	_		el Results - Futur		reatner Fiol				
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
H056-H050	H056	H050	8	120.40	0.0098	0.048	1.91	0.11	0.17
H057-H056	H057	H056	8	111.24	0.0058	0.048	1.58	0.13	0.19
H058-H057	H058	H057	8	202.28	0.0042	0.005	0.72	0.05	0.07
H059-H058	H059	H058	8	156.47	0.0025	0.003	0.51	0.04	0.06
H060-H044	H060	H044	8	295.35	0.0040	0.004	0.67	0.04	0.07
H061-H045	H061	H045	8	102.73	0.0024	0.003	0.49	0.04	0.06
H062-H046	H062	H046	8	154.62	0.0024	0.004	0.45	0.04	0.06
H063-H047	H063	H047	8	140.27	0.0041	0.003	0.63	0.04	0.06
H064-H048	H064	H048	8	139.81	0.0040	0.003	0.63	0.04	0.06
H065-H106	H065	H106	10	180.62	0.0040	0.003	1.05	0.04	0.00
H066-H065	H066	H065	8	250.93	0.0013	0.073	1.35	0.08	0.12
H067-H066	H067	H066	8	348.08	0.0072	0.022	0.87	0.08	0.12
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H068A-H068	H068A	H068	8	251.25	0.0024	0.005	0.59	0.05	0.08
H068B-H068A	H068B	H068A	8	465.67	0.0060	0.003	0.73	0.04	0.05
H068-H067	H068	H067	8	312.25	0.0024	0.016	0.83	0.09	0.14
H069-H068	H069	H068	8	389.36	0.0042	0.006	0.75	0.05	0.08
H070-H065	H070	H065	8	71.63	0.0020	0.057	1.13	0.18	0.27
H071-H070	H071	H070	8	244.58	0.0020	0.052	1.12	0.17	0.26
H072-H071	H072	H071	8	327.00	0.0020	0.042	1.05	0.16	0.23
H073-H072	H073	H072	8	259.59	0.0018	0.035	0.96	0.15	0.22
H074-H073	H074	H073	8	251.92	0.0023	0.016	0.84	0.09	0.14
H075-H074	H075	H074	8	179.86	0.0026	0.012	0.78	0.08	0.12
H076-H075	H076	H075	8	270.02	0.0060	0.007	0.88	0.05	0.07
H077-H076	H077	H076	8	140.40	0.0061	0.001	0.55	0.02	0.03
H078-H075	H078	H075	8	281.19	0.0023	0.005	0.58	0.05	0.08
H079-H076	H079	H076	8	143.56	0.0100	0.003	0.87	0.03	0.05
H080-H071	H080	H071	8	224.74	0.0020	0.006	0.60	0.06	0.09
H081-H080	H081	H080	8	260.17	0.0024	0.005	0.60	0.05	0.08
H082-H073	H082	H073	8	329.25	0.0024	0.007	0.64	0.06	0.09
H083-B021	H083	B021	8	54.69	0.0035	0.091	1.59	0.20	0.30
H084-H083	H084	H083	8	227.00	0.0030	0.075	1.42	0.19	0.28
H085-H084	H085	H084	8	193.57	0.0024	0.072	1.31	0.19	0.29
H086-H085	H086	H085	8	21.87	0.0018	0.069	1.17	0.21	0.31
H087-H086	H087	H086	8	208.71	0.0024	0.051	1.17	0.16	0.25
H088-H087	H088	H087	8	122.13	0.0024	0.048	1.16	0.16	0.24
H089-H088	H089	H088	8	107.80	0.0022	0.046	1.12	0.16	0.24
H090-H089	H090	H089	8	77.79	0.0015	0.042	0.95	0.17	0.25
H091-H090	H091	H090	8	27.03	0.0037	0.033	1.21	0.12	0.18
H092-H091	H092	H091	8	203.17	0.0024	0.025	0.95	0.11	0.17
H093-B023	H093	B023	8	400.45	0.0042	0.021	1.11	0.09	0.14
H094-H093	H094	H093	8	399.49	0.0038	0.011	0.89	0.07	0.11
H095-B026A	H095	B026A	8	153.64	0.0043	0.004	0.68	0.04	0.06
H096-H095	H096	H095	8	85.04	0.0025	0.004	0.56	0.05	0.07
H097-B003	H097	B003	8	373.62	0.0024	0.015	0.82	0.09	0.14
H098-H097	H098	H097	8	166.59	0.0024	0.004	0.55	0.05	0.07
H099-H097	H099	H097	8	267.45	0.0151	0.007	1.23	0.04	0.06
H100-H099	H100	H099	8	148.76	0.0176	0.001	0.76	0.02	0.03
H101-H074	H101	H074	8	224.48	0.0020	0.003	0.49	0.05	0.07
H102-B001	H102	B001	8	198.54	0.0060	0.003	0.72	0.04	0.05
H103-H099	H103	H099	8	165.05	0.0070	0.004	0.83	0.04	0.06
H105-H024	H105	H024	10	300.94	0.0013	0.204	1.38	0.36	0.44
H106-H052	H106	H052	10	141.56	0.0011	0.079	1.00	0.23	0.28
H107-B005	H107	B005	8	284.80	0.0051	0.004	0.69	0.04	0.06
1001-1018	1001	1018	21	12.41	0.0073	1.255	3.99	0.45	0.26
1002-1001	1002	1001	12	343.56	0.0073	0.060	1.12	0.16	0.16
1003-1002	1002	1001	12	300.48	0.0020	0.060	1.11	0.16	0.16
1003-1002	1003	1002	12	300.48	0.0020	0.000	1.11	0.10	0.10

Model Results - Future Peak Wet Weather Flow (PWWF) Scenario

	Fram		el Results - Futui		veuther 110			Water Doubh	
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
1004-1003	1004	1003	12	351.75	0.0029	0.060	1.27	0.15	0.15
1005-1004	1005	1004	12	323.79	0.0020	0.042	0.99	0.14	0.14
1006-1005	1006	1005	12	4.86	0.0021	0.019	0.80	0.09	0.09
1007-1006	1007	1006	12	324.77	0.0020	0.019	0.79	0.09	0.09
1008-1007	1008	1007	12	135.46	0.0018	0.004	0.47	0.05	0.05
1009-1008	1009	1008	12	184.21	0.0021	0.000	0.00	0.00	0.00
1009-1023	1009	1023	12	10.72	0.0028	0.334	2.05	0.36	0.36
1010-1023	1010	1023	21	14.45	0.0021	1.974	2.88	0.79	0.45
1011-1010	1011	1010	10	330.03	0.0037	0.066	1.45	0.16	0.19
1012-1001	1012	1001	15	8.49	-0.0059	1.195	1.51	1.25	1.00
1013-1012	1013	1012	15	343.95	0.0017	0.976	2.25	0.67	0.54
1014-1013	1014	1013	15	351.61	0.0017	0.869	2.18	0.63	0.50
1015-1014	1015	1014	15	69.58	0.0017	0.869	2.19	0.62	0.50
I016A-I016	I016A	1016	15	350.07	0.0015	0.849	2.07	0.64	0.51
I016B-I016A	I016B	I016A	15	68.68	0.0015	0.849	2.04	0.65	0.52
1016-1015	1016	1015	15	278.72	0.0015	0.849	2.07	0.64	0.51
I017A-I017	I017A	1017	15	288.74	0.0015	0.700	1.98	0.57	0.46
I017B-I016B	I017B	I016B	15	248.61	0.0015	0.849	2.06	0.64	0.51
I017-I017B	1017	I017B	15	322.02	0.0015	0.849	2.07	0.64	0.51
1019-1018	1019	1018	24	534.85	0.0015	3.377	2.93	1.11	0.55
1020-1019	1020	1019	24	460.59	0.0013	3.377	2.76	1.16	0.58
1021-1006	1021	1006	12	11.22	0.0006	0.000	0.00	0.00	0.00
1021-1020	1021	1020	24	329.35	0.0018	3.355	3.10	1.05	0.53
1022-1021	1022	1021	21	458.96	0.0014	3.037	2.77	1.16	0.66
1023-1022	1023	1022	21	185.80	0.0014	2.995	2.73	1.16	0.66
1024-1023	1024	1023	12	411.81	0.0036	0.687	2.73	0.50	0.50
1025-1004	1025	1004	8	318.34	0.0024	0.018	0.87	0.10	0.15
1026-1025	1026	1025	8	331.20	0.0024	0.010	0.72	0.07	0.11
1027-1026	1027	1026	8	341.53	0.0024	0.007	0.67	0.06	0.10
1028-1027	1028	1027	8	125.19	0.0090	0.004	0.89	0.04	0.05
1029-1005	1029	1005	8	316.51	0.0024	0.023	0.93	0.11	0.17
1030-1029	1030	1029	8	329.03	0.0024	0.017	0.86	0.10	0.15
1031-1030	1031	1030	8	330.33	0.0024	0.010	0.72	0.07	0.11
1032-1031	1032	1031	8	202.53	0.0024	0.004	0.56	0.05	0.07
1033-1007	1033	1007	8	314.33	0.0024	0.015	0.83	0.09	0.14
1034-1033	1034	1033	8	329.41	0.0024	0.015	0.83	0.09	0.14
1035-1034	1035	1034	8	331.58	0.0024		0.73	0.07	0.11
1036-1035	1036	1035	8	265.34	0.0023	0.005	0.78	0.05	0.08
1037-1009	1037	1009	12	314.91	0.0013	0.330	1.55	0.44	0.44
1038-1037	1038	1037	12	336.29	0.0022	0.328	1.87	0.38	0.38
1039-1038	1039	1038	12	325.20	0.0019	0.325	1.76	0.39	0.39
1040-1039	1040	1039	12	255.16	0.0018	0.323	1.74	0.39	0.39
1041-1040	1041	1040	12	405.24	0.0018	0.320	1.73	0.39	0.39
1042-1041	1042	1041	12	59.91	0.0024	0.320	1.92	0.36	0.36
1043-1042	1042	1041	12	273.24	0.0024	0.251	1.79	0.32	0.32
1044-1043	1043	1042	12	317.06	0.0024	0.231	1.73	0.32	0.32
1045-1009	1045	1009	12	300.87	0.0012	0.003	0.47	0.04	0.04
1046-1045	1046	1045	12	309.89	0.0021	0.003	0.47	0.04	0.04
1046-1045	1046	1045	12	326.42	0.0021	0.003	0.48	0.04	0.04
1047-1046	1047	1046	12	273.76	0.0020	0.003	0.47	0.04	0.04
1048-1047	1048	1047	12	411.14	0.0024	0.003	0.30	0.04	0.04
1050-1048	1049	1048	12	342.23	0.0016	0.003	0.43	0.04	0.04
1050-1049	1050	1049	12	342.23	0.0020	0.003	0.47	0.04	0.04
		1042						0.04	
1052-1042	1052		8	89.58	0.0036	0.068	1.48		0.26
1053-1052	1053	1052	8	157.22	0.0024	0.068	1.28	0.19	0.29
1054-1053	1054	1053	8	365.30	0.0024	0.011	0.76	0.08	0.12

Model Results - Future Peak Wet Weather Flow (PWWF) Scenario

Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
Ріре і	ID	ID	(inches)	(feet)	Siope	(MGD)	(ft/s)	(feet)	u/D
1055-1054	1055	1054	8	197.30	0.0024	0.007	0.66	0.06	0.09
1056-1055	1056	1055	8	157.27	0.0024	0.004	0.53	0.05	0.07
1057-1056	1057	1056	8	121.50	0.0040	0.004	0.64	0.04	0.06
1058-1053	1058	1053	8	143.04	0.0024	0.049	1.16	0.16	0.24
1059-1058	1059	1058	8	206.48	0.0025	0.043	1.14	0.15	0.22
1060-1059	1060	1059	8	40.25	0.0025	0.041	1.12	0.15	0.22
1061-1060	1061	1060	8	112.20	0.0023	0.039	1.08	0.14	0.22
1062-1061	1062	1061	8	42.83	0.0210	0.039	2.34	0.08	0.13
1063-1062	1063	1062	8	124.59	0.0023	0.036	1.06	0.14	0.21
1064-1063	1064	1063	8	28.31	0.0035	0.036	1.22	0.13	0.19
1065-1064	1065	1064	8	110.72	0.0024	0.032	1.04	0.13	0.19
1066-1065	1066	1065	8	239.17	0.0024	0.026	0.97	0.12	0.18
1067-1066	1067	1066	8	200.61	0.0024	0.014	0.81	0.09	0.13
1068-1067	1068	1067	8	287.48	0.0039	0.005	0.70	0.05	0.07
1069-1054	1069	1054	8	149.46	0.0040	0.004	0.68	0.04	0.07
1070-1055	1070	1055	8	106.00	0.0040	0.004	0.64	0.04	0.06
1071-1058	1071	1058	8	16.37	0.0024	0.002	0.46	0.04	0.05
1072-1059	1072	1059	8	75.20	0.0024	0.002	0.45	0.03	0.05
1073-1066	1073	1066	8	185.87	0.0040	0.008	0.80	0.06	0.09
1074-1073	1074	1073	8	62.76	0.0024	0.005	0.58	0.05	0.08
1075-1073	1075	1073	8	69.34	0.0025	0.003	0.50	0.04	0.06
1076-1067	1076	1067	8	142.84	0.0037	0.005	0.68	0.05	0.07
1077-1076	1077	1076	8	66.32	0.0047	0.005	0.74	0.05	0.07
1078-1104	1078	1104	8	190.95	0.0036	0.173	1.93	0.28	0.42
1079-1078	1079	1078	8	241.08	0.0036	0.173	1.93	0.28	0.42
1080-1079	1080	1079	8	306.02	0.0115	0.026	1.67	0.08	0.12
1081-1080	1081	1080	8	304.94	0.0031	0.020	0.98	0.10	0.15
1082-1081	1082	1081	8	349.48	0.0037	0.015	0.96	0.08	0.12
1083-1082	1083	1082	8	197.65	0.0084	0.009	1.10	0.05	0.08
1084-1011	1084	1011	8	315.30	0.0036	0.015	0.95	0.08	0.12
1085-1084	1085	1084	8	330.76	0.0036	0.010	0.84	0.07	0.10
1086-1085	1086	1085	8	256.16	0.0036	0.005	0.68	0.05	0.07
1087-1013	1087	1013	8	45.32	0.0040	0.065	1.52	0.16	0.25
1088-1087	1088	1087	8	60.16	0.0815	0.065	4.39	0.08	0.12
1089-1088	1089	1088	8	191.60	0.0041	0.065	1.53	0.16	0.24
1090-1089	1090	1089	8	288.00	0.0048	0.013	1.01	0.07	0.11
1091-1089	1091	1089	8	222.07	0.0058	0.032	1.41	0.11	0.16
1092-1015	1092	1015	8	166.50	0.0171	0.020	1.80	0.07	0.10
1093-1092	1093	1092	8	229.14	0.0040	0.013	0.94	0.07	0.11
1094-1093	1094	1093	8	228.00	0.0040	0.010	0.87	0.07	0.10
1095-1092	1095	1092	8	360.95	0.0040	0.004	0.67	0.04	0.07
1096-1094	1096	1094	8	296.98	0.0060	0.003	0.67	0.03	0.05
1096-1095	1096	1095	8	333.17	0.0061	0.003	0.68	0.03	0.05
1098-1043	1098	1043	8	119.75	0.0023	0.003	0.48	0.04	0.06
1099-1034	1099	1034	8	120.83	0.0118	0.000	0.00	0.00	0.00
I102-I103	1102	1103	18	350.40	0.0015	1.724	2.47	0.88	0.59
1103-1104	1103	1104	18	325.41	0.0015	1.724	2.44	0.89	0.59
1104-1105	1104	1105	18	425.90	0.0020	1.898	2.80	0.86	0.57
1105-1106	I105	1106	18	234.72	0.0020	1.900	2.79	0.86	0.58
1106-1107	1106	1107	18	322.16	0.0021	1.900	2.85	0.85	0.57
1107-1108	1107	1108	18	337.56	0.0020	1.903	2.80	0.86	0.57
1108-1010	1108	1010	18	308.66	0.0020	1.905	2.82	0.86	0.57
J001-I011	J001	1011	10	303.57	0.0036	0.051	1.33	0.14	0.17
J002-J001	J002	J001	10	98.40	0.0037	0.029	1.13	0.11	0.13
J003-J002	J003	J002	10	258.16	0.0036	0.020	1.01	0.09	0.13
J004-J003	J003	J003	10	320.21	0.0036	0.000	0.00	0.00	0.00

Model Results - Future Peak Wet Weather Flow (PWWF) Scenario

	Fuere		Results - Futui		veather 110	,		Mater Doubh	
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
J004-J015	J004	J015	12	6.48	0.0031	0.436	2.29	0.40	0.40
J005-J004	J005	J004	10	264.92	0.0030	0.363	2.16	0.40	0.48
J006-J005	J006	J005	10	45.47	0.0026	0.358	2.06	0.41	0.49
J007-J006	J007	J006	10	168.40	0.0050	0.355	2.60	0.34	0.41
J008-J007	J008	J007	10	203.96	0.0024	0.355	1.98	0.42	0.51
J009-J008	J009	J008	10	329.72	0.0025	0.335	1.99	0.42	0.48
J010A-J010	J010A	J010	8	265.27	0.0100	0.006	1.00	0.40	0.06
J010A J010 J010B-J010A	J010A	J010A	8	247.90	0.0042	0.004	0.66	0.04	0.06
J010B-J010A J010-J009	J010B	J010A J009	10	201.30	0.0042	0.335	1.93	0.04	0.00
J010-J009 J011-J010	J010	J010	10	148.25	0.0025	0.333	1.97	0.41	0.49
J011-J010 J012-J011	J011 J012	J010 J011	10	350.80	0.0025	0.327	1.96	0.40	0.48
	1		•						
J013-I024	J013	1024	12	329.16	0.0037	0.687	2.75	0.49	0.49
J013-J002	J013	J002	8	8.36	0.0551	0.009	2.09	0.03	0.05
J014-J013	J014	J013	12	249.33	0.0035	0.441	2.41	0.39	0.39
J015-J014	J015	J014	12	327.85	0.0035	0.441	2.41	0.39	0.39
J016-K002	J016	K002	8	52.58	0.0171	0.006	1.24	0.04	0.06
J017-J016	J017	J016	8	149.18	0.0056	0.005	0.78	0.04	0.06
J018-J017	J018	J017	8	72.17	0.0058	0.004	0.75	0.04	0.06
J019-J018	J019	J018	8	288.63	0.0032	0.003	0.56	0.04	0.06
J020-J001	J020	J001	8	319.06	0.0055	0.022	1.23	0.09	0.13
J021-J020	J021	J020	8	328.97	0.0056	0.019	1.19	0.08	0.12
J022-J021	J022	J021	8	241.41	0.0057	0.016	1.13	0.07	0.11
J023-J003	J023	J003	8	321.77	0.0025	0.015	0.83	0.09	0.13
J024-J023	J024	J023	8	153.56	0.0015	0.010	0.62	0.08	0.13
J025-J024	J025	J024	8	172.31	0.0085	0.008	1.06	0.05	0.07
J026-J023	J026	J023	8	160.02	0.0041	0.003	0.58	0.03	0.05
J027-J004	J027	J004	8	15.20	0.0053	0.062	1.65	0.15	0.22
J028A-J004	J028A	J004	8	337.47	0.0142	0.007	1.23	0.04	0.06
J028-J027	J028	J027	8	309.10	0.0040	0.062	1.50	0.16	0.24
J029-J028	J029	J028	8	161.23	0.0030	0.059	1.33	0.17	0.25
J030-J029	J030	J029	8	232.61	0.0024	0.053	1.19	0.17	0.25
J031-J030	J031	J030	8	261.61	0.0020	0.038	1.02	0.15	0.22
J032-J031	J032	J031	8	332.51	0.0024	0.038	1.08	0.14	0.21
J033-J032	J033	J032	8	355.38	0.0024	0.034	1.04	0.13	0.20
J034-J033	J034	J033	8	362.99	0.0024	0.024	0.96	0.11	0.17
J035-J034	J035	J034	8	49.63	0.0202	0.020	1.90	0.06	0.09
J036-J035	J036	J035	8	352.08	0.0030	0.020	0.97	0.10	0.15
J037-J036	J037	J036	8	307.32	0.0024		0.81	0.09	0.13
J038-J037	J038	J037	8	153.47	0.0030		0.80	0.07	0.11
J039-J030	J039	J030	8	187.47	0.0025		0.84	0.09	0.14
J040-J039	J040	J039	8	250.60	0.0024		0.81	0.09	0.13
J041-J040	J041	J040	8	257.35	0.0024		0.74	0.08	0.12
J042-I079	J042	1079	8	302.12	0.0036		1.84	0.25	0.38
J043-J042	J043	J042	8	106.17	0.0036		1.78	0.24	0.36
J044-J043	J044	J043	8	246.14	0.0037	0.123	1.76	0.23	0.35
J044-J043 J045-J044	J044 J045	J043 J044	8	331.64	0.0037		1.58	0.19	0.33
J045-J044 J046-J045	J045 J046	J044 J045	8	101.06	0.0036		1.53	0.19	0.29
J046-J045 J047-J046	J046 J047	J045 J046	•	245.47	0.0036		0.94	0.18	0.28
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J048-J047	J048	J047	8	257.53	0.0024		0.81	0.09	0.13
J049-J048	J049	J048	8	350.19	0.0024		0.82	0.09	0.13
J050-J049	J050	J049	8	200.23	0.0024		0.65	0.06	0.09
J051-J044	J051	J044	8	302.97	0.0024		0.99	0.12	0.18
J052-J051	J052	J051	8	301.14	0.0024		0.91	0.10	0.16
J053-J052	J053	J052	8	353.90	0.0021		0.71	0.08	0.12
J054-J053	J054	J053	8	199.03	0.0024		0.66	0.06	0.09
J055-J052	J055	J052	8	155.51	0.0023	0.003	0.52	0.05	0.07

Model Results - Future Peak Wet Weather Flow (PWWF) Scenario

	_		el Results - Futui		veatner Fio				
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
J056-J044	J056	J044	8	386.06	0.0045	0.008	0.86	0.06	0.09
J057-J056	J057	J056	8	318.68	0.0027	0.003	0.52	0.04	0.06
J058-J057	J058	J057	8	224.51	0.0057	0.001	0.51	0.02	0.03
J059-J057	J059	J057	8	248.31	0.0037	0.001	0.40	0.02	0.03
J060-J042	J060	J042	8	300.82	0.0024	0.016	0.83	0.09	0.14
J061-J060	J061	J060	8	305.54	0.0023	0.010	0.72	0.08	0.11
J062-J061	J062	J061	8	350.99	0.0025	0.007	0.67	0.06	0.09
J063-J062	J063	J062	8	172.55	0.0024	0.004	0.53	0.04	0.07
J064-J043	J064	J043	8	302.05	0.0024	0.007	0.65	0.06	0.09
J065-J064	J065	J064	8	306.90	0.0023	0.006	0.60	0.06	0.09
J066-J065	J066	J065	8	347.83	0.0025	0.004	0.57	0.05	0.07
J067-J066	J067	J066	8	218.34	0.0023	0.001	0.39	0.03	0.04
J068-J046	J068	J046	8	330.39	0.0023	0.051	1.39	0.03	0.04
J069-J068	J069	J048	8	323.71	0.0038	0.031	1.10	0.13	0.22
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J070-J069	J070	J069	8	249.20	0.0026	0.023	0.97	0.11	0.16
J071-J070	J071	J070	8	253.87	0.0030	0.020	0.98	0.10	0.15
J072-J071	J072	J071	8	351.21	0.0060	0.008	0.93	0.05	0.08
J073-J072	J073	J072	8	100.47	0.0060	0.004	0.78	0.04	0.06
J074-J068	J074	J068	8	251.93	0.0052	0.025	1.25	0.10	0.14
J075-J074	J075	J074	8	255.17	0.0048	0.019	1.12	0.08	0.13
J076-J075	J076	J075	8	349.80	0.0048	0.014	1.02	0.07	0.11
J077-J076	J077	J076	8	198.72	0.0048	0.007	0.83	0.05	0.08
J078-K033	J078	K033	8	324.22	0.0020	0.016	0.79	0.10	0.15
J079-J078	J079	J078	8	326.03	0.0020	0.013	0.75	0.09	0.13
J080-J079	J080	J079	8	296.41	0.0020	0.008	0.65	0.07	0.11
J081-J052	J081	J052	8	157.65	0.0024	0.004	0.53	0.05	0.07
J082-J080	J082	1080	8	26.47	0.0053	0.004	0.72	0.04	0.06
K001-J012	K001	J012	10	339.69	0.0029	0.323	2.08	0.38	0.45
K002-K001	K002	K001	8	65.28	0.0075	0.155	2.44	0.22	0.33
K003-K002	K003	K002	8	25.30	0.0079	0.149	2.46	0.21	0.31
K004-K003	K004	K003	8	313.97	0.0140	0.055	2.26	0.11	0.17
K005-K004	K005	K004	8	319.73	0.0040	0.049	1.40	0.14	0.21
K006-K003	K006	K003	8	214.91	0.0032	0.094	1.55	0.21	0.31
K007A-K007	K007A	K007	8	406.37	0.0039	0.077	1.59	0.18	0.27
K007-K006	K007	K006	8	208.69	0.0032	0.094	1.55	0.21	0.31
K008-K007	К008	K007	8	263.04	0.0032	0.009	0.78	0.07	0.10
K009-K008	К009	K008	8	285.58	0.0032	0.006	0.67	0.05	0.08
K010-E010	K010	E010	8	133.52	0.0027	0.085	1.43	0.21	0.31
K011-K010	K011	K010	8	308.30	0.0024	0.081	1.35	0.21	0.31
K012-K011	K012	K011	8	202.46	0.0024	0.057	1.22	0.17	0.26
K013-K012	K013	K012	8	20.61	0.0029	0.055	1.29	0.16	
K014-K013	K014	K013	8	140.37	0.0024	0.035	1.05	0.14	
K015-K014	K015	K014	8	133.12	0.0025	0.034	1.06	0.13	
K016-K015	K016	K015	8	128.02	0.0024	0.031	1.02	0.13	0.19
K010 K015 K017-K016	K017	K015	8	301.15	0.0024	0.031	1.02	0.13	
K017-K010 K018-K017	K017	K010	8	298.64	0.0024	0.031	0.92	0.13	0.19
K018-K017 K019-K018									
	K019	K018	8	278.75	0.0181	0.012	1.56	0.05	0.08
K020-K013	K020	K013	8	359.70	0.0034	0.018	0.98	0.09	0.14
K021-K020	K021	K020	8	358.42	0.0034	0.013	0.89	0.08	0.12
K022-K021	K022	K021	8	361.29	0.0100	0.007	1.09	0.05	0.07
K023-K024	K023	K024	8	288.48	0.0032	0.009	0.79	0.07	0.10
K024-K025	K024	K025	8	282.86	0.0032	0.014	0.90	0.08	
K025-K011	K025	K011	8	290.40	0.0032	0.019	0.97	0.09	
K026-K025	K026	K025	8	201.10	0.0032	0.001	0.42	0.03	
K027-K024	K027	K024	8	197.24	0.0033	0.002	0.52	0.03	
K028-K023	K028	K023	8	201.74	0.0032	0.003	0.53	0.04	0.05

Model Results - Future Peak Wet Weather Flow (PWWF) Scenario

	From	То	Diameter	Length		Flow	Velocity	Water Depth	
Pipe ID	ID	ID	(inches)	(feet)	Slope	(MGD)	(ft/s)	(feet)	d/D
K029-E012	K029	E012	8	287.92	0.0031	0.010	0.79	0.07	0.10
K030-E001	K030	E001	8	191.67	0.0020	0.034	0.98	0.14	0.21
K031-K030	K031	K030	8	195.96	0.0036	0.031	1.18	0.12	0.17
K032-K031	K032	K031	8	153.65	0.0046	0.031	1.28	0.11	0.16
K033-K032	K033	K032	8	349.69	0.0006	0.018	0.53	0.14	0.21
K034-K813	K034	K813	8	316.89	0.0027	0.032	1.07	0.13	0.19
K035-K034	K035	K034	8	284.42	0.0043	0.032	1.27	0.11	0.17
K036-K035	K036	K035	8	282.79	0.0041	0.032	1.24	0.11	0.17
K039-J038	K039	J038	8	69.67	0.0040	0.010	0.88	0.07	0.10
K040-K039	K040	K039	8	253.98	0.0045	0.008	0.85	0.06	0.09
K812-L032	K812	L032	8	318.40	0.0038	0.032	1.22	0.12	0.17
K813-K812	K813	K812	8	339.95	0.0052	0.032	1.35	0.11	0.16
L001A-L001	L001A	L001	8	128.50	0.0086	0.002	0.69	0.03	0.04
L001-L002	L001	L002	8	252.90	0.0055	0.033	1.40	0.11	0.16
L002-L003	L002	L003	8	177.56	0.0094	0.033	1.68	0.10	0.14
L003-K806	L003	K806	8	129.94	0.0031	0.047	1.26	0.15	0.22
L010-L032	L010	L032	8	299.86	0.0018	0.019	0.80	0.11	0.16
L011-L010	L011	L010	8	104.63	0.0030	0.019	0.95	0.10	0.14
L012-L011	L012	L011	8	94.44	0.0037	0.013	0.92	0.08	0.11
L013-F011	L013	F011	8	206.45	0.0032	0.007	0.71	0.06	0.09
L014-K023	L014	K023	8	305.05	0.0096	0.004	0.90	0.04	0.05
L015-L014	L015	L014	8	201.37	0.0032	0.002	0.49	0.03	0.05
L016-L001	L016	L001	8	453.04	0.0070	0.018	1.27	0.08	0.12
L017-L003	L017	L003	8	140.50	0.0040	0.014	0.96	0.08	0.11
L018-L017	L018	L017	8	156.46	0.0041	0.014	0.97	0.08	0.11
L019-L018	L019	L018	8	163.83	0.0075	0.014	1.19	0.07	0.10
L020-L803	L020	L803	8	211.78	0.0024	0.102	1.44	0.23	0.35
L021-L020	L021	L020	8	211.19	0.0023	0.010	0.71	0.07	0.11
L022-L021	L022	L021	8	64.73	0.0029	0.003	0.56	0.04	0.06
L023-L020	L023	L020	8	338.77	0.0024	0.085	1.36	0.21	0.32
L024-L023	L024	L023	8	207.76	0.0024	0.069	1.28	0.19	0.29
L025-L024	L025	L024	8	67.35	0.0336	0.064	3.21	0.10	0.14
L026-L025	L026	L025	8	110.72	0.0098	0.064	2.08	0.13	0.20
L027-L026	L027	L026	8	289.85	0.0383	0.016	2.20	0.05	0.07
L028-L027	L028	L027	8	90.64	0.0097	0.016	1.37	0.07	0.10
L029-L026	L029	L026	8	326.23	0.0022	0.027	0.95	0.12	0.19
L030-L029	L030	L029	8	346.29	0.0040	0.023	1.12	0.10	0.15
L031A-L031	L031A	L031	8	321.18	0.0034	0.008	0.76		0.09
L031B-L031A	L031B	L031A	8	232.58	0.0047	0.003	0.67	0.04	0.06
L031-L023	L031	L023	8	28.42	0.0795	0.016	2.84	0.04	0.06
L032-L032A	L032	L032A	8	48.96	0.1007	0.051	4.41	0.07	0.10
L803-L007	L803	L007	8	196.58	0.0124	0.109	2.64		0.24
L804-L803	L804	L803	8	118.93	0.0119	0.007	1.12	0.04	0.06
L805-L804	L805	L804	8	322.07	0.0020	0.007	0.60		0.10
L806-L805	L806	L805	8	318.88	0.0020	0.003	0.47	0.04	0.06
M001-H023	M001	H023	8	79.52	0.0021	0.140	1.50		0.43
M002-M001	M002	M001	8	250.41	0.0024	0.137	1.56	0.28	0.41
M003-M002	M003	M002	8	297.92	0.0024	0.129	1.52	0.27	0.40
M004-M003	M004	M003	8	103.43	0.0044	0.126	1.89	0.22	0.34
M005-M004	M005	M004	8	230.63	0.0023	0.116	1.48	0.25	0.38
M006-M005	M006	M005	8	359.65	0.0103	0.026	1.63	0.08	0.12
M007-M006	M007	M006	8	91.46	0.0040	0.020	1.08	0.09	0.14
M008-M007	M008	M007	8	59.49	0.0414	0.006	1.68		0.04
M009-M007	M009	M007	8	162.34	0.0029	0.014	0.86	0.08	0.13
M010-M009	M010	M009	8	213.81	0.0023	0.011	0.75		0.12
M011-M010	M011	M010	8	328.18	0.0024	0.008	0.67	0.06	0.10

Model Results - Future Peak Wet Weather Flow (PWWF) Scenario

			el Results - Futui	-	veuther 110			W. I B II.	
Pipe ID	From	То	Diameter	Length	Slope	Flow (MGD)	Velocity	Water Depth	d/D
M012 M011	M012	M011	(inches)	(feet) 120.73	0.0051	0.008	(ft/s) 0.87	(feet) 0.05	0.00
M012-M011	1	1	8						0.08
M013-M004	M013 M014	M004 M013	8	249.71 78.79	0.0305	0.006 0.002	1.54 0.52	0.03	0.05 0.04
M014-M013			-	+					
M015-M008	M015	M008	8	98.83	0.0065	0.006	0.88	0.05	0.07
M016-M005	M016	M005	8	66.98	0.0023	0.088	1.36	0.22	0.33
M017-M016	M017	M016	8	65.41	0.0023	0.086	1.35	0.22	0.33
M018-M017	M018	M017	8	238.51	0.0020	0.037	1.01	0.15	0.22
M019-M018	M019	M018	8	114.29	0.0024	0.006	0.61	0.06	0.09
M020-M019	M020	M019	8	29.32	0.1214	0.006	2.42	0.02	0.03
M021-M020	M021	M020	8	147.14	0.0040	0.006	0.74	0.05	0.08
M022-M017	M022	M017	8	216.73	0.0023	0.041	1.10	0.15	0.22
M023-M022	M023	M022	8	197.36	0.0024	0.036	1.07	0.14	0.21
M024-M023	M024	M023	8	242.75	0.0021	0.028	0.95	0.13	0.19
M025-M024	M025	M024	8	88.29	0.0399	0.003	1.36	0.02	0.03
M026-M024	M026	M024	8	85.67	0.0369	0.003	1.27	0.02	0.03
M027-M024	M027	M024	8	177.64	0.0025	0.022	0.94	0.11	0.16
M028-M027	M028	M027	8	80.26	0.0021	0.022	0.88	0.11	0.17
M029-M028	M029	M028	8	37.28	0.0026	0.020	0.92	0.10	0.15
M030-M029	M030	M029	8	229.79	0.0024	0.010	0.73	0.07	0.11
M031-M030	M031	M030	8	209.57	0.0024	0.007	0.66	0.06	0.09
M032-M031	M032	M031	8	210.07	0.0024	0.004	0.55	0.05	0.07
M033-M028	M033	M028	8	80.18	0.0160	0.002	0.84	0.02	0.03
M034-M029	M034	M029	8	156.56	0.0040	0.006	0.76	0.05	0.08
M035-M034	M035	M034	8	98.20	0.0040	0.006	0.75	0.05	0.08
M036-M018	M036	M018	8	347.08	0.0024	0.022	0.93	0.11	0.16
M037-M036	M037	M036	8	127.11	0.0290	0.003	1.24	0.02	0.04
M038-M036	M038	M036	8	207.42	0.0024	0.014	0.82	0.09	0.13
M039-M038	M039	M038	8	225.51	0.0024	0.011	0.75	0.08	0.12
M040-M039	M040	M039	8	152.47	0.0040	0.008	0.82	0.06	0.09
M041-M040	M041	M040	8	125.91	0.0041	0.003	0.63	0.04	0.06
M042-M040	M042	M040	8	109.35	0.0039	0.002	0.57	0.03	0.05
M043-H028	M043	H028	8	304.74	0.0013	0.072	1.05	0.23	0.34
M044-M043	M044	M043	8	150.92	0.0020	0.022	0.86	0.11	0.17
M045-M044	M045	M044	8	32.88	0.0046	0.008	0.86	0.06	0.09
M046-M045	M046	M045	8	113.39	0.0053	0.008	0.91	0.06	0.08
M047-M046	M047	M046	8	111.85	0.0060	0.003	0.67	0.03	0.05
M048-M044	M048	M044	8	141.92	0.0044	0.014	1.00	0.08	0.11
M049-M048	M049	M048	8	68.54	0.0146	0.002	0.78	0.02	0.03
M050-M048	M050	M048	8	264.07	0.0039	0.005	0.72	0.05	0.07
M051-M050	M051	M050	8	91.85	0.0039	0.003	0.57	0.03	0.05
M052-M050	M052	M050	8	97.89	0.0039	0.003	0.59	0.04	0.05
M053-M043	M053	M043	8	162.96	0.0020	0.050	1.10	0.17	0.25
M054-M053	M054	M053	8	200.63	0.0020	0.043	1.05	0.16	0.24
M055-M054	M055	M054	8	175.18	0.0021	0.037	1.02	0.14	0.22
M056-M055	M056	M055	8	124.49	0.0024	0.022	0.92	0.11	0.16
M057-M056	M057	M056	8	130.65	0.0015	0.022	0.78	0.12	0.18
M058-M057	M058	M057	8	265.40	0.0025	0.022	0.93	0.11	0.16
M059-M058	M059	M058	8	172.11	0.0024	0.013	0.78	0.08	0.12
M060-M055	M060	M055	8	112.44	0.0023	0.014	0.80	0.09	0.13
M061-M060	M061	M060	8	112.44	0.0023	0.003	0.52	0.04	0.13
M062-M060	M062	M060	8	166.87	0.0024	0.003	0.69	0.04	0.10
M063-M062	M063	M062	8	50.55	0.0025	0.008	0.03	0.07	0.10
M064-M063	M064	M063	8	41.82	0.0025	0.008	0.70	0.07	0.10
M065-M064	M065	M064	8	58.79	0.0023	0.008	0.70	0.07	0.10
M066A-N092	M066A	N092	8	105.50	0.0023	0.008	2.63	0.07	0.10
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M066-M066A	M066	M066A	8	18.46	0.0157	0.012	1.47	0.05	0.08

Model Results - Future Peak Wet Weather Flow (PWWF) Scenario

	F		Results - Futur		veather 110			Matau Dauth	
Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
N4067 N4066	ID MOC7	MOCC	(inches)	(feet)	0.0000	(MGD)	(ft/s) 1.19	(feet)	0.00
M067-M066	M067	M066	8	351.06	0.0086	0.012		0.06	0.09
M068-N094	M068	N094	8	131.56	0.0017	0.083	1.19	0.23	0.35
M069-M068	M069	M068	8	68.75	0.0019	0.078	1.23	0.22	0.33
M070-M069	M070	M069	8	136.67	0.0020	0.068	1.20	0.20	0.30
M071-M070	M071	M070	8	141.35	0.0016	0.060	1.08	0.20	0.30
M072-M071	M072	M071	8	54.01	0.0020	0.060	1.17	0.19	0.28
M073-M072	M073	M072	8	44.37	0.0018	0.037	0.97	0.15	0.22
M074-M073	M074	M073	8	75.91	0.0018	0.025	0.88	0.12	0.19
M075-M074	M075	M074	8	149.71	0.0021	0.025	0.91	0.12	0.18
M076-M075	M076	M075	8	24.44	0.0021	0.019	0.83	0.10	0.16
M077-M076	M077	M076	8	178.24	0.0022	0.013	0.76	0.08	0.13
M078-M077	M078	M077	8	15.22	0.0046	0.003	0.65	0.04	0.06
M079-M078	M079	M078	8	103.98	0.0020	0.003	0.49	0.05	0.07
M080-M068	M080	M068	8	175.94	0.0205	0.004	1.17	0.03	0.04
M081-M070	M081	M070	8	39.12	0.0041	0.009	0.84	0.06	0.09
M082-M081	M082	M081	8	219.67	0.0040	0.004	0.64	0.04	0.06
M083-M082	M083	M082	8	122.25	0.0039	0.004	0.63	0.04	0.06
M084-M069	M084	M069	8	219.48	0.0041	0.010	0.88	0.07	0.10
M085-M084	M085	M084	8	325.40	0.0039	0.003	0.59	0.04	0.05
M086-M072	M086	M072	8	173.38	0.0040	0.023	1.12	0.10	0.15
M087-M086	M087	M086	8	279.92	0.0040	0.012	0.92	0.07	0.11
M088-M073	M088	M073	8	176.10	0.0040	0.004	0.64	0.04	0.06
M089-M075	M089	M075	8	132.74	0.0041	0.007	0.77	0.05	0.08
M090-M089	M090	M089	8	103.46	0.0041	0.004	0.66	0.04	0.06
M091-M089	M091	M089	8	85.87	0.0040	0.001	0.47	0.03	0.04
M092-M077	M092	M077	8	212.79	0.0024	0.009	0.72	0.07	0.11
M093-M092	M093	M092	8	169.76	0.0180	0.006	1.24	0.04	0.05
M094-M093	M094	M093	8	264.84	0.0024	0.004	0.53	0.05	0.07
M095-N013	M095	N013	8	392.43	0.0060	0.015	1.14	0.07	0.11
N002-N001	N002	N001	8	7.60	1.1124	0.019	7.54	0.02	0.04
N003-N002	N003	N002	8	140.56	0.0047	0.014	1.02	0.07	0.11
N004-N003	N004	N003	8	352.94	0.0040	0.014	0.97	0.08	0.12
N008-N002	N008	N002	8	187.28	0.0040	0.005	0.71	0.05	0.07
N009-N010	N009	N010	8	397.32	0.0087	0.001	0.59	0.02	0.03
N010-N006	N010	N006	8	6.12	0.9820	0.009	5.73	0.02	0.03
N011-N012	N011	N012	8	146.81	0.0070	0.002	0.68	0.03	0.04
N012-N007	N012	N007	8	10.94	0.0923	0.023	3.33	0.05	0.07
N013-N012	N013	N012	8	89.48	0.0192	0.020	1.87	0.06	0.09
N014-N013	N014	N013	8	82.82	0.0069	0.005	0.85	0.04	0.06
N015-N014	N015	N014	8	121.18	0.0120	0.003	0.85	0.03	0.04
N017-N018	N017	N018	8	142.82	0.0039	0.002	0.50	0.03	0.04
N018-N092	N018	N092	8	56.41	0.0452	0.020	2.49	0.05	0.08
N019-N018	N019	N018	8	177.21	0.0032	0.009	0.79	0.07	0.10
N020-N019	N020	N019	8	360.42	0.0033	0.009	0.80	0.07	0.10
N021-N018	N021	N018	8	138.34	0.0099	0.009	1.14	0.05	0.07
N022-N021	N022	N021	8	348.23	0.0032	0.008	0.75	0.06	0.09
N023-N022	N023	N022	8	302.26	0.0033	0.005	0.64	0.05	0.07
N024-I021	N024	1021	12	151.95	0.0026		1.96	0.36	0.36
N025-N024	N025	N024	15	102.82	0.0009		1.29	0.42	0.34
N026-N025	N026	N025	15	129.78	0.0008		1.23	0.43	0.35
N027-N026	N027	N026	15	20.16	0.0010		1.34	0.40	0.32
N028-N027	N028	N027	15	115.95	0.0008		1.23	0.43	0.34
N029-N028	N029	N028	15	28.33	0.0011	0.294	1.37	0.39	0.32
N030-N029	N030	N029	15	133.58	0.0008		1.25	0.42	0.34
N031-N030	N031	N030	15	95.83	0.0009	0.291	1.31	0.40	0.32
N032-N095	N032	N095	12	130.65	0.0012	0.280	1.45	0.41	0.41
11077-11027	11032	11033	14	130.03	0.0012	0.200	1.43	0.41	0.41

Model Results - Future Peak Wet Weather Flow (PWWF) Scenario

D' ID	From	То	Diameter	Length		Flow	Velocity	Water Depth	1/5
Pipe ID	ID	ID	(inches)	(feet)	Slope	(MGD)	(ft/s)	(feet)	d/D
N033-N032	N033	N032	12	325.24	0.0012	0.272	1.42	0.40	0.40
N034-N033	N034	N033	12	295.68	0.0012	0.234	1.38	0.37	0.37
N035-N034	N035	N034	12	296.87	0.0012	0.225	1.34	0.36	0.36
N036-N035	N036	N035	12	291.04	0.0015	0.192	1.40	0.32	0.32
N037-N036	N037	N036	12	295.39	0.0014	0.164	1.29	0.30	0.30
N038-N037	N038	N037	12	328.67	0.0011	0.137	1.13	0.29	0.29
N039-N038	N039	N038	8	351.12	0.0021	0.027	0.93	0.12	0.18
N040-N039	N040	N039	8	350.04	0.0027	0.022	0.96	0.11	0.16
N041-N040	N041	N040	8	350.40	0.0024	0.016	0.83	0.09	0.14
N042-N041	N042	N041	8	351.89	0.0024	0.009	0.70	0.07	0.11
N043-N042	N043	N042	8	155.63	0.0040	0.003	0.62	0.04	0.06
N044-N024	N044	N024	8	188.69	0.0038	0.013	0.93	0.08	0.12
N045-N044	N045	N044	8	120.12	0.0036	0.011	0.86	0.07	0.11
N046-N045	N046	N045	8	33.87	0.0033	0.009	0.78	0.07	0.10
N047-N046	N047	N046	8	113.01	0.0037	0.008	0.78	0.06	0.09
N048-N047	N048	N047	8	16.67	0.0036	0.005	0.70	0.05	0.08
N049-N048	N049	N048	8	144.14	0.0040	0.004	0.65	0.04	0.06
N050-N049	N050	N049	8	171.77	0.0038	0.001	0.38	0.02	0.03
N051-N025	N051	N025	8	83.97	0.0811	0.002	1.59	0.02	0.02
N052-N026	N052	N026	8	98.61	0.0484	0.002	1.30	0.02	0.03
N053-N027	N053	N027	8	85.84	0.0417	0.001	1.07	0.01	0.02
N054-N028	N054	N028	8	97.27	0.0358	0.002	1.18	0.02	0.03
N055-N029	N055	N029	8	83.87	0.0352	0.002	1.09	0.02	0.03
N056-N030	N056	N030	8	84.03	0.0331	0.002	1.08	0.02	0.03
N057-N033	N057	N033	8	290.98	0.0024	0.035	1.06	0.14	0.20
N058-N057	N058	N057	8	305.40	0.0024	0.027	0.98	0.12	0.18
N059-N058	N059	N058	8	308.21	0.0024	0.019	0.89	0.10	0.15
N060-N059	N060	N059	8	323.69	0.0024	0.015	0.82	0.09	0.13
N061-N060	N061	N060	8	90.73	0.0072	0.011	1.11	0.06	0.09
N062-N061	N062	N061	8	245.20	0.0022	0.007	0.65	0.07	0.10
N063-N062	N063	N062	8	231.82	0.0026	0.003	0.51	0.04	0.06
N064-N034	N064	N034	8	352.38	0.0047	0.009	0.90	0.06	0.09
N065-N064	N065	N064	8	192.34	0.0037	0.003	0.59	0.04	0.06
N066-N035	N066	N035	8	349.57	0.0024	0.027	0.98	0.12	0.18
N067-N066	N067	N066	8	351.73	0.0025	0.022	0.93	0.11	0.16
N068-N067	N068	N067	8	349.04	0.0024	0.015	0.83	0.09	0.14
N069-N068	N069	N068	8	349.92	0.0024	0.009	0.70	0.07	0.10
N070-N069	N070	N069	8	110.69	0.0024	0.003	0.49	0.04	0.06
N071-N036	N071	N036	8	351.14	0.0024	0.029	1.00	0.12	0.19
N072-N071	N072	N071	8	349.04	0.0024	0.022	0.92	0.11	0.16
N073-N072	N073	N072	8	350.89	0.0024	0.015	0.83	0.09	0.14
N074-N073	N074	N073	8	349.96	0.0024	0.009	0.70		0.10
N075-N074	N075	N074	8	121.01	0.0024	0.002	0.46		0.05
N076-N037	N076	N037	8	351.74	0.0024	0.027	0.98	0.12	0.18
N077-N076	N077	N076	8	350.59	0.0024	0.021	0.91	0.11	0.16
N078-N077	N078	N077	8	348.52	0.0024	0.015	0.82	0.09	0.13
N079-N078	N079	N078	8	348.41	0.0024	0.009	0.70	0.07	0.10
N080-N079	N080	N079	8	164.51	0.0024	0.003	0.52	0.04	0.07
N081-N044	N081	N044	8	48.75	0.0851	0.002	1.64	0.02	0.02
N082-N045	N082	N045	8	91.95	0.0302	0.002	1.11	0.02	0.03
N083-N046	N083	N046	8	49.33	0.0470	0.001	1.12	0.01	0.02
N084-N047	N084	N047	8	97.62	0.0163	0.002	0.90	0.02	0.03
N085-N048	N085	N048	8	45.43	0.0315	0.001	1.00	0.02	0.02
N086-N049	N086	N049	8	45.57	0.0033	0.001	0.44	0.03	0.04
N087-N057	N087	N057	8	228.58	0.0037	0.006	0.73	0.05	0.08
N088-N058	N088	N058	8	123.56	0.0047	0.004	0.72	0.04	0.06

Model Results - Future Peak Wet Weather Flow (PWWF) Scenario

Pipe ID From ID To ID Diameter (inches) Length (feet) Slope Flow (MGD) V N089-I022 N089 I022 8 360.33 0.0025 0.041 N090-N089 N090 N089 8 296.23 0.0024 0.024 N091-N090 N091 N090 8 195.08 0.0032 0.024 N095-N096 N095 N096 12 316.95 0.0012 0.289	/elocity (ft/s) 1.12	Water Depth (feet)	d/D
N089-I022 N089 I022 8 360.33 0.0025 0.041 N090-N089 N090 N089 8 296.23 0.0024 0.024 N091-N090 N091 N090 8 195.08 0.0032 0.024	• •	(leet)	
N090-N089 N090 N089 8 296.23 0.0024 0.024 N091-N090 N091 N090 8 195.08 0.0032 0.024	1.12	0.15	0.22
N091-N090 N091 N090 8 195.08 0.0032 0.024	0.95	0.13	0.22
	1.06	0.11	0.17
12 310.95 12 12 0.0012	1.45	0.11	
N096-N097 N096 N097 15 10.82 0.0011 0.289	1.45	0.42	0.42
N096-N097 N096 N097 15 10.82 0.0011 0.289 N097-N031 N097 N031 15 69.55 0.0007 0.289	1.19	0.39	0.31
N098-N010 N098 N010 8 199.26 0.0086 0.005	0.94	0.04	0.06
N099-N008 N099 N008 8 45.44 0.0046 0.003	0.65	0.04	0.06
0001-0032 0001 0032 8 352.39 0.0024 0.245 0003-0004 0003-0004 0004 <td>1.80</td> <td>0.39</td> <td>0.58</td>	1.80	0.39	0.58
0002-0001 0002 0001 8 357.97 0.0024 0.231	1.76	0.38	0.56
0003-0002 0003 0002 8 339.74 0.0025 0.227 0004-0003 0004 0003 0 446.63 0.0034 0.034	1.79	0.37	0.55
0004-0003 0004 0003 8 116.62 0.0021 0.217	1.65	0.38	0.56
0005-0004 0005 0004 8 231.69 0.0026 0.014	0.83	0.09	0.13
0006-0005 0006 0005 8 309.84 0.0025 0.014	0.82	0.09	0.13
0007-0006 0007 0006 8 201.12 0.0024 0.014	0.80	0.09	0.13
0008-0007 0008 0007 8 200.99 0.0026 0.010	0.75	0.07	0.11
0009A-0004 0009A 0004 8 86.35 0.0029 0.203	1.85	0.33	0.49
O009-O009A O009 O009A 8 116.52 0.0022 0.203	1.65	0.36	0.54
0012-0133 0012 0133 8 137.80 0.0023 0.137	1.52	0.28	0.42
0013-0012 0013 0012 8 117.21 0.0024 0.132	1.54	0.27	0.41
0014-0013 0014 0013 8 31.49 0.0035 0.091	1.59	0.20	0.30
O015A-0015 O015A 0015 8 139.99 0.0039 0.077	1.58	0.18	0.27
O015-0014 O015 O014 8 81.38 0.0042 0.091	1.70	0.19	0.29
O016A-0015A O016A 0015A 8 105.26 0.0034 0.077	1.50	0.19	0.28
O016-0016A O016 O016A 8 26.31 0.0027 0.077	1.39	0.20	0.29
0017-0031 0017 0031 8 276.21 0.0052 0.017	1.13	0.08	0.12
O018-0017 O018 O017 8 88.55 0.0022 0.013	0.76	0.09	0.13
O019-0018 O019 O018 8 165.32 0.0022 0.005	0.56	0.05	0.08
O020-0018 O020 O018 8 311.12 0.0024 0.007	0.66	0.06	0.10
O021-0016 O021 O016 8 177.54 0.0020 0.055	1.13	0.18	0.27
O022-0021 O022 O021 8 217.34 0.0024 0.053	1.20	0.17	0.25
O023-0022 O023 O022 8 250.45 0.0024 0.047	1.15	0.16	0.24
0024-0023 0024 0023 8 204.55 0.0023 0.014	0.79	0.09	0.13
O025-0024 O025 O024 8 272.79 0.0026 0.012	0.79	0.08	0.12
O026-0025 O026 O025 8 219.91 0.0023 0.007	0.66	0.07	0.10
O027-O026 O027 O026 8 226.94 0.0023 0.004	0.55	0.05	0.08
O028-O023 O028 O023 8 135.42 0.0038 0.031	1.20	0.11	0.17
O029-O013 O029 O013 8 259.61 0.0034 0.042	1.26	0.14	0.20
O030A-O029 O030A O029 8 138.32 0.0027 0.016	0.87	0.09	0.14
O030-O030A O030 O030A 8 109.69 0.0041 0.016	1.01	0.08	0.12
O031-O016 O031 O016 8 254.98 0.0060 0.022	1.27	0.09	0.13
0032-J013 0032 J013 8 341.01 0.0034 0.255	2.09	0.36	0.53
O133-O134A O133 O134A 8 117.79 0.0023 0.141	1.56	0.28	0.42
O134A-O134	1.58	0.28	0.42
0134-0136	1.61	0.29	0.43
0136-0138	1.92	0.30	0.45
0137-0136	1.24	0.13	0.20
O138-0009 O138 O009 8 84.73 0.0034 0.203	1.97	0.31	0.47
O139A-O138	1.12	0.07	0.11
O139-O139A	0.00		0.00
O140-O139A	0.00	0.00	0.00
0141-0140 0141 0140 6 87.24 0.0000 0.000	0.00	0.00	
0142-0140 0142 0140 8 164.07 0.0000 0.000	0.00	0.00	0.00
0143-0142 0143 0142 6 55.73 0.0000	0.00	0.00	0.00
0144-0142	0.00	0.00	0.00
,	2.63	0.18	

Model Results - Future Peak Wet Weather Flow (PWWF) Scenario

	Fuere		Results - Futui		veuther 110	,		Mater Denth	
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
R001-R802	R001	R802	8	251.84	0.0035	0.141	1.79	0.25	0.38
R002-R001	R002	R001	8	194.35	0.0024	0.141	1.58	0.28	0.42
R003-R002	R003	R002	8	359.63	0.0024	0.032	1.03	0.13	0.20
R004-R003	R004	R003	8	360.43	0.0024	0.026	0.97	0.12	0.18
R005-R004	R005	R004	8	361.12	0.0024	0.019	0.89	0.10	0.15
R006-R005	R006	R005	8	71.73	0.0335	0.013	1.98	0.04	0.07
R007-R006	R007	R006	8	349.15	0.0024	0.013	0.79	0.08	0.13
R008-R085	R008	R085	8	337.74	0.0025	0.007	0.65	0.06	0.09
R009-R008	R009	R008	8	351.82	0.0024	0.003	0.52	0.04	0.07
R010-R009	R010	R009	8	86.57	0.0029	0.001	0.33	0.02	0.03
R011-R804	R011	R804	15	399.04	0.0049	1.393	3.64	0.61	0.49
R012-R011	R012	R011	15	399.22	0.0029	1.393	2.98	0.71	0.57
R013-R012	R013	R012	15	397.24	0.0042	1.393	3.44	0.64	0.51
R014-R013	R014	R013	15	403.57	0.0042	1.393	3.43	0.64	0.51
R015-R014	R015	R014	15	399.25	0.0047	1.393	3.60	0.61	0.49
R016-S001	R016	S001	8	346.96	0.0019	0.006	0.56	0.06	0.09
R017-R002	R017	R002	8	290.61	0.0024	0.107	1.46	0.24	0.36
R018-R017	R018	R017	8	283.74	0.0024	0.087	1.37	0.22	0.32
R019-R018	R019	R018	8	350.31	0.0024	0.011	0.75	0.08	0.12
R020-R019	R020	R019	8	294.36	0.0024	0.005	0.61	0.06	0.08
R021-R017	R021	R017	8	355.97	0.0024	0.018	0.87	0.10	0.15
R022-R021	R022	R021	8	346.07	0.0024	0.013	0.79	0.08	0.13
R023-R022	R023	R022	8	342.82	0.0024	0.007	0.64	0.06	0.09
R024-R018	R024	R018	8	260.63	0.0024	0.071	1.30	0.20	0.29
R025-R024	R025	R024	8	272.39	0.0024	0.040	1.10	0.15	0.22
R026-R025	R026	R025	8	278.88	0.0024	0.026	0.97	0.12	0.18
R027-R026	R027	R026	8	276.07	0.0024		0.71	0.07	0.11
R028-R027	R028	R027	8	274.36	0.0024	0.005	0.60	0.06	0.08
R029-R028	R029	R028	8	273.49	0.0024	0.005	0.60	0.06	0.08
R030-R029	R030	R029	8	272.90	0.0024	0.003	0.49	0.04	0.06
R031-R024	R031	R024	8	299.50	0.0027	0.029	1.05	0.12	0.18
R032-R031	R032	R031	8	302.97	0.0024	0.025	0.96	0.12	0.17
R033-R032	R033	R032	8	245.20	0.0029	0.019	0.95	0.10	0.15
R034-R033	R034	R033	8	47.27	0.0021	0.017	0.82	0.10	0.15
R035-R034	R035	R034	8	286.00	0.0023	0.008	0.68	0.07	0.10
R036-R035	R036	R035	8	273.43	0.0025	0.008	0.69	0.07	0.10
R037-R036	R037	R036	8	286.46	0.0024	0.004	0.55	0.05	0.07
R038-R025	R038	R025	8	275.78	0.0024	0.011	0.74	0.08	0.11
R039-R038	R039	R038	8	276.39	0.0024	0.008	0.68	0.07	0.10
R040-R039	R040	R039	8	270.05	0.0024	0.005	0.61	0.06	0.08
R041-R026	R041	R026	8	275.80	0.0024	0.014	0.81	0.09	0.13
R042-R041	R042	R041	8	273.71	0.0024	0.011	0.75	0.08	0.11
R043-R042	R043	R042	8	274.41	0.0024	0.005	0.60	0.06	0.08
R044-N038	R044	N038	10	242.49	0.0012	0.105	1.11	0.26	0.31
R045-R044	R045	R044	10	242.06	0.0012	0.100	1.09	0.25	0.31
R046-R045	R046	R045	10	267.37	0.0008	0.061	0.80	0.22	0.27
R047-R046	R047	R046	10	61.50	0.0013	0.045	0.90	0.17	0.20
R048-R047	R048	R047	10	233.14	0.0012	0.030	0.78	0.14	0.17
R049-R048	R049	R048	10	57.28	0.0012	0.016	0.64	0.10	0.12
R050-R049	R050	R049	10	220.48	0.0012	0.002	0.35	0.04	0.05
R051-R045	R051	R045	8	319.96	0.0024	0.036	1.07	0.14	0.21
R052-R051	R052	R051	8	309.16	0.0024		0.99	0.12	0.18
R053-R052	R053	R052	8	311.92	0.0024		0.89	0.10	
R054-R053	R054	R053	8	316.77	0.0021	0.014	0.77	0.09	0.14
R055-R054	R055	R054	8	326.35	0.0024	0.005	0.61	0.05	0.08
R056-R055	R056	R055	8	271.45	0.0065	0.003	0.68	0.03	0.05

Model Results - Future Peak Wet Weather Flow (PWWF) Scenario

	F		Results - Futul		veather 110			Matau Dauth	
Pipe ID	From	То	Diameter	Length	Slope	Flow	Velocity	Water Depth	d/D
	ID	ID	(inches)	(feet)		(MGD)	(ft/s)	(feet)	2.22
R057-R051	R057	R051	8	203.40	0.0024	0.005	0.60	0.06	0.08
R058-R052	R058	R052	8	200.69	0.0029	0.005	0.65	0.05	0.08
R059-R053	R059	R053	8	200.67	0.0024	0.005	0.61	0.06	0.08
R060-R054	R060	R054	8	289.45	0.0214	0.005	1.30	0.03	0.05
R061-R083	R061	R083	8	345.01	0.0020	0.008	0.65	0.07	0.10
R062-R061	R062	R061	8	334.33	0.0020	0.008	0.64	0.07	0.11
R063-R087	R063	R087	8	178.43	0.0020	0.002	0.43	0.04	0.06
R064-R084	R064	R084	8	344.71	0.0020	0.011	0.71	0.08	0.12
R065-R064	R065	R064	8	335.34	0.0020	0.008	0.64	0.07	0.11
R066-R086	R066	R086	8	177.02	0.0020	0.002	0.44	0.04	0.06
R067-R048	R067	R048	8	348.37	0.0020	0.014	0.75	0.09	0.13
R068-R067	R068	R067	8	349.66	0.0020	0.011	0.70	0.08	0.12
R069-R068	R069	R068	8	349.57	0.0020	0.008	0.64	0.07	0.11
R070-R069	R070	R069	8	351.74	0.0020	0.005	0.55	0.06	0.08
R071-R049	R071	R049	8	348.46	0.0020	0.014	0.75	0.09	0.13
R072-R071	R072	R071	8	349.87	0.0020	0.011	0.71	0.08	0.12
R073-R072	R073	R072	8	351.64	0.0020	0.008	0.64	0.07	0.11
R074-R073	R074	R073	8	348.30	0.0020	0.005	0.55	0.05	0.08
R076-R075	R076	R075	8	37.90	0.0676	0.019	2.85	0.05	0.07
R077-R076	R077	R076	8	438.48	0.0038	0.006	0.75	0.05	0.08
R078-R077	R078	R077	8	287.88	0.0056	0.004	0.77	0.04	0.06
R079-R078	R079	R078	8	198.96	0.0040	0.004	0.68	0.04	0.07
R080-R076	R080	R076	8	233.86	0.0047	0.011	0.95	0.07	0.10
R081-R080	R081	R080	8	280.29	0.0034	0.009	0.80	0.06	0.10
R082-R081	R082	R081	8	350.63	0.0040	0.003	0.60	0.04	0.06
R083-R046	R083	R046	8	324.60	0.0020	0.011	0.71	0.08	0.12
R084-R047	R084	R047	8	352.68	0.0020	0.014	0.75	0.09	0.13
R085-R007	R085	R007	8	359.08	0.0023	0.010	0.72	0.07	0.11
R086-R065	R086	R065	8	338.68	0.0020	0.005	0.55	0.06	0.08
R087-R062	R087	R062	8	339.00	0.0020	0.005	0.55	0.06	0.08
R088-R074	R088	R074	8	155.65	0.0019	0.002	0.39	0.03	0.05
R089-R070	R089	R070	8	153.82	0.0020	0.002	0.39	0.03	0.05
R801A-R801	R801A	R801	8	331.58	0.0024	0.141	1.57	0.28	0.42
R801-R800	R801	R800	8	13.72	0.4110	1.534	19.55	0.25	0.38
R802-R801A	R802	R801A	8	329.36	0.0024	0.141	1.58	0.28	0.42
R803-R801	R803	R801	15	15.39	0.0325	1.393	7.26	0.36	0.29
R804-R803	R804	R803	15	399.94	0.0042	1.393	3.44	0.63	0.51
S001-W015	S001	W015	10	286.25	0.0022	0.007	0.62	0.06	0.07
S002-R015	S002	R015	15	226.30	0.0040	1.388	3.38	0.64	0.51
S003A-S003	S003A	S003	18	283.85	0.0017	1.158	2.33	0.67	0.45
S003-S002	S003	S002	18	228.18	0.0027	1.158	2.78	0.59	0.39
S004-S003A	S004	S003A	18	273.63	0.0030	1.114	2.85	0.56	0.37
S012-S002	S012	S002	10	330.72	0.0008	0.230	1.19	0.45	0.54
S013-S012	S013	S012	10	335.12	0.0010	0.225	1.27	0.42	0.50
S014-S013	S014	S013	10	319.75	0.0014	0.189	1.37	0.35	0.41
S015-S014	S015	S014	10	332.47	0.0016	0.163	1.38	0.31	0.37
S016-S015	S016	S015	10	325.11	0.0011	0.150	1.17	0.33	0.39
S017-S016	S017	S016	8	335.44	0.0025	0.018	0.88	0.10	0.15
S019-S018	S019	S018	8	121.45	0.0023	0.015	0.81	0.09	0.14
S020-S019	S020	S019	8	319.84	0.0024	0.011	0.74	0.08	0.12
S021-S812	S021	S812	8	332.92	0.0022	0.061	1.21	0.18	0.27
S022-S021	S022	S021	8	320.66	0.0018	0.041	1.01	0.16	0.23
S023-S022	S023	S022	8	319.57	0.0023	0.015	0.82	0.09	0.14
S024-S023	S024	S023	8	180.13	0.0018	0.008	0.60	0.07	0.10
S025-S022	S025	S022	8	327.51	0.0031	0.014	0.89	0.08	0.12
S026-S025	S026	S025	8	265.04	0.0325	0.006	1.56	0.03	0.05
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Model Results - Future Peak Wet Weather Flow (PWWF) Scenario

	From	То	Diameter		reacher 110	Flow	Velocity	Water Death	
Pipe ID	ID	ID	(inches)	Length (fact)	Slope	(MGD)	(ft/s)	Water Depth (feet)	d/D
S027-S030	S027	S030	8	(feet) 300.57	0.0045	0.008	0.85	0.06	0.00
	1	1	8						0.09
S029-S014	S029	S014		288.81	0.0093	0.019	1.41	0.07	0.11
S030-S021	S030	S021	8	239.80	0.0022	0.010	0.70	0.07	0.11
S811-S016	S811	S016	8	320.57	0.0023	0.122	1.48	0.26	0.39
S812-S811	S812	S811	8	318.28	0.0018	0.121	1.36	0.28	0.42
S813-S812	S813	S812	8	334.70	0.0030	0.018	0.94	0.09	0.14
S814-S813	S814	S813	8	305.88	0.0024	0.010	0.73	0.08	0.11
S815-S814	S815	S814	8	17.31	0.0480	0.010	2.08	0.04	0.06
S817-S812	S817	S812	8	324.55	0.0020	0.032	0.97	0.14	0.20
S818-S817	S818	S817	8	249.78	0.0012	0.002	0.33	0.04	0.06
S819-S818	S819	S818	8	21.21	0.0009	0.002	0.31	0.04	0.06
S820-S817	S820	S817	8	328.59	0.0043	0.021	1.12	0.09	0.14
V001-V800	V001	V800	21	321.67	0.0033	0.222	1.82	0.23	0.13
V002-OC03	V002	OC03	8	40.60	0.2098	0.219	8.79	0.11	0.17
V003-V002	V003	V002	8	7.81	0.0077	0.164	2.50	0.22	0.33
V004-V002	V004	V002	8	252.13	0.0070	0.055	1.76	0.13	0.20
V004-V003	V004	V003	8	226.01	0.0020	0.164	1.54	0.32	0.48
V005-V004	V005	V004	8	377.67	0.0020	0.181	1.56	0.34	0.51
V006-V005	V006	V005	8	375.04	0.0020	0.175	1.55	0.33	0.50
V007-V006	V007	V006	8	275.46	0.0020	0.134	1.46	0.28	0.43
V008-V007	V008	V007	8	269.33	0.0020	0.122	1.42	0.27	0.41
V009-V008	V009	V008	8	269.11	0.0020	0.108	1.36	0.26	0.38
V010-V009	V010	V009	8	272.90	0.0016	0.019	0.76	0.11	0.17
V011-V010	V011	V010	8	241.98	0.0024	0.012	0.78	0.08	0.12
V012-V004	V012	V004	8	204.18	0.0079	0.034	1.60	0.10	0.15
V013-V012	V013	V012	8	202.31	0.0021	0.030	0.96	0.13	0.20
V014-V013	V014	V012	8	378.25	0.0021	0.018	0.81	0.10	0.15
V014 V013 V015-V014	V014 V015	V013	8	347.44	0.0020	0.009	0.67	0.08	0.13
V015-V014 V016-V015	V015	V014 V015	8	227.75	0.0020	0.003	0.57	0.08	0.11
V010-V013 V017-V016	V010 V017	V015		237.50	0.0013	0.007	0.62	0.07	0.11
			8		0.0020	0.007	1.05		0.10
V018-V006	V018	V006	8	278.45				0.14	
V019-V018	V019	V018	8	273.69	0.0020	0.033	0.98	0.14	0.21
V020-V019	V020	V019	8	286.67	0.0020	0.028	0.93	0.13	0.19
V021-V020	V021	V020	8	107.40	0.0117	0.002	0.81	0.03	0.04
V022-V007	V022	V007	8	391.45	0.0020	0.009	0.66	0.07	0.11
V023-V022	V023	V022	8	388.78	0.0020	0.004	0.51	0.05	0.07
V024-V009	V024	V009	8	334.89	0.0020	0.087	1.28	0.23	0.34
V025-V010	V025	V010	8	213.17	0.0024	0.005	0.58	0.05	0.08
V027-OC07	V027	OC07	8	363.13	0.0181	0.141	3.25	0.16	0.25
V028-V027	V028	V027	8	392.19	0.0021	0.134	1.49	0.28	0.42
V029-OC04	V029	OC04	8	17.31	0.2899	0.170	9.13	0.09	0.14
V030-V029	V030	V029	8	169.97	0.0125	0.113	2.68	0.16	0.24
V031-V030	V031	V030	8	301.99	0.0020	0.063	1.18	0.19	0.29
V032-V031	V032	V031	8	525.05	0.0022	0.031	1.00	0.13	0.20
V033-V013	V033	V013	8	197.00	0.0023	0.007	0.65	0.06	0.09
V034-V033	V034	V033	8	198.55	0.0020	0.006	0.58	0.06	0.09
V035-V014	V035	V014	8	183.83	0.0026	0.005	0.61	0.05	0.08
V036-V020	V036	V020	8	279.62	0.0024	0.021	0.91	0.11	0.16
V800-Y812	V800	Y812	21	671.98	0.0016	0.222	1.39	0.28	0.16
V804-V008	V804	V008	8	392.85	0.0044	0.012	0.94	0.07	0.10
V806-V024	V806	V024	8	367.22	0.0045	0.082	1.70	0.18	0.27
V808-V806	V808	V806	8	158.48	0.0080	0.038	1.65	0.11	0.16
V809A-V808	V809A	V808	8	295.92	0.0030	0.038	1.17	0.13	0.20
V809-V809A	V809	V809A	8	18.49	0.0465	0.038	3.07	0.07	0.10
V812-V809	V812	V809	8	204.71	0.0027	0.038	1.13	0.14	0.21
V813-V812	V813	V812	8	381.88	0.0040	0.031	1.23	0.11	0.17
. 525 . 612	1.0-0	1	, ,	301.00	0.00 10	0.031	1.23	0.11	0.17

Model Results - Future Peak Wet Weather Flow (PWWF) Scenario

	From	To	Diameter	Length	vediner 110	Flow		Water Denth	
Pipe ID	ID			(feet)	Slope	(MGD)	Velocity	Water Depth	d/D
W003 OC00		OCOO	(inches)		0.0540		(ft/s)	(feet)	0.20
W002-OC09	W002	OC09	8	104.09	0.0549	0.362	6.32	0.20	0.30
W003-W002	W003	W002	8	363.56	0.0020	0.358 0.346	1.59	0.67 0.55	1.00
W004-W003	W004	W003	8	359.52	0.0020		1.77		0.82
W005-W004	W005	W004	8	338.50	0.0020	0.346	1.77	0.55	0.82
W006-OC09	W006	OC09	10	335.95	0.0017	0.488	1.86	0.58	0.70
W007-W006	W007	W006	10	328.62	0.0016	0.475	1.82	0.58	0.69
W008-W007	W008	W007	10	332.15	0.0016	0.464	1.78	0.58	0.69
W010-W008	W010	W008	8	164.00	0.0048	0.119	1.92	0.21	0.32
W011-W010	W011	W010	10	172.33	0.0031	0.110	1.57	0.21	0.25
W012-W011	W012	W011	10	336.40	0.0016	0.110	1.24	0.25	0.30
W013A-W013	W013A	W013	8	339.38	0.0020	0.044	1.06	0.16	0.24
W013-W012	W013	W012	10	245.70	0.0016	0.057	1.04	0.18	0.21
W014-W013	W014	W013	10	85.39	0.0016	0.013	0.67	0.09	0.10
W015-W014	W015	W014	10	333.82	0.0016	0.013	0.66	0.09	0.10
W016-W008	W016	W008	8	315.15	0.0096	0.105	2.38	0.17	0.25
W017-W016	W017	W016	8	191.32	0.0035	0.097	1.61	0.21	0.31
W018-W017	W018	W017	8	138.34	0.0038	0.092	1.65	0.20	0.30
W019-W018	W019	W018	8	144.93	0.0020	0.085	1.28	0.22	0.34
W020-W019	W020	W019	8	282.09	0.0021	0.050	1.13	0.17	0.25
W021-W020	W021	W020	8	316.64	0.0019	0.026	0.89	0.13	0.19
W022-W021	W022	W021	8	175.83	0.0021	0.012	0.73	0.08	0.13
W023-W019	W023	W019	8	297.30	0.0020	0.016	0.78	0.10	0.15
W024-W023	W024	W023	8	269.07	0.0020	0.008	0.65	0.07	0.11
W025-W024	W025	W024	8	296.38	0.0020	0.004	0.52	0.05	0.08
W026-W024	W026	W024	8	133.78	0.0027	0.004	0.59	0.05	0.07
W027-W009	W027	W009	8	306.80	0.0023	0.240	1.77	0.39	0.58
W028-W027	W028	W027	8	307.72	0.0020	0.236	1.66	0.40	0.60
W029-W028	W029	W028	8	182.55	0.0051	0.236	2.37	0.30	0.45
W030-W029	W030	W029	8	77.43	0.0021	0.020	0.86	0.11	0.16
W031-W030	W031	W030	8	280.12	0.0020	0.018	0.81	0.10	0.15
W032-W031	W032	W031	8	329.52	0.0020	0.013	0.74	0.09	0.13
W033-W032	W033	W032	8	233.99	0.0020	0.010	0.68	0.08	0.12
W034-W033	W034	W033	8	330.81	0.0020	0.005	0.57	0.06	0.09
W035-W034	W035	W034	8	66.47	0.0022	0.003	0.48	0.04	0.06
W036-W034	W036	W034	8	83.81	0.0020	0.003	0.46	0.04	0.06
W037-W029	W037	W029	8	140.65	0.0022	0.214	1.70	0.36	0.54
W038-W037	W038	W037	8	276.97	0.0020	0.134	1.45	0.29	0.43
W039-W038	W039	W038	8	273.40	0.0020	0.134	1.45	0.29	0.43
W040-W039	W040	W039	8	372.46	0.0020	0.126	1.42	0.28	0.42
W041-W040	W041	W040	8	247.19	0.0020	0.115	1.39	0.26	0.40
W042-W041	W042	W041	8	300.53	0.0020	0.112	1.38	0.26	0.39
W043-W042	W043	W042	8	108.50	0.0369	0.112	3.90	0.12	0.18
W044-W039	W044	W039	8	190.68	0.0039	0.004	0.65	0.04	0.06
W045-W040	W045	W040	8	147.93	0.0020	0.007	0.61	0.06	0.10
W046-W045	W046	W045	8	236.00	0.0020	0.005	0.56	0.06	0.08
W047-W037	W047	W037	8	176.63	0.0020	0.077	1.24	0.21	0.32
W048-W047	W048	W047	8	346.48	0.0020	0.075	1.24	0.21	0.31
W049-W048	W049	W048	8	347.76	0.0020	0.070	1.21	0.20	0.30
W050-W049	W050	W049	8	201.18	0.0020	0.013	0.74	0.09	0.13
W051-W050	W051	W050	8	295.25	0.0020	0.013	0.70	0.08	0.13
W052-W051	W051	W051	8	293.23	0.0020	0.011	0.70	0.06	0.12
W053-W052	W053	W052	8	82.71	0.0020	0.000	0.38	0.00	0.03
W054-W049	W054	W049	8	134.84	0.0031	0.002	1.49	0.03	0.04
W055-W054	W055	W054	8	350.69	0.0043	0.032	1.49	0.14	0.21
W056-W055	W056	W054 W055	8	300.89	0.0023	0.035	0.76	0.14	0.21
W056-W057	W056	W057	8	300.86	0.0024	0.010	0.72	0.07	0.11

Model Results - Future Peak Wet Weather Flow (PWWF) Scenario

	Fuere		Results - Futui		veuther 110	,		Water Dauth	
Pipe ID	From ID	To ID	Diameter (inches)	Length (feet)	Slope	Flow (MGD)	Velocity (ft/s)	Water Depth (feet)	d/D
Y001-Y806	Y001	Y802	8	323.27	0.0258	0.017	1.96	0.05	0.08
Y002-Y022	Y002	Y022	8	186.17	0.0047	0.017	1.08	0.08	0.12
Y003-Y002	Y003	Y002	8	129.16	0.0054	0.017	1.14	0.08	0.12
Y004-Y003	Y004	Y003	8	203.18	0.0053	0.017	1.13	0.08	0.12
Y005-Y806	Y005	Y806	8	337.49	0.0027	0.175	1.73	0.31	0.46
Y006-Y005	Y006	Y005	8	339.60	0.0027	0.175	1.76	0.30	0.45
Y007-Y006	Y007	Y006	8	150.72	0.0029	0.149	1.71	0.27	0.43
Y008-Y007	Y008	Y007	8	186.66	0.0029		1.65	0.27	0.41
Y009-Y008	Y009	Y008	8	225.62	0.0035	0.126	1.74	0.23	0.37
Y010-Y009	Y010	Y009	8	101.96	0.0033	0.126	1.19	0.24	0.30
Y010-1009 Y011-Y010	Y010	Y010	8	204.62	0.0029	0.041	1.19	0.14	0.21
		+							
Y012-Y011	Y012	Y011	8	140.10	0.0031	0.041	1.21	0.14	0.21
Y013-Y810	Y013	Y810	8	362.09	0.0031	0.059	1.35	0.17	0.25
Y014-Y013	Y014	Y013	8	345.76	0.0036		1.22	0.12	0.19
Y015-V030	Y015	V030	8	208.01	0.0202	0.019	1.88	0.06	0.09
Y016-Y015	Y016	Y015	8	218.23	0.0024	0.013	0.79	0.08	0.13
Y017-V031	Y017	V031	8	217.44	0.0075	0.018	1.30	0.08	0.11
Y018-Y017	Y018	Y017	8	207.25	0.0016	0.014	0.71	0.10	0.15
Y019-V032	Y019	V032	8	442.51	0.0074	0.019	1.31	0.08	0.12
Y020-V029	Y020	V029	8	25.90	0.0981	0.057	4.49	0.07	0.10
Y021-Y019	Y021	Y019	8	36.84	0.0312	0.009	1.70	0.04	0.06
Y022-Y001	Y022	Y001	8	86.46	0.0063	0.017	1.19	0.08	0.11
Y023-Y810	Y023	Y810	8	273.34	0.0018	0.000	0.00	0.00	0.00
Y024-Y014	Y024	Y014	8	296.48	0.0033	0.036	1.20	0.13	0.19
Y810-Y808	Y810	Y808	8	326.58	0.0026		1.38	0.20	0.30
Y811-Y809	Y811	Y809	12	148.65	0.0078	0.207	2.58	0.21	0.21
Z001-Z831	Z001	Z831	8	91.85	0.0072	0.131	2.29	0.20	0.30
Z002A-Z831	Z002A	Z831	10	394.36	0.0030	0.119	1.59	0.22	0.27
Z002-Z001	Z002	Z001	8	301.97	0.0017	0.131	1.35	0.30	0.44
Z003-Z002	Z003	Z002	8	62.09	0.0027	0.114	1.55	0.24	0.36
Z004-Z002A	Z004	Z002A	10	319.44	0.0020	0.119	1.38	0.24	0.29
Z004-Z003	Z004	Z003	8	251.02	0.0019	0.097	1.30	0.24	0.37
Z005-Z004	Z005	Z004	8	287.84	0.0020	0.073	1.22	0.21	0.31
Z006-Z005	Z006	Z005	8	273.44	0.0021	0.067	1.21	0.20	0.30
Z007-Z029	Z007	Z029	8	230.35	0.0020	0.168	1.54	0.33	0.49
Z008-Z007	Z008	Z007	8	357.48	0.0022	0.168	1.59	0.32	0.48
Z009-Z008	Z009	Z008	8	223.11	0.0021	0.150	1.51	0.30	0.45
Z010-Z009	Z010	Z009	8	112.84	0.0039	0.134	1.85	0.24	0.36
Z011-Z010	Z011	Z010	8	425.76	0.0040	0.134	1.86	0.24	0.36
Z012-Z011	Z012	Z011	8	18.21	0.0033	0.134	1.74	0.25	0.37
Z015-Z028	Z015	Z028	12	153.83	0.0026	0.207	1.74	0.28	0.28
Z016-Z800	Z016	Z800	8	303.39	0.0045	0.079	1.67	0.17	0.26
Z017-Z016	Z017	Z016	8	290.36	0.0003	0.006	0.31	0.10	0.14
Z018-Z004	Z018	Z004	8	333.81	0.0020	0.143	1.46	0.30	0.45
Z019-Z018	Z019	Z018	8	355.97	0.0023	0.090	1.36	0.22	0.33
Z020-Z019	Z020	Z019	8	289.86	0.0020	0.084	1.27	0.22	0.33
Z021-Z022	Z021	Z022	8	221.72	0.0020	0.178	1.55	0.34	0.51
Z022-Z023	Z022	Z023	8	217.99	0.0015	0.183	1.41	0.37	0.56
Z023-Z024	Z023	Z024	12	22.53	0.0044	0.183	2.04	0.23	0.23
Z024-Z015	Z024	Z015	12	145.53	0.0027	0.199	1.74	0.28	0.28
Z025-Z015	Z025	Z015	6	69.07	0.0012		0.55	0.09	0.17
Z026-Z025	Z026	Z025	6	361.94	0.0012		0.56	0.09	0.17
Z029-Z021	Z029	Z021	8	230.68	0.0020		1.53	0.33	0.49
Z029-Z030	Z028	Z030	12	129.23	0.0027	0.207	1.78	0.28	0.43
Z030-Z031	Z030	Z031	12	165.25	0.0209		3.65	0.17	0.23
Z030-Z031 Z031-Y811	Z030			241.87	0.0203		2.52	0.17	0.17
TO21-1QTT	ZU31	Y811	12	241.8/	0.0073	0.207	2.52	0.22	0.22



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B001-C001	02/14/24	DS	Cerritos Ave	VCP	10	277.14	Cracks	D	Rehabilitate (Lining)		CIP-006
B002-B001	02/14/24	DS	Cerritos Ave	VCP	10	132.46	N/A	А	No Action		
B003-B002	02/14/24	DS	Cerritos Ave	VCP	10	120.34	Broken pipe	С	Point repair		
B004-B003	02/14/24	DS	Cerritos Ave	VCP	10	135.07	Cracks	С	Point repair		
B005-B004	02/14/24	DS	1306 Cerritos Ave	VCP	10	133.66	Sag	В	No Action		
B006-B005	02/14/24	DS	1300 Cerritos Ave	VCP	10	121.44	Sag	С	No Action		
B007-B006	02/14/24	DS	7200 Cerritos Ave	VCP	10	255.80	Sag	В	No Action		
B008-B007	09/09/22	DS	Oakhaven Dr	VCP	8	267.50	Cracks, Broken Pipe	D	Rehabilitate (Lining)		CIP-006
B009-B008	09/09/22	DS	Oakhaven Dr	VCP-lined	8	258.40	N/A	А	No Action		
B010-B009	09/09/22	US	7251 Oakhaven Dr	VCP	8	87.10	Cracks	В	No Action		
B011-B006	09/09/22	DS	Westchester Ave	VCP	8	268.00	Broken pipe	D	Rehabilitate (Lining)		CIP-006
B012-B011	09/09/22	DS	Westchester Ave	VCP	8	257.90	Cracks	D	Rehabilitate (Lining)		CIP-006
B013-B012	09/09/22	US	Westchester Ave	VCP	8	198.30	Cracks	В	No Action		
B014-B004	09/27/22	DS	Courson Dr	VCP-lined	8	270.90	N/A	А	No Action		
B015-B014	09/27/22	US	Grandoaks Dr	VCP-lined	8	260.40	N/A	А	No Action		
B016-B015	09/27/22	DS	Grandoaks Dr	VCP	8	212.00	Cracks	С	Rehabilitate (Lining)		
B017-B016	09/27/22	US	Grandoaks Dr	VCP	8	198.00	Joint Offset	С	Point repair		
B018-B015	09/27/22	US	Grandoaks Dr	VCP	8	186.10	Joint Offset	В	No Action		
B019-H022	02/27/24	DS	Knott Ave	VCP	10	177.05	Sag	D	Replace		CIP-006
B020-B045	02/23/24	DS	Cerritos Ave	VCP	8	268.53	Broken pipe	D	Point repair		CIP-005
B021-B020	02/23/24	DS	Cerritos Ave	VCP-lined	8	326.34	Flow Capacity	D	Clean and CCTV		
B022-B021	02/23/24	DS	Cerritos Ave	VCP	8	115.83	Flow Capacity	E	Clean and CCTV		
B023-B022	02/23/24	DS	Cerritos Ave	VCP-lined	8	195.08	N/A	А	No Action		
B024-B023	02/22/24	DS	7191 Cerritos Ave	VCP	8	56.11	Cracks	D	Rehabilitate (Lining)		CIP-006
B025-B024	02/22/24	DS	Cerritos Ave	VCP	8	239.17	Cracks	D	Rehabilitate (Lining)		CIP-006
B026A-B026	02/22/24	US	Cerritos Ave	VCP	8	15.30	N/A	А	No Action		
B026-B025	02/22/24	DS	Cerritos Ave	VCP	8	15.73	N/A	А	No Action		
B028-B022	08/25/22	DS	10431 Lexington St	VCP	8	257.90	Cracks	С	Rehabilitate (Lining)		
B029-B028	09/09/22	DS	Lullaby Ln	VCP	8	202.20	Cracks	В	No Action		
B030-B029	09/09/22	DS	Lullaby Ln	VCP	8	213.60	Cracks	С	Rehabilitate (Lining)		
B031-B028	08/25/22	DS	Lexington St	VCP	8	257.40	Cracks	В	No Action		
B032-B031	09/09/22	DS	Grandoaks Dr	VCP	8	252.30	Cracks	D	Rehabilitate (Lining)		CIP-006
B033-B032	09/09/22	DS	Grandoaks Dr	VCP	8	248.50	Broken pipe	D	Point repair		CIP-005
B034-C017	08/22/22	DS	7431 Palais Rd	VCP	8	290.30	Cracks	В	No Action		
B035-B034	08/22/22	DS	7361 Polais Rd	VCP	8	253.40	Cracks	В	No Action		
B036-B035	08/22/22	DS	7301 Papais Rd	VCP	8	350.30	Broken pipe	С	Point repair		

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B037-B034	08/23/22	DS	Ramblewood Dr	VCP	8	354.70	Broken pipe	С	Point repair		
B038-B035	08/23/22	DS	10286 Courson Dr	VCP	8	162.90	Roots	В	Root Treatment		
B039-B002	09/27/22	DS	Ramblewood Dr	VCP	8	240.80	Cracks, Joint Offset	E	Replace		CIP-004
B040-B039	09/27/22	US	Ramblewood Dr	VCP	8	98.40	N/A	А	No Action		
B041-B019	02/27/24	DS	Knott Ave	VCP	10	256.20	Joint Offset	D	Replace		CIP-006
B045-B019	02/23/24	DS	Cerritos Ave	VCP	8	1.10	N/A	А	No Action		
C001-I017A	02/15/24	DS	Western Ave Revideo	VCP	15	290.37	Infiltration, Sag	D	Replace		CIP-006
C002-C003	03/19/24	DS	Cerritos Ave	VCP	8	247.69	Sag	С	Rehabilitate (Lining)		
C003-C005	03/19/24	DS	7791 Cerritos Ave	VCP	8	348.49	Cracks	С	Point repair		
C005-C004	03/19/24	DS	Cerritos Ave	VCP	8	346.58	Deposits	С	Replace		
C006-C004	03/20/24	DS	Cerritos Ave	VCP	12	336.66	Cracks	D	Rehabilitate (Lining)		CIP-006
C007-I102	03/20/24	DS	Rose Ave	VCP	18	310.01	Deposits	С	Rehabilitate (Lining)		
C008-C007	03/20/24	DS	Cerritos Ave	VCP	15	611.00	Infiltration	С	Rehabilitate (Lining)		
C009-C008	03/19/24	DS	Cerritos Ave	VCP	15	11.12	Flow Capacity	С	No Action		
C010-D012	08/24/22	DS	1st St	VCP	8	297.70	N/A	А	No Action		
C011-C010	08/24/22	DS	1st St	VCP	8	296.50	Roots	В	Root Treatment		
C012A-C001	02/15/24	DS	Western Ave Revideo	VCP	12	257.21	Flow Capacity	D	Clean and CCTV		
C012-C001	02/15/24	DS	7525 Western Ave	VCP	12	297.48	Deposits	С	Rehabilitate (Lining)		
C013A-C012A	02/13/24	DS	Western Ave	VCP	12	235.96	Sag, Flow Capacity	D	Replace		CIP-006
C013-C012	02/13/24	DS	Western Ave	VCP	12	197.09	Sag	D	Replace		CIP-006
C014-C013	02/13/24	DS	Western Ave	VCP	12	131.56	Cracks	С	Point repair		
C015-C014	02/13/24	DS	Western Ave	VCP	12	149.09	Broken pipe	D	Point repair		CIP-005
C016-C015	08/23/22	DS	Western Ave	VCP	12	181.70	Cracks	В	No Action		
C017-C016	08/23/22	DS	Western Ave	VCP	12	219.50	Cracks	В	No Action		
C019-C013A	08/24/22	DS	College Dr	VCP	8	338.60	Grease	В	Clean		
C020-C019	08/25/22	DS	10440 Vassar Wy	VCP	8	252.70	Roots	В	Root Treatment		
C021-C019	08/24/22	DS	College Dr	VCP	8	239.00	Roots	В	Root Treatment		
C022-C021	08/25/22	DS	College Dr	VCP	8	149.00	Grease	С	Clean		
C023-C022	08/25/22	DS	Scripps Wy	VCP	8	162.20	Grease	С	Clean		
C024-C022	08/25/22	DS	College Dr	VCP	8	224.40	Grease	В	Clean		
C026-C013A	02/13/24	DS	Western Ave	VCP	12	282.15	Sag	D	Replace		CIP-006
C027-C026	08/24/22	DS	7542 Cody Dr	VCP	8	238.80	Joint Offset	D	Point repair		CIP-005
C028-C027	08/24/22	DS	Cody Dr	VCP	8	256.80	Cracks	С	Rehabilitate (Lining)		
C029-C028	08/24/22	DS	10321 Cody Dr	VCP	8	260.30	Cracks	В	No Action		
C030-C029	08/23/22	DS	Cody Dr	VCP	8	249.30	Broken pipe	D	Point repair		CIP-005
C031-C030	08/23/22	DS	7700 Cody Dr	VCP	8	41.80	Grease	В	Clean		

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C032-C031	08/23/22	DS	Cody Dr	VCP	8	143.40	Grease	С	Clean		
C033-C032	08/23/22	DS	Cody Dr	VCP	8	108.00	Grease	С	Clean		
C034-C033	08/23/22	DS	Cody Dr	VCP	8	169.00	Grease	С	Clean		
C035-C034	08/23/22	DS	Sentry Dr	VCP	8	161.10	Grease	С	Clean		
C036-C035	08/23/22	DS	Sentry Dr	VCP-lined	8	234.50	Grease	С	Clean		
C037-C026	08/23/22	DS	Western St	VCP	10	201.80	Grease	В	Clean		
C038-C027	08/22/22	DS	Garrett St	VCP-lined	8	263.30	N/A	А	No Action		
C039-C028	08/22/22	DS	Masterson Dr	VCP-lined	8	262.90	N/A	А	No Action		
C040-C029	08/19/22	DS	Courtright St	VCP	8	262.00	Cracks	D	Rehabilitate (Lining)		CIP-006
C041-C031	08/24/22	DS	10261 Wyatt Rd	VCP	8	327.40	Cracks	В	No Action		
C042-C041	08/24/22	DS	10260 Wyatt Rd	VCP	8	148.80	Cracks	В	No Action		
C043-C029	08/19/22	DS	Courtright St	VCP	8	248.10	Roots	В	Root Treatment		
C044-C030	08/23/22	DS	Hickok Rd	VCP	8	207.30	Grease	В	Clean		
C045-C035	08/22/22	DS	2nd St	VCP	8	199.10	Roots	В	Root Treatment		
C046-C047	08/25/22	DS	2nd St	VCP	8	307.60	Roots	В	Root Treatment		
C047-C048	08/25/22	DS	2nd St	VCP	8	36.20	Grease	В	Clean		
C048-D014	08/25/22	DS	2nd St	VCP	8	348.40	Joint Offset	С	Point repair		
C049-C045	08/25/22	US	1795 2nd St	VCP	8	30.20	N/A	А	No Action		
C049-C045	08/24/22	US	2nd St	VCP	8	189.00	Roots	В	Root Treatment		
C051-C011	08/24/22	US	1st St	VCP	8	139.10	Roots	D	Rehabilitate (Lining)		CIP-006
C052-C024	08/25/22	DS	College Dr	VCP	8	236.50	Grease	В	Clean		
C053-C052	08/25/22	DS	Lenders Wy	VCP	8	298.60	Grease	В	Clean		
C054-C052	08/25/22	US	Lenders Wy	VCP	8	138.70	Grease	В	Clean		
C055-C024	08/25/22	US	Rutgers Wy	VCP	8	138.60	Roots	D	Rehabilitate (Lining)		CIP-006
C056-C046	08/25/22	US	7842 2nd St	VCP	8	188.90	Roots	С	Rehabilitate (Lining)		
C057-I051	10/05/22	US	10502 Rose St	VCP	12	314.00	N/A	А	No Action		
C058-C057	10/05/22	US	10502 Rose St	VCP	12	9.00	N/A	А	No Action		
C800-C017	08/23/22	DS	Western St	VCP	12	111.90	N/A	А	No Action		
C806-C037	08/23/22	DS	10250 Western St	VCP	8	324.00	Cracks	В	No Action		
C809-C038	08/22/22	DS	Garrett St	VCP-lined	8	265.80	N/A	А	No Action		
C812-C039	08/22/22	DS	Masterson Dr	VCP-lined	8	265.50	N/A	А	No Action		
C813-C040	08/19/22	DS	Courtright St	VCP	8	264.70	Cracks	С	Rehabilitate (Lining)		
D001-C006	03/19/24	DS	7922 Cerritos Ave	VCP	12	304.80	Broken pipe	D	Point repair	2 point repairs	CIP-005
D002-D090	03/19/24	DS	Cerritos Ave	VCP-lined	10	80.06	Lining Defect	С	Point repair		
D003-D002	03/19/24	DS	Cerritos Ave	VCP	10	250.29	N/A	А	No Action		
D004-D091	08/19/22	DS	Cerritos St	VCP	10	259.70	Grease	В	Clean		

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D005-D004	08/19/22	DS	Cerritos St	VCP	10	327.80	Grease	С	Clean		
D006-D005	08/19/22	DS	Cerritos St	VCP	10	336.30	Grease, Flow Capacity	С	Clean		
D007-D006	08/19/22	DS	Cerritos St	VCP	10	336.40	Grease, Flow Capacity	С	Clean		
D008-D007	08/19/22	DS	Cerritos St	VCP	10	136.50	Grease	С	Clean		
D009-D008	08/19/22	DS	Cerritos St	VCP	10	181.80	Grease	В	Clean		
D010-D009	08/19/22	DS	Cerritos St	VCP	10	330.20	Roots	В	Root Treatment		
D011-D001	01/10/24	DS	Beach Blvd	VCP	10	292.00	Sag, Broken Pipe	D	Replace		CIP-006
D012-D011	01/10/24	DS	Beach Blvd	VCP	10	287.00	Sag	В	No Action		
D012-D098	01/10/24	DS	Beach Blvd	VCP	10	309.00	Sag	С	Replace		
D013-D012	01/10/24	DS	Beach Blvd	VCP	10	252.00	Sag, Joint Offset	С	Point repair		
D014-D013	01/09/24	DS	Beach Blvd	VCP	10	245.00	Cracks	С	Point repair		
D015-D014	01/09/24	DS	Beach Blvd	VCP	10	286.00	Sag	В	No Action		
D016-D015	01/09/24	DS	Beach Blvd	VCP	10	291.00	Sag	С	Point repair		
D018-D031	01/09/24	DS	Beach Blvd	VCP	15	402.00	Flow Capacity	С	No Action		
D020-D018	01/09/24	DS	Beach Blvd	VCP	15	402.00	Flow Capacity	В	No Action		
D021-D020	01/09/24	DS	Beach Blvd	VCP	15	437.00	Flow Capacity	С	Clean		
D022-D021	01/08/24	US	Beach Blvd	VCP	15	385.00	Flow Capacity	С	Clean		
D023-D016	01/09/24	US	10200 Beach Blvd	VCP	8	102.00	Cracks	С	Point repair	2 point repairs	
D024-D023	01/08/24	DS	1240 Beach Blvd	VCP	8	331.00	N/A	Α	No Action		
D025-D022	01/08/24	DS	Beach Blvd	VCP	8	27.00	N/A	Α	No Action		
D025-D023	01/09/24	DS	Beach Blvd	VCP	8		N/A	А	No Action		
D026-D025	08/09/22	DS	Starr St	VCP	8	250.40	Roots	С	Rehabilitate (Lining)		
D027A-D026	08/09/22	DS	Starr St	VCP	8	82.10	Grease	В	Clean		
D027B-D027	08/09/22	DS	Starr St	VCP	8	130.00	Grease	В	Clean		
D027-D027A	08/09/22	DS	Starr St	VCP	8	157.70	Grease	В	Clean		
D028-D027B	08/09/22	DS	Starr St	VCP	8	86.10	Grease	В	Clean		
D029A-D029	08/09/22	DS	Starr St	VCP	8	82.00	Grease	В	Clean		
D029-D028	08/09/22	DS	Starr St	VCP	8	146.20	Cracks	В	No Action		
D030-D029A	08/09/22	DS	Starr St	VCP	8	169.10	Cracks	В	No Action		
D031-C009	03/19/24	DS	Cerritos Ave	VCP	15	113.52	Flow Capacity	С	No Action		
D032-D031	03/19/24	DS	Cerritos Ave	VCP	15	324.44	Flow Capacity	С	No Action		
D033-D032	03/18/24	DS	8113 Cerritos Ave	VCP	12	247.39	Infiltration	D	Point repair	2 point repairs	CIP-005
D034-D033	03/18/24	DS	8100 Cerritos Ave	VCP	12	338.77	Cracks	С	Point repair		
D035-D034	03/15/24	DS	8250 Cerritos Ave	VCP	12	326.34	Grease	В	Clean		
D036-D035	03/15/24	DS	8350 Cerritos Ave	VCP	12	474.32	Joint Offset	С	Point repair		
D037-D036	03/14/24	DS	8400 Cerritos Ave	VCP	12	425.14	Cracks	В	No Action		

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D038-D032	08/11/22	DS	Easement	VCP	8	144.20	Cracks	В	No Action		
D039-D038	08/11/22	DS	Easement	VCP	8	222.10	Grease	В	Clean		
D040-D039	08/11/22	DS	Easement	VCP	8	216.40	Grease	В	Clean		
D041-D040	08/11/22	DS	Easement	VCP	8	217.50	Grease	В	Clean		
D042-D041	08/11/22	DS	Easement	VCP	8	136.30	Grease	В	Clean		
D043-D042	08/11/22	US	Easement	VCP	8	204.20	Debris	В	Clean		
D044-D043	08/03/22	US	Continental Garden Apts	VCP	8	24.00	Debris	В	Clean		
D045-D038	08/11/22	US	Easement	VCP	6	334.10	Grease	В	Clean		
D046-D006	08/10/22	DS	Fern St	VCP	8	95.00	Grease	В	Clean		
D047-D046	08/10/22	DS	Fern St	VCP	8	60.80	Roots	В	Root Treatment		
D048-D047	08/10/22	DS	Fern St	VCP	8	267.60	Roots	С	Rehabilitate (Lining)		
D049-D048	08/10/22	DS	Fern St	VCP	8	54.30	Grease, Flow Capacity	В	Clean		
D050-D049	08/10/22	DS	Fern St	VCP	8	287.00	Grease, Flow Capacity	E	Clean and CCTV		
D051-D050	08/09/22	DS	Fern St	VCP	8	34.80	Grease	D	Clean and CCTV		
D052-D051	08/09/22	DS	Fern St	VCP	8	157.40	Grease	D	Clean and CCTV		
D053-D052	08/09/22	DS	Fern St	VCP	8	197.00	Grease	С	Clean		
D054-D053	08/09/22	DS	Palais Rd	VCP	8	339.50	Grease	В	Clean		
D055-D054	08/09/22	DS	Palais Rd	VCP	8	344.40	Cracks	В	No Action		
D056-D055	08/09/22	DS	Palais Rd	VCP	8	347.80	Roots	С	Rehabilitate (Lining)		
D057-D050	08/10/22	DS	Chanticleer Rd	VCP	8	247.00	Grease	В	Clean		
D058-D057	08/10/22	DS	Chanticleer Rd	VCP	8	258.80	Grease	С	Clean		
D059-D058	08/10/22	DS	Chanticleer Rd	VCP	8	258.30	Grease	В	Clean		
D060-D059	08/10/22	DS	Chanticleer Rd	VCP	8	256.80	Grease	В	Clean		
D061-D060	08/09/22	DS	Sonnet St	VCP	8	305.40	Grease	В	Clean		
D062-D047	08/10/22	DS	Easement	VCP	8	246.10	Grease	С	Clean		
D063-D062	08/10/22	DS	Easement	VCP	8	249.50	Grease	С	Clean		
D064-D049	08/11/22	US	Easement	VCP	8	172.20	Broken pipe	E	Point repair		CIP-001
D065-D064	08/11/22	US	Easement	VCP	8	198.00	Grease	В	Clean		
D067-D051	08/10/22	DS	Easement	VCP	8	246.10	Broken pipe	E	Point repair		CIP-001
D068-D067	08/10/22	DS	Easement	VCP	8	248.80	Grease	В	Clean		
D069-D070	08/08/22	DS	WINSTON RD	VCP	8	266.90	Cracks	В	No Action		
D070-D071	08/08/22	DS	WINSTON RD	VCP	8	251.20	Grease	В	Clean		
D071-D072	08/08/22	DS	WINSTON RD	VCP	8	253.70	N/A	А	No Action		
D072-D073	08/08/22	DS	Vantage St	VCP	8	207.20	Cracks	В	No Action		
D073-D074	08/08/22	DS	Starr St	VCP	8	256.90	Roots	В	Root Treatment		
D074-D030	08/09/22	DS	Starr St	VCP	8	97.00	Grease	В	Clean		

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D075-D074	08/09/22	DS	Fern Ave	VCP	8	224.40	Grease	В	Clean		
D081-D073	08/08/22	DS	Vantage St	VCP	8	181.40	Grease	С	Clean		
D082-D081	08/08/22	DS	LOLA AVE	VCP	8	252.40	Grease	В	Clean		
D083-D082	08/08/22	DS	LOLA AVE	VCP	8	252.10	Grease	В	Clean		
D084-D083	08/08/22	DS	LOLA AVE	VCP	8	254.00	Grease	В	Clean		
D085-D084	08/08/22	DS	Sonnet St	VCP	8	244.80	Grease	В	Clean		
D086-D008	08/11/22	DS	Ashdale St	VCP	8	233.40	Joint Offset	E	Point repair	2 point repairs	CIP-001
D086-D008	08/19/22	US	Ashdale St	VCP	8	3.50	Joint Offset	E	Point repair	2 point repairs	CIP-001
D087-D086	08/11/22	DS	Ashdale St	VCP	8	302.40	Grease	В	Clean		
D090-D001	03/19/24	DS	Beach Blvd	VCP	8	15.63	Cracks	D	Rehabilitate (Lining)		CIP-006
D091-D003	03/19/24	US	Cerritos Ave	VCP	10	67.73	N/A	А	No Action		
D091-D032	03/19/24	DS	Cerritos Ave	VCP	10	9.42	Cracks	В	No Action		
D092-D074	08/08/22	DS	Fern Ave	VCP	8	331.70	Grease	В	Clean		
D093-D059	11/04/22	DS	Banff St	VCP	8	160.00	N/A	А	No Action		
D094-D058	08/10/22	DS	Ashdale St	VCP	8	154.70	Grease	В	Clean		
D095-D057	08/10/22	DS	Vantage St	VCP	8	158.50	Grease	В	Clean		
D096-D071	08/08/22	DS	Ashdale St	VCP	8	150.30	N/A	А	No Action		
D097-D070	08/08/22	DS	Banff St	VCP	8	150.70	N/A	А	No Action		
D098-D090	01/10/24	DS	Beach Blvd	VCP	10	275.00	Sag	D	Replace		CIP-006
E001-D010	08/19/22	DS	Cerritos Ave	VCP	10	328.00	Grease	С	Clean		
E001-E003	08/19/22	DS	Cerritos Ave	VCP	10	11.00	N/A	А	No Action		
E002-E001	08/19/22	US	Cerritos Ave	VCP	8	24.00	N/A	А	No Action		
E003-D037	08/24/22	DS	Cerritos Ave	VCP	12	426.00	Grease	В	Clean		
E005A-E003	08/23/22	DS	Cerritos Ave	VCP	12	496.00	Grease	В	Clean		
E005-E005A	08/19/22	DS	Cerritos Ave	VCP	8	11.00	Grease	С	Clean		
E006-E005	08/18/22	DS	Cerritos Ave	VCP	8	284.00	Grease, Flow Capacity	В	Clean		
E007-E006	08/18/22	DS	Cerritos Ave	VCP	8	285.00	Grease, Flow Capacity	С	Clean		
E008-E007	08/18/22	DS	Cerritos Ave	VCP	8	280.00	Cracks	В	No Action		
E009-E008	08/18/22	DS	Cerritos Ave	VCP	8	20.00	Grease	С	Clean		
E010-E009	08/18/22	DS	Cerritos Ave	VCP-lined	8	169.00	N/A	А	No Action		
E011-E010	08/18/22	US	Cerritos Ave	VCP	8	19.00	Broken pipe	D	Point repair		CIP-005
E012-E011	08/18/22	DS	Cerritos Ave	VCP	8	314.00	N/A	А	No Action		
E013-E012	08/18/22	DS	Cerritos Ave	VCP	8	308.00	N/A	А	No Action		
E014-E013	08/18/22	DS	Cerritos Ave	VCP/PVC	8	200.00	N/A	А	No Action		
E015-E005A	08/02/22	DS	YANA DR	VCP	8	313.00	Grease	В	Clean		
E016-E015	08/02/22	DS	YANA DR	VCP	8	294.00	Cracks	С	Rehabilitate (Lining)		

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E017-E016	08/02/22	DS	YANA DR	VCP	8	242.00	Cracks	С	Rehabilitate (Lining)		
E018-E017	08/02/22	DS	YANA DR	VCP	8	189.00	Cracks	В	No Action		
E019-E018	08/02/22	DS	YANA DR	VCP	8	269.00	Cracks	С	Rehabilitate (Lining)		
E020-E019	08/02/22	DS	YANA DR	VCP	8	267.00	Cracks	С	Rehabilitate (Lining)		
E021-E020	08/02/22	DS	YANA DR	VCP	8	257.00	Cracks	В	No Action		
E022-E021	08/15/22	DS	LOLA AVE	VCP-lined	8	309.00	N/A	А	No Action		
E023-E021	08/02/22	DS	LOLA AVE	VCP	8	299.00	N/A	А	No Action		
E024-E023	08/02/22	US	LOLA AVE	VCP	8	175.00	Grease	В	Clean		
E026-D060	08/15/22	DS	CHANTICLEER RD	VCP	8	266.00	Grease	В	Clean		
E027-E026	08/15/22	DS	10295 Dale St	VCP	8	252.00	Grease	В	Clean		
E028-E027	08/15/22	DS	Dale St	VCP	8	246.00	Grease	В	Clean		
E029-D069	08/15/22	DS	WINSTON RD	VCP	8	270.00	Grease	В	Clean		
E030-E029	08/15/22	DS	10222 Dale St	VCP	8	262.00	Grease	В	Clean		
E031-E017	08/01/22	DS	CHANTICLEER RD	VCP	8	180.00	Cracks	В	No Action		
E032-E031	08/01/22	DS	CHANTICLEER RD	VCP	8	70.00	Cracks	С	Rehabilitate (Lining)		
E033-E032	08/01/22	US	CHANTICLEER RD	VCP	8	94.00	Grease	В	Clean		
E034-E032	08/02/22	DS	Alley	VCP-lined	8	347.00	Grease	В	Clean		
E035-E034	08/02/22	DS	Alley	VCP-lined	8	349.00	N/A	А	No Action		
E036-E035	08/01/22	US	Alley off Iola Ave	VCP	8	200.00	Cracks	С	Rehabilitate (Lining)		
E037-E017	08/01/22	DS	CHANTICLEER RD	VCP	8	223.00	Roots	С	Rehabilitate (Lining)		
E038-E037	08/01/22	US	CHANTICLEER RD	VCP	8	298.00	Cracks	С	Rehabilitate (Lining)		
E039-E038	08/01/22	DS	MAC Duff St	VCP	8	299.00	Cracks	С	Rehabilitate (Lining)		
E040-E039	08/01/22	DS	MAC Duff St	VCP	8	154.50	Cracks	С	Rehabilitate (Lining)		
E040-E039	08/01/22	US	MAC Duff St	VCP	8	144.60	Cracks	С	Rehabilitate (Lining)		
E041-E040	08/01/22	DS	MAC Duff St	VCP	8	299.00	N/A	А	No Action		
E042-E041	08/01/22	US	MAC Duff St	VCP	8	144.00	N/A	Α	No Action		
E043-E037	08/01/22	DS	WASCO RD	VCP-lined	8	227.00	N/A	А	No Action		
E044-E043	08/01/22	DS	WASCO RD	VCP-lined	8	349.00	N/A	А	No Action		
E045-E044	08/01/22	US	WASCO RD	VCP	8	201.00	N/A	А	No Action		
E046-E016	08/05/22	DS	HARRIET LN	VCP	8	349.00	N/A	А	No Action		
E047-E046	08/05/22	US	HARRIET LN	VCP	8	107.00	Cracks	В	No Action		
E048-E015	08/05/22	DS	LULLABY LN	VCP	8	349.00	Cracks	С	Rehabilitate (Lining)		
E049-E048	08/05/22	US	LULLABY LN	VCP	8	107.00	Grease	В	Clean		
E050-E002	08/15/22	DS	Dale St	VCP	8	346.00	Roots	В	Root Treatment		
E051-E050	08/15/22	DS	Dale St	VCP	8	149.00	Roots	В	Root Treatment		
E052-E008	08/03/22	DS	Alley	VCP	8	160.00	Broken pipe	D	Point repair		CIP-005

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E054-E810	08/03/22	DS	SHERRILL ST	VCP-lined	8	266.00	Grease	С	Clean		
E055-E054	08/03/22	DS	KENNELLY LN	VCP	8	358.00	Grease	В	Clean		
E056-E055	08/03/22	DS	KENNELLY LN	VCP	8	358.00	Cracks	С	Point repair		
E057-E056	08/03/22	US	KENNELLY LN	VCP	8	271.00	Roots	D	Rehabilitate (Lining)		CIP-006
E057-E056	08/03/22	DS	KENNELLY LN	VCP	8	53.00	Deposits, Lateral Intrusion	D	Rehabilitate (Lining)		CIP-006
E058-E054	08/03/22	DS	SHERRILL ST	VCP	8	261.00	Cracks	С	Rehabilitate (Lining)		
E059-E058	08/03/22	DS	LOLA AVE	VCP	8	356.00	Cracks	В	No Action		
E060-E059	08/03/22	DS	LOLA AVE	VCP	8	356.00	Cracks	В	No Action		
E061-E060	08/03/22	DS	LOLA AVE	VCP	8	360.00	Cracks	С	Rehabilitate (Lining)		
E801-E030	08/15/22	DS	Dale St	VCP	8	265.00	N/A	А	No Action		
E811-E810	08/04/22	DS	WINSTON RD	VCP	8	347.00	Grease	В	Clean		
E812-E811	08/04/22	DS	WINSTON RD	VCP	8	252.00	Cracks	С	Rehabilitate (Lining)		
E833-E058	08/03/22	US	SHERRILL ST	VCP	8	122.00	Cracks	С	Rehabilitate (Lining)		
F003-F002	08/22/22	DS	Cerritos Ave	VCP	15	349.20	Cracks	В	No Action		
F004-F003	08/22/22	DS	Cerritos Ave	VCP	15	349.10	Grease	В	Clean		
F005-F004	08/22/22	DS	Cerritos Ave	VCP	15	352.30	Grease	В	Clean		
F006A-F800	08/04/22	DS	Alley	VCP	8	365.00	Cracks	С	Rehabilitate (Lining)		
F006-F006A	08/04/22	DS	Alley	VCP	8	46.00	Grease	В	Clean		
F007-F006	08/04/22	DS	OLIVEWOOD APTS	VCP	8	85.00	Roots	С	Rehabilitate (Lining)		
F008-F007	08/04/22	DS	OLIVEWOOD APTS	VCP	8	333.00	Roots	В	Root Treatment		
F009-F008	08/04/22	DS	OLIVEWOOD APTS	VCP	8	331.00	Roots	В	Root Treatment		
G001-G001A	11/04/22	DS	Easement	VCP	8	6.10	Deposits	D	Clean and CCTV		
G002-G001	11/04/22	DS	Via Jacara	VCP	8	133.90	Deposits	D	Clean and CCTV		
G002-G001	11/04/22	US	Via Jacara	VCP	8	7.00	Deposits	D	Clean and CCTV		
G003-G002	11/04/22	DS	Via Jacara	VCP	8	163.00	Deposits	D	Clean and CCTV		
G004-G003	11/04/22	DS	Via Irana	VCP	8	281.00	Deposits	D	Clean and CCTV		
G005-G004	11/04/22	DS	Via Irana	Concrete	8	298.00	Erosion	D	Replace		CIP-006
G006-G005	11/04/22	DS	Via Irana	Concrete	8	169.00	Erosion	D	Replace		CIP-006
G007-G012	11/03/22	US	Via Irana	Concrete	8	132.00	Erosion	D	Replace		CIP-002
G008-G001	11/03/22	DS	Via Jacara	VCP	8	103.00	Grease	В	Clean		
G009-G008	11/03/22	US	Via Kannela	VCP	8	75.50	Deposits	С	Point repair	2 point repairs	
G009-G008	11/03/22	DS	Via Kannela	VCP	8	248.90	Deposits	С	Point repair		
G010-G009	11/03/22	DS	6880 Via Kannela	Concrete	8	85.10	Erosion	E	Replace		CIP-002
G010-G009	11/03/22	US	6880 Via Kannela	Concrete	8	96.90	Erosion	E	Replace		CIP-002
G011-G010	11/03/22	DS	6840 Via Kannela	Concrete	8	70.80	Erosion	E	Replace		CIP-002
G011-G010	11/03/22	US	6840 Via Kannela	Concrete	8	25.00	Erosion	E	Replace		CIP-002

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G012-G011	11/03/22	DS	Via Irana	Concrete	8	21.40	Erosion	E	Replace		CIP-002
G012-G011	11/03/22	US	Via Irana	Concrete	8	14.40	Erosion	E	Replace		CIP-002
G013-G012	11/03/22	DS	Via Irana	Concrete	8	59.60	Erosion	E	Replace		CIP-002
G013-G012	11/03/22	US	Via Irana	Concrete	8	32.60	Erosion	E	Replace		CIP-002
G014-G013	11/03/22	DS	6720 Via Kannela	Concrete	8	326.00	Erosion	D	Replace		CIP-002
G015-G009	04/12/24	DS	Via Jardin	VCP	8	193.18	Deposits	С	Clean		
G016-G008	11/03/22	US	Via Jacara	VCP	8	31.10	Debris	D	Clean and CCTV		
G801-G014	11/03/22	DS	6700 Via Kannela	Concrete	8	125.80	Erosion	D	Replace		CIP-002
H010-H002	02/29/24	DS	Katella Ave	VCP	12	22.34	Deposits	В	No Action		
H011-H010	02/29/24	DS	Knott Ave	VCP	10	276.54	Sag	С	Replace		
H013-H011	02/28/24	DS	Knott Ave	VCP	10	267.13	Sag	D	Replace		CIP-006
H015-H013	02/28/24	DS	Knott Ave	VCP	10	343.07	Deposits	D	Replace		CIP-006
H016-H015	02/28/24	DS	Knott Ave	VCP	10	188.97	Deposits	E	Point Repair, Replace	"E" Pt Repair, "D" Replace	CIP-001 / CIP-006
H016-H015	02/28/24	US	Knott Ave	VCP	10	107.21	Deposits	E	Point Repair, Replace	"E" Pt Repair, "D" Replace	CIP-001 / CIP-007
H017-H016	02/28/24	DS	Knott Ave	VCP	10	185.00	Deposits, Sag	D	Replace		CIP-006
H018-H017	02/28/24	DS	Knott Ave	VCP	10	160.01	Deposits	D	Replace		CIP-006
H019A-H018	02/28/24	DS	Knott Ave	VCP	10	104.91	Deposits	С	Rehabilitate (Lining)		
H019-H019A	02/28/24	DS	Knott Ave	VCP	10	239.07	Deposits	С	Rehabilitate (Lining)		
H020-H019	02/28/24	DS	Knott Ave	VCP	10	345.38	Deposits	С	Rehabilitate (Lining)		
H021-H020	02/28/24	DS	10542 Knott Ave	VCP	10	74.25	Deposits	С	Rehabilitate (Lining)		
H022-H021	02/28/24	DS	Knott Ave	VCP	10	1.40	N/A	А	No Action		
H023-H010	02/29/24	DS	Katella Ave	VCP	8	64.13	Deposits	В	No Action		
H024-H023	02/29/24	DS	Katella Ave	VCP	8	555.59	Cracks	С	Point repair	2 point repairs	
H024-H025	02/29/24	DS	Katella Ave	VCP	10	242.78	Sag	В	No Action		
H025-H026	02/29/24	DS	Katella Ave	VCP	10	255.90	Sag	С	Replace		
H026-H027	02/29/24	DS	Katella Ave	VCP	10	275.94	Joint Offset	С	Replace		
H027-H028	03/01/24	DS	Katella Ave	VCP	10	110.12	Sag	В	No Action		
H028-H029	03/01/24	DS	Katella Ave	VCP	10	253.70	Sag	С	No Action		
H029-H030	03/01/24	DS	Katella Ave	VCP	10	365.52	Sag	D	Replace		CIP-006
H030-H031	03/01/24	DS	Katella Ave	VCP	10	367.62	Flow Capacity	E	Clean and CCTV		
H031-I012	04/04/24	DS	Katella Ave	VCP	12	210.71	Deposits	С	Point repair	2 point repairs	
H037-H105	10/14/22	DS	Easement	VCP	10	140.00	Grease	В	Clean		
H038-H037	10/18/22	DS	7061 Syracuse Ave	VCP	8	250.00	Grease	В	Clean		
H039-H038	10/18/22	DS	Syracuse Ave	VCP	8	223.00	Grease	В	Clean		
H040-H037	10/14/22	DS	Syracuse Ave	VCP	10	181.00	Grease	В	Clean		
H041-H040	10/14/22	DS	7180 Syracuse Ave	VCP	10	183.00	Grease	В	Clean		

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H042-H041	10/14/22	DS	Syracuse Ave	VCP	10	209.00	Grease	В	Clean		
H043-H042	10/14/22	DS	Syracuse Ave	VCP	10	352.00	Grease	С	Clean		
H044-H043	10/18/22	DS	Syracuse Ave	VCP	8	265.00	Grease	С	Clean		
H045-H044	10/18/22	DS	Syracuse Ave	VCP	8	105.00	Grease	С	Clean		
H046-H045	10/18/22	DS	Syracuse Ave	VCP	8	188.00	Grease	С	Clean		
H047-H046	10/18/22	DS	Syracuse Ave	VCP	8	260.00	Joint Offset	В	No Action		
H048-H047	10/17/22	DS	Syracuse Ave	VCP	8	256.00	N/A	А	No Action		
H049-H048	10/17/22	DS	Syracuse Ave	VCP	8	78.00	Roots	В	Root Treatment		
H050-H043	10/14/22	DS	Lowden St	VCP	10	371.00	Grease	В	Clean		
H051-H050	10/14/22	DS	Lowden St	VCP	10	176.00	Grease	С	Clean		
H052-H051	10/14/22	DS	7265 Bock Ave	VCP	8	5.90	Grease	С	Clean		
H052-H051	10/14/22	US	7265 Bock Ave	VCP	8	27.00	Grease	С	Clean		
H053-H052	10/14/22	DS	Bock Ave	VCP	8	372.00	N/A	А	No Action		
H054-H053	10/14/22	DS	Bock Ave	VCP	8	350.00	Grease	В	Clean		
H055-H054	10/14/22	DS	Bock Ave	VCP	8	361.00	Grease	В	Clean		
H056-H050	10/19/22	DS	Kermore Ln	VCP	8	120.00	N/A	А	No Action		
H057-H056	10/19/22	DS	Kermore Ln	VCP	8	114.00	Cracks	В	No Action		
H058-H057	10/19/22	DS	Keenan Pl	VCP	8	206.00	N/A	А	No Action		
H059-H058	10/19/22	US	Keenan Pl	VCP	8	154.00	Grease	С	Clean		
H060-H044	10/18/22	DS	Hamden Ave	VCP	8	300.00	N/A	А	No Action		
H061-H045	10/18/22	DS	Syracuse Ave	VCP	8	103.00	N/A	А	No Action		
H062-H046	10/18/22	US	10821 Asbury Ave	VCP	8	157.00	N/A	А	No Action		
H063-H047	10/18/22	US	Courson Dr	VCP	8	141.00	N/A	А	No Action		
H064-H048	10/17/22	DS	10825 Ramblewood Dr	VCP	8	140.00	N/A	А	No Action		
H065-H106	04/12/24	DS	Thunderbird Ln	VCP	10	186.87	Sag	E	Clean and CCTV		N/A
H066-H065	09/28/22	DS	Thunderbird Ln	VCP	8	248.80	Grease	В	Clean		
H067-H066	09/28/22	DS	Thunderbird Ln	VCP	8	347.70	Roots	С	Rehabilitate (Lining)		
H068A-H068	09/28/22	US	Thunderbird Ln	VCP	8	255.30	Roots	D	Clean and CCTV		
H068B-H068A	02/15/24	US	Western Ave	VCP	8	437.96	N/A	А	No Action		
H068-H067	09/28/22	DS	Thunderbird Ln	VCP	8	312.90	Roots	В	Root Treatment		
H069-H068	09/28/22	DS	Ramblewood Dr	VCP	8	390.80	Roots	В	Root Treatment		
Н070-Н065	09/28/22	US	Thunderbird Ln	VCP	8	71.10	Grease	С	Clean		
H071-H070	10/17/22	DS	Lowden St	VCP	8	245.00	Grease	В	Clean		
H072-H071	10/17/22	DS	Lowden St	VCP/PVC	8	334.00	Grease	В	Clean		
H073-H072	10/17/22	DS	7281 Middlesex Dr	VCP	8	272.00	Cracks	С	Rehabilitate (Lining)		
H074-H073	10/17/22	DS	Middlesex Dr	VCP	8	260.00	Grease	В	Clean		

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H075-H074	09/28/22	DS	Asbury Ave	VCP	8	176.50	Roots	В	Root Treatment		
H076-H075	09/28/22	DS	Lowell St	VCP	8	266.50	N/A	Α	No Action		
H077-H076	09/28/22	DS	Lowell St	VCP	8	140.00	N/A	А	No Action		
H078-H075	09/28/22	DS	Asbury Ave	VCP	8	279.50	Grease	В	Clean		
H079-H076	09/28/22	DS	Courson Dr	VCP	8	141.40	Debris	В	Clean		
H080-H071	10/17/22	DS	10625 Lowell	VCP	8	228.00	Cracks	С	Rehabilitate (Lining)		
H081-H080	10/17/22	DS	10655 Litchfield	VCP	8	264.00	Cracks	С	Rehabilitate (Lining)		
H082-H073	10/17/22	DS	Hamden Ave	VCP	8	334.00	Broken pipe	E	Point repair	2 point repairs	CIP-001
H083-B021	10/19/22	DS	10568 Bell St	VCP	8	7.00	Grease	С	Clean		
H084-H083	10/19/22	DS	Bell St	VCP	8	225.00	Grease	С	Clean		
H085-H084	10/19/22	DS	Bell St	VCP	8	198.00	Roots	В	Root Treatment		
H086-H085	10/19/22	US	10592 Bell St	VCP	8	22.00	N/A	А	No Action		
H087-H086	10/19/22	DS	Bell St	VCP	8	208.00	Joint Offset	С	Point repair		
H088-H087	10/19/22	DS	10615 Bell St	VCP	8	121.00	N/A	А	No Action		
H089A-H088	10/19/22	DS	Bell St	VCP	8	44.00	N/A	Α	No Action		
H089-H089A	10/19/22	DS	10661 Bell St	VCP	8	57.00	N/A	А	No Action		
H090-H089	10/19/22	DS	Bell St	VCP-lined	8	78.00	N/A	А	No Action		
H091-H090	10/19/22	DS	10652 Bell St	VCP-lined	8	24.00	N/A	А	No Action		
H092-H091	10/19/22	DS	Bell St	VCP	8	204.00	Joint Offset	С	Point repair		
H093-B023	10/19/22	DS	10571 Lexington St	VCP	8	363.00	Broken pipe	С	Point repair		
H094-H093	10/18/22	DS	10641 Lexington	VCP	8	404.00	Cracks	В	No Action		
H095-B026A	10/17/22	DS	Lowden St	VCP	8	232.00	N/A	А	No Action		
H096-H095	10/14/22	US	Lowden St	VCP	8	69.00	N/A	А	No Action		
H097-B003	09/27/22	DS	Courson Dr	VCP	8	272.20	Lateral Intrusion	D	Point repair		CIP-005
H098-H097	09/27/22	US	Courson Dr	VCP	8	164.30	Grease	В	Clean		
H099-H097	09/27/22	DS	ldylwild Dr	VCP	8	270.00	Cracks	С	Rehabilitate (Lining)		
H100-H099	09/27/22	US	ldylwild Dr	VCP	8	148.60	Cracks	В	No Action		
H101-H074	09/28/22	DS	Asbury Ave	VCP	8	222.40	N/A	А	No Action		
H102-B001	09/27/22	DS	Ramblewood Dr	VCP	8	5.80	N/A	С	Clean		
H103-H099	09/27/22	US	Ramblewood Dr	VCP	8	165.40	Roots	В	Root Treatment		
H105-H024	02/29/24	US	Katella Ave	VCP	10	303.80	Sag	С	No Action		
H106-H052	10/14/22	DS	7265 Bock Ave	VCP	10	130.00	Cracks	В	No Action		
H107-B005	02/14/24	DS	Cerritos Ave	VCP/Other	8	277.45	Grease, Defective Siphon	E	Replace		CIP-004
1001-1018	04/04/24	DS	Western Ave	VCP	21	8.62	Flow Capacity	E	Clean and CCTV		
1002-1001	04/04/24	DS	Katella Ave	VCP	12	341.77	Infiltration	D	Rehabilitate (Lining)		CIP-006
1003-1002	04/03/24	DS	Katella Ave	VCP	12	295.38	Infiltration	D	Rehabilitate (Lining)		CIP-006

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1004-1003	04/03/24	DS	Katella Ave	VCP	12	347.08	Infiltration	D	Rehabilitate (Lining)		CIP-006
1009-1008	04/02/24	US	Katella Ave	VCP	12	182.06	Cracks	D	Rehabilitate (Lining)		CIP-006
1009-1023	04/02/24	DS	Katella Ave	VCP	12	8.42	Cracks	С	Rehabilitate (Lining)		
1010-1023	04/02/24	DS	Katella Ave	VCP	21	11.02	Flow Capacity	В	No Action		
1011-1010	04/01/24	DS	Katella Ave	VCP	10	324.74	Deposits	С	Point repair	2 point repairs	
1012-1001	04/04/24	DS	Western Ave	VCP	21	7.82	Flow Capacity	E	Clean and CCTV		
I013A-I012	04/04/24	DS	Western Ave	VCP	15	228.55	Broken pipe	D	Point repair		CIP-005
I013-I013A	04/04/24	DS	Western Ave	VCP	15	111.02	Deposits	С	Point repair		
1014-1013	02/22/24	DS	Western Ave	VCP	15	347.08	Sag	D	Replace		CIP-006
1015-1014	02/21/24	DS	Western Ave	VCP	15	67.93	N/A	А	No Action		
I016A-I016	02/16/24	DS	Western Ave	VCP	15	345.28	Sag	D	Replace		CIP-006
I016B-I016A	02/16/24	DS	Western Ave	VCP	15	69.64	Deposits	В	No Action	2 point repairs	
1016-1015	02/21/24	DS	Western Ave	VCP	15	275.24	Infiltration	С	Point repair		
I017A-I017	02/16/24	DS	Western Ave	VCP	15	288.87	Infiltration, Deposits	E	Point Repair, Replace	"E" Pt Repair, "D" Replace	CIP-001, CIP-006
I017B-I016B	02/16/24	DS	Western Ave	VCP	15	243.18	Deposits	С	Rehabilitate (Lining)		
I017-I017B	02/16/24	DS	Western Ave	VCP	15	318.93	Deposits	С	Rehabilitate (Lining)		
1019-1018	04/05/24	DS	Katella Ave	VCP	24	529.94	Flow Capacity	С	No Action		
1020-1019	04/03/24	DS	Katella Ave	VCP	24	456.80	Cracks	С	Rehabilitate (Lining)		
1021-1006	04/03/24	US	Katella Ave	VCP	12	8.02	Broken pipe	D	Rehabilitate (Lining)		CIP-006
1021-1020	04/03/24	DS	Katella Ave	VCP	24	325.54	Deposits	В	No Action		
1022-1021	04/02/24	DS	Katella Ave	VCP	21	455.60	Grease	В	Clean		
1023-1022	04/02/24	DS	Katella Ave	VCP	21	183.66	Grease	В	Clean		
1024-1023	04/02/24	DS	Katella Ave	VCP	12	402.69	Deposits	С	Point repair	2 point repairs	
1025-1004	09/30/22	DS	10921 Date St	VCP	8	319.00	Broken pipe	D	Point repair		CIP-005
1026-1025	09/30/22	DS	Date St	VCP	8	327.00	Cracks	В	No Action		
1027-1026	09/30/22	US	Date St	VCP	8	347.00	Grease	С	Clean		
1028-1027	09/30/22	DS	Summerwood Ln	VCP	8	126.00	Joint Offset	В	No Action		
1029-1005	09/27/22	DS	Oak St	VCP	8	314.00	Broken pipe	D	Point repair		CIP-005
1030-1029	09/27/22	DS	Oak St	VCP	8	328.00	Grease	В	Clean		
1031-1030	09/27/22	DS	Oak St	VCP	8	331.00	Grease	В	Clean		
1032-1031	09/27/22	US	Oak St	VCP	8	202.00	N/A	А	No Action		
1033-1007	09/30/22	DS	Cedar St	VCP	8	317.00	Roots	С	Clean		
1034-1033	09/27/22	DS	Cedar St	VCP	8	329.00	Roots	В	Root Treatment		
1035-1034	09/27/22	DS	Cedar St	VCP	8	330.00	Grease	В	Clean		
1036-1035	09/27/22	DS	Cedar St	VCP	8	267.00	Roots	В	Root Treatment		
1037-1009	10/07/22	DS	Rose St	VCP	12	315.00	N/A	А	No Action		

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1038-1037	10/07/22	DS	10862 Rose St	VCP	12	335.00	Sag	D	Replace		CIP-006
1039-1038	10/07/22	DS	Rose St	VCP	12	330.00	Broken pipe	D	Point repair		CIP-005
1040-1039	10/06/22	DS	1075 Rose St	VCP	12	299.00	Cracks	В	No Action		
1041-1040	10/06/22	US	10662 Rose St-Easement	VCP	12	53.00	Cracks, Flow Capacity	С	Replace		
1041-1040	10/06/22	DS	10662 Rose St-Easement	VCP	12	295.00	Cracks, Flow Capacity	С	Replace		
1042-1041	10/06/22	DS	10662 Rose St-Easement	VCP	12	62.00	Broken pipe	E	Point repair		CIP-001
1043-1042	10/06/22	DS	Rose St	VCP	12	270.00	Cracks	С	Point repair		
1044-1043	10/06/22	DS	Rose St	VCP	12	322.00	Cracks	С	Rehabilitate (Lining)		
1045-1009	10/06/22	DS	10902 Rose St	VCP	12	302.00	N/A	А	No Action		
1046-1045	10/06/22	DS	10862 Rose St	VCP	12	307.00	N/A	А	No Action		
1047-1046	10/06/22	DS	10819 Rose St	VCP	12	328.00	Broken pipe	D	Point repair		CIP-005
1048-1047	10/06/22	DS	Rose St	VCP	12	300.00	Cracks	В	No Action		
1049-1048	10/06/22	US	10662 Rose St	VCP	12	108.00	Cracks, Flow Capacity	С	Replace		
1049-1048	10/06/22	DS	10662 Rose St	VCP	12	30.00	Grease, Flow Capacity	С	Replace		
1050-1049	10/06/22	DS	10558 Rose St	VCP	12	344.00	Joint Offset	В	No Action		
1051-1050	10/05/22	DS	10558 Rose St	VCP	12	333.00	N/A	А	No Action		
1052-1042	09/08/22	DS	7791 Sandalwood Way	VCP	8	89.00	Grease	В	Clean		
1053-1052	09/08/22	DS	Sandalwood Way	VCP-lined	8	151.00	Grease	С	Clean		
1054-1053	09/08/22	DS	10632 Tamarack Way	VCP	8	364.00	Cracks	С	Point repair		
1055-1054	09/08/22	DS	10632 Dogwood Way	VCP	8	200.00	Cracks	В	No Action		
1056-1055	09/08/22	DS	Sandalwood Way	VCP	8	155.00	Grease	В	Clean		
1057-1056	09/08/22	DS	7661 Sandalwood Way	VCP	8	124.00	Grease	В	Clean		
1058-1053	09/30/22	DS	Braeswood Way	VCP	8	142.00	Grease	В	Clean		
1059-1058	09/30/22	DS	7801 Braeswood Way	VCP	8	208.00	Grease	В	Clean		
1060-1059	09/26/22	US	10595 Braeswood Way	VCP	8	40.00	Grease	В	Clean		
1061-1060	09/22/22	DS	Braeswood Way	VCP	8	110.00	Joint Offset	С	Point repair		
1062-1061	09/22/22	DS	Summertree Ln	VCP	8	42.00	Joint Offset	В	No Action		
1063-1062	09/22/22	DS	Royal Oak Way	VCP	8	122.00	Cracks	В	No Action	2 point repairs	
1064-1063	09/22/22	DS	Royal Oak Way	VCP	8	29.00	Grease	В	Clean		
1065-1064	09/22/22	DS	Evergreen Way	VCP-lined	8	110.00	Grease	В	Clean		
1066-1065	09/08/22	DS	Beechwood Way	VCP	8	237.00	Cracks	В	No Action		
1067-1066	09/08/22	DS	Beechwood Way	VCP	8	202.00	Grease	С	Clean		
1068-1067	09/08/22	DS	7761 Beechwood Way	VCP	8	289.00	Grease	В	Clean		
1069-1054	09/08/22	DS	Tamarack Way	VCP	8	150.00	Grease	В	Clean		
1070-1055	09/08/22	DS	10632 Dogwood Way	VCP	8	105.00	Grease	В	Clean		
1072-1059	09/26/22	US	7821 Braweswood Way	VCP	8	74.00	N/A	А	No Action		

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1073-1066	09/19/22	DS	7758 Carrotwood Way	VCP	8	185.00	N/A	А	No Action		
1074-1073	09/19/22	DS	Blue Spruce Way	VCP	8	63.00	Grease	В	Clean		
1075-1073	09/19/22	DS	7740 Blue Spruce Way	VCP	8	70.00	N/A	Α	No Action		
1076-1067	09/08/22	DS	7712 Elder Way	VCP	8	144.00	Grease	В	Clean		
1077-1076	09/08/22	DS	7712 Elder Way	VCP	8	67.00	Grease	В	Clean		
1078-1104	09/08/22	DS	46 Pacific St	VCP	8	189.00	Grease	В	Clean		
1079-1078	09/08/22	DS	Pacific St	VCP	8	237.00	Grease	С	Clean		
1080-1079	08/25/22	DS	Flower Ave	VCP	8	301.00	Joint Offset	С	Point repair		
1081-1080	08/25/22	DS	Flower Ave	VCP	8	304.00	Grease	В	Clean		
1082-1081	08/25/22	DS	10561 Flower Ave	VCP	8	352.00	Grease	В	Clean		
1083-1082	08/25/22	US	Flower Ave	VCP	8	201.00	Roots	В	Root Treatment		
1084-1011	09/09/22	DS	Flower St	VCP	8	316.00	Broken pipe	E	Point repair		CIP-001
1085-1084	08/25/22	DS	Flower St	VCP	8	331.00	N/A	Α	No Action		
1086-1085	08/25/22	DS	Flower St	VCP	8	258.00	Grease	В	Clean		
1087-1013	02/22/24	DS	Western Ave	VCP	8	41.08	Deposits	В	No Action		
1088-1087	02/22/24	DS	Katella Ave	VCP	8	59.02	N/A	А	No Action		
1089-1088	02/22/24	US	Katella Ave	VCP	8	186.97	Deposits	С	Point repair	3 point repairs	
1092-1015	10/11/22	DS	7510 Syracuse Ave	VCP	8	164.00	Grease	В	Clean		
1093-1092	10/11/22	DS	Syracuse Ave	VCP	8	228.00	Grease	С	Clean		
1094-1093	10/11/22	DS	7574 Syracuse Ave	VCP	8	230.00	Grease	В	Clean		
1095-1092	10/11/22	DS	10811 Garrett St	VCP	8	363.00	N/A	Α	No Action		
1096-1094	10/11/22	DS	10818 Mitchell Dr	VCP	8	308.00	N/A	А	No Action		
1096-1095	10/11/22	DS	10818 Mitchell Dr	VCP	8	343.00	N/A	Α	No Action		
1098-1043	10/11/22	US	10671 Main St	VCP	8	104.00	Grease	В	Clean		
1099-1034	09/27/22	US	7777 Central Ave	VCP	8	118.00	N/A	А	No Action		
l102-l103	10/07/22	DS	10558 Rose St	VCP	18	356.00	N/A	Α	No Action		
I103-I104	10/07/22	DS	10618 Rose St	VCP	18	326.00	N/A	А	No Action		
l104-l105	10/07/22	DS	Rose St-Easement	VCP	18	418.00	Cracks	С	Replace		
I105-I106	10/10/22	DS	10751 Rose St	VCP	18	240.00	Grease	В	Clean		
I105-I106	03/22/24	DS	10751 Rose St	VCP	18	237.37	Flow Capacity	С	Clean		
I106-I107	10/10/22	DS	10781 Rose St	VCP	18	321.00	Grease	В	Clean		
I106-I107	03/22/24	DS	10781 Rose St	VCP	18	321.23	Flow Capacity	С	Clean		
1107-1108	10/10/22	DS	10862 Rose St	VCP	18	336.00	Grease	В	Clean		
l107-l108	03/25/24	DS	10862 Rose St	VCP	18	332.05	Flow Capacity	В	No Action		
l108-l010	10/10/22	DS	Rose St	VCP	18	309.00	Grease	В	Clean		
1108-1010	04/02/24	DS	Rose St	VCP	18	304.00	Infiltration	С	Point repair		

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J001-I011	04/01/24	US	Katella Ave	VCP	10	303.00	Deposits	В	No Action		
J002-J001	01/11/24	US	Katella Ave	VCP	10	98.00	Broken pipe	D	Point repair		CIP-005
J003-J002	03/29/24	DS	Katella Ave	VCP	10	250.39	Broken pipe	С	Point repair		
J004-J003	03/29/24	US	Katella Ave	VCP	10	314.82	Deposits	В	Clean		
J004-J015	03/29/24	DS	Katella Ave	VCP	12	5.21	Broken pipe	D	Rehabilitate (Lining)		CIP-006
J005-J004	03/29/24	DS	Katella Ave	VCP	10	262.82	N/A	А	No Action		
J006-J005	03/28/24	US	Katella Ave	VCP	10	42.48	N/A	А	No Action		
J007-J006	03/28/24	DS	Katella Ave	VCP	10	165.73	Sag	D	Replace		CIP-006
J008-J007	03/28/24	DS	8188 Katella Ave	VCP	10	203.10	Cracks	С	Point repair		
J009-J008	03/28/24	DS	8302 Katella Ave	VCP	10	324.84	Cracks	С	Point repair	2 point repairs	
J010A-J010	08/22/22	US	Boatman Ave	VCP	8	275.00	Joint Offset	С	Point repair		
J010B-J010A	08/22/22	US	Boatman Ave	VCP	8	260.00	N/A	А	No Action		
J010-J009	03/28/24	DS	8352 Katella Ave	VCP	10	193.18	Flow Capacity	В	No Action		
J011-J010	03/28/24	DS	8372 Katella Ave	VCP	10	152.90	N/A	А	No Action		
J012-J011	03/28/24	DS	8422 Katella Ave	VCP	10	346.58	Cracks	В	No Action		
J013-I024	03/29/24	DS	Katella Ave	VCP	12	333.16	Grease	С	Clean		
J013-J002	01/12/24	US	Katella Ave	VCP	8	9.00	Joint Offset	D	Replace		CIP-006
J014-J013	03/29/24	DS	Katella Ave	VCP	12	242.20	Deposits	С	Rehabilitate (Lining)		
J015-J014	03/29/24	US	Katella Ave	VCP	12	324.04	Deposits	С	Rehabilitate (Lining)		
J016-K002	03/28/24	DS	Katella Ave	VCP	8	39.78	Cracks	D	Rehabilitate (Lining)		CIP-006
J017-J016	03/28/24	DS	Katella Ave	VCP	8	145.89	Cracks	С	Point repair		
J018-J017	03/28/24	DS	Katella Ave	VCP	8	72.10	N/A	А	No Action		
J019-J018	03/28/24	DS	8381 Katella Ave	VCP	8	282.76	N/A	А	No Action		
J020-J001	08/24/22	DS	Beach Blvd	VCP	8	316.00	N/A	А	No Action		
J021-J020	08/24/22	DS	10861 Beach Blvd	VCP	8	330.00	Cracks	В	No Action		
J022-J021	08/24/22	DS	10851 Beach Blvd	VCP	8	247.00	N/A	А	No Action		
J023-J003	08/16/22	DS	Chestnut St	VCP	8	316.00	Grease	В	Clean		
J024-J023	08/16/22	DS	10900 Chestnut Ave	VCP	8	151.00	Cracks	В	No Action		
J025-J024	08/16/22	DS	Grand Ave	VCP	8	175.00	Cracks	В	No Action		
J026-J023	08/16/22	DS	Chester Ave	VCP-lined	8	159.00	Grease	В	Clean		
J027-J004	03/29/24	US	Katella Ave	VCP	8	14.63	N/A	А	No Action		
J028A-J004	08/17/22	DS	Court St	VCP	8	318.00	Grease	В	Clean		
J028-J027	08/17/22	DS	10921 Court St	VCP	8	172.00	Debris, Flow Capacity	E	Clean and CCTV		
J029-J028	08/17/22	DS	Easement	VCP	8	6.30	Debris, Flow Capacity	E	Clean and CCTV		
J029-J028	11/23/22	DS	Easement	VCP	8	17.00	Grease, Flow Capacity	E	Clean and CCTV		
J030-J029	08/16/22	DS	Easement	VCP	8	181.00	Debris, Flow Capacity	E	Clean and CCTV		

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J031-J030	08/16/22	DS	Court St	VCP	8	263.00	Grease	В	Clean		
J032-J031	08/16/22	DS	8171 Monroe Ave	VCP	8	327.00	Grease	В	Clean		
J033-J032	08/16/22	DS	Monroe Ave	VCP	8	352.00	Grease	В	Clean		
J034-J033	08/16/22	DS	Monroe Ave	VCP	8	7.00	Grease	С	Clean		
J036-J035	08/12/22	DS	8362 monroe ave	VCP	8	346.00	Grease	В	Clean		
J037-J036	08/12/22	DS	8362 monroe ave	VCP	8	304.00	Grease	С	Clean		
J038-J037	08/12/22	DS	10781 monroe ave	VCP	8	153.00	Grease	С	Clean		
J039-J030	08/16/22	DS	ELECTRIC AVE	VCP	8	185.10	Cracks	В	No Action		
J040-J039	08/12/22	DS	ELECTRIC AVE	VCP	8	246.00	N/A	А	No Action		
J041-J040	08/12/22	DS	ELECTRIC AVE	VCP	8	256.00	Grease, Flow Capacity	В	Clean		
J042-I079	10/26/22	US	Pacific St	VCP	8	303.00	Sag	С	Clean		
J043-J042	01/11/24	US	Beach Blvd	VCP	8	105.10	Sag	С	Replace		
J044-J043	08/22/22	DS	Pacifixc St	VCP	8	247.00	Grease	С	Clean		
J045-J044	08/22/22	DS	8097 Pacific St	VCP	8	329.00	Grease	В	Clean		
J046-J045	08/22/22	DS	10700 Cour St	VCP	8	99.00	Roots	В	Root Treatment		
J047-J046	08/22/22	DS	Court St	VCP	8	247.00	Grease	В	Clean		
J048-J047	08/22/22	DS	Court St	VCP	8	254.00	Grease	В	Clean		
J049-J048	08/19/22	DS	10545 Court St	VCP	8	349.00	Grease	С	Clean		
J050-J049	08/19/22	DS	10545 Court St	VCP	8	198.00	Grease	В	Clean		
J051-J044	08/25/22	DS	Chestnut Ave	VCP	8	305.00	Grease	В	Clean		
J052-J051	08/25/22	DS	Chestnut Ave	VCP	8	306.00	N/A	А	No Action		
J053-J052	08/25/22	DS	Chestnut Ave	VCP	8	351.00	N/A	А	No Action		
J054-J053	08/25/22	DS	10552 Chestnut Ave	VCP	8	202.00	Cracks	В	No Action		
J055-J052	08/25/22	US	Main St	VCP	8	151.00	N/A	А	No Action		
J056-J044	08/16/22	DS	Chestnut St	VCP	8	384.00	Cracks	В	No Action		
J057-J056	08/16/22	DS	Monroe Ave	VCP	8	319.00	N/A	А	No Action		
J058-J057	08/16/22	DS	8001 Court St	VCP	8	222.00	N/A	А	No Action		
J059-J057	08/12/22	US	8101 Court St	VCP	8	249.00	Debris	В	Clean		
J060-J042	08/22/22	DS	Beach Blvd	VCP	8	297.00	N/A	А	No Action		
J061-J060	08/22/22	DS	10621 Beach Blvd	VCP	8	302.00	N/A	А	No Action		
J062-J061	08/22/22	DS	Beach Blvd	VCP	8	349.00	N/A	А	No Action		
J063-J062	08/22/22	US	10551 Beach Blvd	VCP	8	174.00	N/A	А	No Action		
J064-J043	01/10/24	DS	Beach Blvd	VCP	8	302.00	Flow Capacity	С	Clean		
J065-J064	01/10/24	DS	Beach Blvd	VCP	8	306.00	N/A	А	No Action		
J066-J065	01/10/24	DS	Beach Blvd	VCP	8	352.00	Joint Offset	С	Point repair		
J067-J066	01/10/24	US	Beach Blvd	VCP	8	218.03	Broken pipe	D	Point repair		CIP-005

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J068-J046	08/17/22	DS	10702 Pacific St	VCP	8	327.00	Roots	В	Root Treatment		
J069-J068	08/17/22	DS	Pacific St	VCP	8	324.00	Grease	В	Clean		
J070-J069	08/17/22	DS	Fern Ave	VCP	8	247.00	N/A	А	No Action		
J071-J070	08/17/22	DS	Fern Ave	VCP	8	252.00	N/A	А	No Action		
J072-J071	08/17/22	DS	10551 Fern St	VCP	8	350.00	N/A	Α	No Action		
J073-J072	08/17/22	US	10551 Fern St	VCP	8	100.00	Grease	В	Clean		
J074-J068	08/18/22	DS	Sycamore Ave	VCP	8	247.00	N/A	А	No Action		
J075-J074	08/18/22	DS	10662 Cycamore Ave	VCP	8	251.00	N/A	Α	No Action		
J076-J075	08/18/22	DS	Sycamore Ave	VCP	8	349.00	N/A	Α	No Action		
J077-J076	08/18/22	US	Sycamore Ave	VCP	8	200.00	Lining Defect	D	Rehabilitate (Lining)		CIP-006
J078-K033	08/17/22	DS	8401 Standustrial St	VCP	8	324.00	Grease, Flow Capacity	С	Clean		
J079-J078	08/17/22	DS	8354 Standustrial St	VCP	8	323.00	N/A	Α	No Action		
J080-J079	08/17/22	DS	Standustrial St	VCP	8	297.00	N/A	Α	No Action		
J081-J052	08/22/22	US	8051 Main St	VCP	8	155.00	N/A	А	No Action		
J082-J080	08/12/22	US	STANDUSTRIAL ST	VCP	8	31.00	Cracks	В	No Action		
K001-J012	03/28/24	DS	Katella Ave	VCP	10	336.36	Cracks	С	Point repair	2 point repairs	
K003-K002	03/28/24	US	Katella Ave	VCP	8	29.16	Broken pipe	D	Point repair		CIP-005
K004-K003	08/24/22	DS	8555 Katella Ave	VCP	8	317.00	Grease	С	Clean		
K005-K004	08/24/22	DS	8615 Katella Ave	VCP	8	324.00	Broken pipe	Е	Point repair		CIP-001
K006-K003	08/19/22	DS	Dale St	VCP	8	206.00	Cracks	В	No Action		
K007A-K007	08/19/22	DS	Dale St	VCP	8	403.00	N/A	А	No Action		
K007-K006	08/19/22	DS	Dale St	VCP	8	207.00	Joint Offset	С	Point repair		
K008-K007	08/12/22	DS	Central Ave	VCP	8	260.00	Roots	С	Rehabilitate (Lining)		
K009-K008	08/12/22	DS	Central Ave	VCP	8	283.00	Debris	С	Clean		
K010-E010	08/11/22	DS	10537 Sherrill St	VCP	8	124.00	Grease	С	Clean		
K011-K010	08/11/22	DS	Sherrill St	VCP	8	308.00	Grease	С	Clean		
K012-K011	08/11/22	DS	Sherrill St	VCP	8	202.00	Roots	С	Rehabilitate (Lining)		
K013-K012	08/10/22	DS	10631 Sherrill St	VCP	8	22.00	Grease	С	Clean		
K014-K013	08/10/22	DS	10651 Sherrill St	VCP	8	137.00	Grease	С	Clean		
K015-K014	08/10/22	DS	Sherrill St	VCP	8	131.00	Grease	В	Clean		
K016-K015	08/10/22	DS	8860 Pacific Ave	VCP	8	128.00	Cracks	С	Point repair		
K017-K016	08/10/22	DS	Pacific Ave	VCP	8	297.00	Grease	С	Clean		
K018-K017	08/10/22	DS	Pacific Ave	VCP	8	297.00	Grease	В	Clean		
K019-K018	08/10/22	DS	Pacific Ave	VCP	8	280.00	Cracks	В	No Action		
K020-K013	08/11/22	DS	Tina Way	VCP	8	357.00	Roots	С	Rehabilitate (Lining)		
K021-K020	08/11/22	DS	8920 Tina Way	VCP	8	357.00	Roots	С	Rehabilitate (Lining)		

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K022-K021	08/11/22	DS	Tina Way	VCP	8	357.00	Debris	В	Clean		
K023-K024	08/12/22	DS	Stardust Ln	VCP	8	284.00	Grease	В	Clean		
K024-K025	08/12/22	DS	Stardust Ln	VCP	8	282.00	Debris	D	Clean and CCTV		
K025-K011	08/12/22	DS	Stardust Ln	VCP	8	284.00	Debris	В	Clean		
K026-K025	08/11/22	DS	Sylvan St	VCP	8	200.00	Cracks	С	Rehabilitate (Lining)		
K027-K024	08/11/22	DS	Verona St	VCP	8	200.00	Debris	В	Clean		
K028-K023	08/11/22	DS	Kenmore St	VCP	8	200.00	Roots	С	Rehabilitate (Lining)		
K029-E012	08/11/22	DS	Sylvan St	VCP	8	286.00	Roots	С	Rehabilitate (Lining)		
K030-E001	08/19/22	DS	Dale St	VCP	8	187.00	Grease, Flow Capacity	В	Clean		
K031-K030	08/19/22	DS	Dale St	VCP	8	194.00	Grease, Flow Capacity	С	Clean		
K032-K031	08/19/22	DS	Dale St	VCP	8	151.00	Grease, Flow Capacity	С	Clean		
K033-K032	08/19/22	DS	10500 Dale Ave	VCP	8	349.00	Grease, Flow Capacity	С	Clean		
K034-K813	08/08/22	DS	Magnolia Ave	VCP	8	309.00	Grease	В	Clean		
K035-K034	08/08/22	DS	Easement	VCP	8	284.00	Grease	В	Clean		
K036-K035	08/08/22	DS	Magnolia Ave	VCP	8	284.00	Grease	В	Clean		
K039-J038	03/21/24	DS	Monroe Ave	VCP-lined	8	66.63	Deposits	С	Replace		
K040-K039	08/19/22	DS	Dale St	VCP	8	254.00	N/A	А	No Action		
K812-L032	08/10/22	DS	Carport 31-Easement	VCP	8	318.00	Grease	В	Clean		
K813-K812	08/08/22	US	Easement	VCP	8	346.00	Grease	В	Clean		
L001A-L001	08/10/22	US	Magnolia Ave	VCP	8	85.10	Grease, Flow Capacity	E	Clean and CCTV		
L001-L002	08/10/22	DS	Magnolia Ave	VCP	8	257.00	Grease	D	Clean and CCTV		
L002-L003	08/10/22	DS	Magnolia Ave	VCP	8	175.00	Grease	С	Clean		
L003-K806	08/15/22	DS	Magnolia St	VCP	8	127.00	Grease	С	Clean		
L010-L032	08/15/22	DS	Magnolia St	VCP	8	296.80	Grease	В	Clean		
L011-L010	08/15/22	DS	Magnolia St	VCP	8	101.00	N/A	А	No Action		
L012-L011	08/15/22	DS	Magnolia St	VCP	8	97.00	N/A	А	No Action		
L013-F011	08/18/22	DS	Magnolia St	VCP	8	205.00	Grease	В	Clean		
L014-K023	08/11/22	DS	Stardust Ln	VCP	8	307.00	Grease	В	Clean		
L015-L014	08/11/22	DS	Magnolia Ave	VCP	8	201.00	Grease	В	Clean		
L016-L001	08/10/22	US	Easement	VCP	8	204.00	Debris	D	Clean and CCTV		
L017-L003	08/15/22	US	Stacie Ln/Easement	VCP	8	11.00	Grease	С	Clean		
L020-L803	08/08/22	DS	Alley	VCP	8	211.00	Grease	D	Clean and CCTV		
L021-L020	08/08/22	DS	Alley	VCP	8	204.00	Debris	В	Clean		
L022-L021	08/08/22	US	Cris Ave	VCP	8	66.70	Debris	В	Clean		
L023-L020	08/05/22	DS	Alley	VCP	8	336.00	Grease	В	Clean		
L024-L023	08/05/22	DS	Vinevale St	VCP	8	204.00	Grease	В	Clean		

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L025-L024	08/04/22	DS	Alley/88-easement	VCP	8	64.00	Grease	В	Clean		
L026-L025	08/04/22	DS	Alley	VCP	8	108.00	Grease	В	Clean		
L027-L026	08/04/22	DS	Alley	VCP	8	286.00	Grease	В	Clean		
L028-L027	08/04/22	DS	Alley/121-easement	VCP	8	90.00	Cracks	С	Point repair		
L029-L026	08/04/22	DS	Alley/easement	VCP	8	328.00	Cracks	В	No Action		
L030-L029	08/04/22	DS	Alley	VCP	8	343.00	Grease	В	Clean		
L031A-L031	08/05/22	DS	Alley/easement	VCP	8	267.00	Grease	В	Clean		
L031B-L031A	08/05/22	DS	Alley	VCP	8	272.00	Grease	В	Clean		
L031-L023	08/05/22	DS	Vinevale St	VCP	8	32.00	Grease	В	Clean		
L032-L032A	08/10/22	DS	10775 Magnolia Ave	VCP	8	38.00	Grease	D	Clean and CCTV		
L803-L007	08/05/22	DS	Pacific Ave	VCP	8	184.00	Cracks	С	Rehabilitate (Lining)		
L804-L803	08/05/22	DS	Pacific Ave	VCP	8	120.00	Cracks	С	Rehabilitate (Lining)		
L805-L804	08/05/22	DS	Pacific Ave	VCP	8	318.00	Cracks	D	Rehabilitate (Lining)		CIP-006
L806-L805	08/05/22	DS	Pacific Ave	VCP	8	318.00	Cracks	С	Rehabilitate (Lining)		
M001-H023	02/29/24	US	Katella Ave	VCP	8	75.35	Sag	С	Replace		
M002-M001	02/28/24	DS	7106 Katella Ave	VCP	8	248.89	Deposits	С	Rehabilitate (Lining)		
M003-M002	02/28/24	DS	7117 Katella Ave	VCP	8	293.78	Deposits	С	Rehabilitate (Lining)		
M004-M003	10/28/22	DS	Easement	VCP	8	102.00	Debris	В	Clean		
M005-M004	10/28/22	DS	Grant Way	VCP	8	227.00	Debris	С	Clean		
M006-M005	10/28/22	US	Gentry Way	VCP	8	363.00	Grease	В	Clean		
M007-M006	10/28/22	DS	Gentry Way	VCP	8	93.00	Grease	В	Clean		
M008-M007	10/28/22	US	Bradford Pl	VCP	8	59.00	Grease	В	Clean		
M009-M007	10/28/22	DS	Bradford Pl	VCP	8	163.00	N/A	А	No Action		
M010-M009	10/28/22	DS	Emerson Way	VCP	8	214.00	N/A	А	No Action		
M011-M010	10/28/22	DS	Fulton Way	VCP	8	330.00	N/A	А	No Action		
M012-M011	10/28/22	US	Trojan Way	VCP	8	123.00	N/A	А	No Action		
M013-M004	10/31/22	DS	Marshall Way	VCP	8	251.00	Debris	В	Clean		
M014-M013	10/31/22	US	Augusta Way	VCP	8	78.00	Debris	В	Clean		
M015-M008	10/28/22	DS	Marryat Way	VCP	8	97.00	Grease	В	Clean		
M016-M005	10/28/22	US	Custer Way	VCP	8	64.00	Debris	В	Clean		
M017-M016	10/31/22	DS	11074 Grant Way	VCP	8	59.00	Grease	С	Clean		
M018-M017	10/31/22	DS	Grant Way	VCP	8	241.00	Grease	С	Clean		
M019-M018	10/31/22	US	Fulton Way	VCP	8	114.00	Grease	С	Clean		
M020-M019	11/01/22	DS	7070 Fulton Way	VCP	8	29.00	N/A	А	No Action		
M021-M020	11/01/22	US	7070 Fulton Way	VCP	8	147.00	Grease	В	Clean		
M022-M017	11/01/22	DS	Auburn Way	VCP	8	215.00	Grease	С	Clean		

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M023-M022	11/01/22	DS	7054 Auburn Way	VCP	8	198.00	Joint Offset	D	Point repair		CIP-005
M024-M023	11/01/22	DS	11110 Lambert Way	VCP	8	243.00	Grease	В	Clean		
M025-M024	11/01/22	US	11110 Lambert Way	VCP	8	88.00	N/A	А	No Action		
M026-M024	11/01/22	US	11110 Lambert Way	VCP	8	85.00	N/A	А	No Action		
M027-M024	11/02/22	DS	7017 Longford	VCP	8	184.10	Grease	В	Clean		
M028-M027	11/02/22	DS	11201 Lambert Way	VCP	8	67.00	Grease	В	Clean		
M029-M028	11/02/22	DS	11201 Lambert Way	VCP	8	35.00	Grease	В	Clean		
M030-M029	11/02/22	DS	7021 Hampton Way	VCP	8	232.00	Grease	В	Clean		
M031-M030	11/02/22	DS	7021 Hampton Way	VCP	8	208.00	Roots	В	Root Treatment		
M032-M031	11/02/22	DS	7051 Hamton Way	VCP	8	211.00	Grease	С	Clean		
M033-M028	11/02/22	US	11201 Lambert Way	VCP	8	81.00	Grease	В	Clean		
M034-M029	11/02/22	DS	11202 Austin Way	VCP	8	159.00	Grease	В	Clean		
M035-M034	11/02/22	DS	11202 Austin Way	VCP	8	98.00	Grease	В	Clean		
M036-M018	11/01/22	DS	Fulton Way	VCP	8	334.00	Grease	С	Clean		
M037-M036	11/01/22	DS	Fulton Way	VCP	8	128.00	Grease	В	Clean		
M038-M036	11/02/22	DS	11133 Hampton Way	VCP	8	208.00	N/A	А	No Action		
M039-M038	11/02/22	DS	11160 Hampton Way	VCP	8	223.00	N/A	А	No Action		
M040-M039	11/02/22	US	7110 Kelton Way	VCP	8	153.00	N/A	А	No Action		
M041-M040	11/02/22	US	11169 Burton Way	VCP	8	128.00	N/A	А	No Action		
M042-M040	11/02/22	US	11169 Burton Way	VCP	8	109.00	Grease	С	Clean		
M043-H028	10/31/22	DS	7251 Bradford St	VCP	8	303.00	Grease	С	Clean		
M044-M043	10/31/22	DS	Bradford Pl	VCP	8	150.00	Grease	С	Clean		
M045-M044	10/31/22	US	Bradford Pl	VCP	8	33.00	N/A	А	No Action		
M046-M045	10/31/22	DS	Carlton Way	VCP	8	112.00	N/A	А	No Action		
M047-M046	10/31/22	US	Penn Way	VCP	8	114.00	Grease	В	Clean		
M048-M044	10/31/22	US	Carlton Way	VCP	8	139.00	Grease	В	Clean		
M049-M048	10/31/22	US	Carlton Way	VCP	8	68.00	N/A	А	No Action		
M050-M048	10/31/22	DS	Newton Way	VCP	8	263.00	Grease	В	Clean		
M051-M050	10/31/22	US	Sherman Way	VCP	8	93.00	Grease	С	Clean		
M052-M050	10/31/22	US	Sherman Way	VCP	8	96.00	Grease	D	Clean and CCTV		
M053-M043	10/26/22	DS	Rutledge Ave	VCP	8	162.00	Grease	С	Clean		
M054-M053	10/26/22	DS	Rutledge Ave	VCP	8	200.00	Grease	С	Clean		
M055-M054	10/26/22	DS	Rutledge Ave	VCP	8	173.00	Cracks	В	No Action		
M056-M055	10/26/22	DS	Rutledge Ave	VCP	8	122.00	N/A	А	No Action		
M057-M056	10/26/22	DS	Rutledge Ave	VCP	8	129.00	N/A	А	No Action		
M058-M057	10/26/22	DS	Ewell Way	VCP	8	270.00	Cracks	В	No Action		

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M059-M058	10/26/22	US	11214 Hardee Way	VCP	8	173.00	Roots	С	Clean		
M060-M055	10/25/22	DS	Fulton Way	VCP	8	109.00	Grease	С	Clean		
M061-M060	10/25/22	DS	Fulton Way	VCP	8	114.00	Grease	В	Clean		
M062-M060	10/25/22	DS	Bragg way	VCP	8	161.00	Grease	В	Clean		
M063-M062	10/25/22	DS	Bragg way	VCP	8	47.00	Grease	В	Clean		
M064-M063	10/25/22	DS	Bragg way	VCP	8	43.00	Grease	В	Clean		
M065-M064	10/25/22	US	Brago way	VCP	8	58.00	Grease	В	Clean		
M066-N092	10/20/22	DS	Easement	VCP	8	109.00	Grease	В	Clean		
M067-M066	10/20/22	DS	Easement	VCP	8	304.00	Broken pipe	D	Point repair		CIP-005
M068-N094	10/20/22	DS	Rutledge Ave	VCP	8	107.00	Grease	С	Clean		
M069-M068	10/20/22	DS	Rutledge Ave	VCP	8	62.00	Grease	С	Clean		
M070-M069	10/20/22	DS	Rutledge Ave	VCP	8	128.00	Grease	В	Clean		
M071-M070	10/25/22	DS	Rutledge Ave	VCP	8	139.00	Cracks	С	Point repair	2 point repairs	
M072-M071	10/25/22	DS	Rutledge Ave	VCP	8	50.00	Grease	В	Clean		
M073-M072	10/25/22	DS	Rutledge Ave	VCP	8	47.00	Grease	В	Clean		
M074-M073	10/25/22	DS	Rutledge Ave	VCP	8	72.00	Grease	В	Clean		
M075-M074	10/25/22	DS	Rutledge Ave	VCP	8	149.00	Cracks	В	No Action		
M076-M075	10/25/22	DS	Rutledge Ave	VCP	8	21.00	Roots	В	Root Treatment		
M077-M076	10/25/22	DS	Rutledge Ave	VCP	8	181.00	Roots	С	Clean		
M078-M077	10/25/22	DS	11214 Rutledge Dr	VCP	8	12.00	Cracks	В	No Action		
M079-M078	10/25/22	DS	Rutledge Ave	VCP	8	106.00	Roots	С	Clean		
M080-M068	10/20/22	US	Eaton Way	VCP	8	180.00	N/A	А	No Action		
M081-M070	10/20/22	US	Radcliff Way	VCP	8	38.00	N/A	Α	No Action		
M082-M081	10/20/22	DS	Radcliff Way	VCP	8	220.00	Joint Offset	В	No Action		
M083-M082	10/20/22	US	7400 Ascot Way	VCP	8	121.00	N/A	Α	No Action		
M084-M069	10/20/22	DS	Windemere Way	VCP	8	222.00	Joint Offset	В	No Action		
M085-M084	10/20/22	US	Windemere Way	VCP	8	321.00	Grease	С	Clean		
M086-M072	10/20/22	DS	Camden way	VCP	8	171.00	N/A	А	No Action		
M087-M086	10/20/22	US	Camden way	VCP	8	279.00	N/A	А	No Action		
M088-M073	10/25/22	US	Roxbury Way	VCP	8	178.00	Grease	В	Clean		
M089-M075	10/25/22	DS	Dover way	VCP	8	136.00	Grease	С	Clean		
M090-M089	10/25/22	US	Dover way	VCP	8	104.00	Grease	С	Clean		
M091-M089	10/25/22	US	Kent way	VCP	8	85.00	Grease	В	Clean		
M092-M077	10/25/22	US	11230 Hood Way	VCP	8	213.00	N/A	А	No Action		
M093-M092	10/25/22	DS	7241 Kirby Way	VCP	8	172.00	Grease	В	Clean		
M094-M093	10/25/22	US	7241 Kirby Way	VCP	8	266.00	Cracks	В	No Action	2 point repairs	

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M095-N013	10/20/22	DS	Carie Ln	VCP	8	389.00	N/A	А	No Action		
N002-N001	04/09/24	DS	Western Ave	VCP	8	4.01	N/A	А	No Action		
N003-N002	11/04/22	DS	Orangewood Ave	VCP	8	137.00	Grease	С	Clean		
N004-N003	11/04/22	DS	Orangewood Ave	VCP	8	354.00	Grease	С	Clean		
N008-N002	04/09/24	DS	Western Ave	VCP	8	178.85	Sag	В	No Action		
N009-N010	04/08/24	US	Western Ave	VCP	8	404.19	Sag	D	Replace		CIP-006
N010-N006	04/08/24	DS	11292 Western Ave	VCP	8	5.51	Cracks, Joint Offset	С	Replace		
N011-N012	04/08/24	US	Western Ave	VCP	8	146.79	Sag	В	No Action		
N012-N007	04/08/24	DS	Western Ave	VCP	8	7.72	N/A	А	No Action		
N013-N012	04/08/24	DS	Western Ave	VCP	8	79.16	Broken pipe	D	Point repair	2 point repairs	CIP-005
N014-N013	04/08/24	DS	Western Ave	VCP	8	86.57	N/A	А	No Action		
N015-N014	04/08/24	DS	Western Ave	VCP	8	116.13	N/A	А	No Action		
N017-N018	02/22/24	US	Western Ave	VCP	8	132.06	N/A	А	No Action		
N018-N092	02/22/24	DS	11050 Western Ave	VCP	8	46.79	N/A	А	No Action		
N019-N018	02/22/24	US	Western Ave	VCP	8	180.66	N/A	А	No Action		
N020-N019	11/04/22	DS	Alley katella & Industrial	VCP	8	368.00	Grease	В	Clean		
N021-N018	10/19/22	DS	7541 Industrial Way	VCP	8	151.00	N/A	А	No Action		
N022-N021	10/19/22	DS	Industrial Way	VCP	8	355.00	N/A	А	No Action		
N023-N022	10/19/22	US	Mercantile	VCP	8	314.00	N/A	А	No Action		
N024-I021	10/07/22	DS	1 Serena	VCP	12	152.00	N/A	А	No Action		
N025-N024	10/07/22	DS	Serena	VCP	15	103.00	N/A	А	No Action		
N026-N025	10/07/22	DS	Serena	VCP	15	129.00	N/A	А	No Action		
N027-N026	10/07/22	DS	Serena	VCP	15	18.00	N/A	А	No Action		
N028-N027	10/07/22	DS	15 Serena	VCP	15	115.00	N/A	А	No Action		
N029-N028	10/07/22	DS	20 Serena	VCP	15	26.00	N/A	А	No Action		
N030-N029	10/07/22	DS	27 Serena	VCP	15	136.00	N/A	А	No Action		
N031-N030	10/07/22	DS	29 Serena	VCP	15	109.00	N/A	А	No Action		
N032-N095	10/05/22	DS	11186 Santa Maria St	VCP	12	134.00	Grease	В	Clean		
N033-N032	10/05/22	DS	7722Ruthann Ave	VCP	12	327.00	Cracks	В	No Action		
N034-N033	10/05/22	DS	11251 Santa Rosalia St	VCP	12	296.00	Grease	В	Clean		
N035-N034	10/05/22	DS	Santa Rosalia St	VCP	12	296.00	Cracks	С	Rehabilitate (Lining)		
N036-N035	10/05/22	DS	11361 Santa Rosalia	VCP	12	289.00	Cracks, Broken Pipe	D	Rehabilitate (Lining)		CIP-006
N037-N036	10/05/22	DS	11411 Santa Rosalia St	VCP	12	292.00	Cracks	С	Rehabilitate (Lining)		
N038-N037	10/05/22	DS	11461 Santa Rosalia St	VCP	12	331.00	Cracks	С	Rehabilitate (Lining)		
N039-N038	10/03/22	DS	7731 Organewood Ave	VCP	8	348.00	Cracks	С	Point repair		
N040-N039	10/03/22	DS	7792 Orangewood Ave	VCP	8	352.00	Cracks	С	Rehabilitate (Lining)		

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N041-N040	09/30/22	DS	7862 Orangewood Ave	VCP	8	351.00	Cracks	С	Rehabilitate (Lining)		
N042-N041	09/30/22	DS	Orangewood Ave	VCP-lined	8	355.00	Grease	В	Clean		
N043-N042	09/30/22	US	7922 Orangewood Ave	VCP	8	157.00	Cracks	В	No Action		
N044-N024	10/03/22	DS	Serena Way	VCP	8	191.00	Grease	В	Clean		
N045-N044	10/18/22	DS	Serena	VCP	8	116.00	Grease	В	Clean		
N046-N045	10/03/22	DS	Serena Way	VCP	8	32.00	Grease	В	Clean		
N047-N046	04/12/24	DS	Serena	VCP	8	111.22	N/A	А	No Action		
N047-N046	10/18/22	DS	Serena	VCP	8	116.00	Grease	В	Clean		
N048-N047	10/03/22	DS	Serena Way	VCP	8	17.00	N/A	Α	No Action		
N049-N048	10/11/22	DS	Serena	VCP	8	148.00	N/A	А	No Action		
N050-N049	10/18/22	DS	30 Serena	VCP	8	176.00	N/A	А	No Action		
N051-N025	10/20/22	US	Savanna	VCP	8	75.00	N/A	Α	No Action		
N052-N026	10/20/22	US	Orchid&Serena	VCP	8	100.00	N/A	А	No Action		
N053-N027	10/20/22	US	Orchid	VCP	8	85.00	N/A	А	No Action		
N054-N028	10/18/22	US	Sandpiper & Serena	VCP	8	100.00	N/A	А	No Action		
N055-N029	10/17/22	US	Redwood & Serena	VCP	8	84.00	N/A	А	No Action		
N056-N030	10/11/22	US	27 Serena	VCP	8	85.00	N/A	А	No Action		
N057-N033	10/10/22	DS	7782 Ruthann Ave	VCP	8	288.00	Cracks	С	Rehabilitate (Lining)		
N058-N057	10/10/22	DS	7832 Ruthann Ave	VCP	8	307.00	Cracks	С	Rehabilitate (Lining)		
N059-N058	10/10/22	DS	7891 Ruthann Ave	VCP	8	307.00	Cracks	С	Rehabilitate (Lining)		
N060-N059	10/10/22	DS	7952 Ruthann Ave	VCP	8	325.00	Cracks, Broken Pipe	D	Rehabilitate (Lining)		CIP-006
N061-N060	10/10/22	US	7952 Ruthann Ave	VCP	8	90.00	N/A	А	No Action		
N062-N061	01/12/24	DS	Beach Blvd	VCP	8	244.00	Cracks	В	No Action		
N063-N062	01/12/24	DS	11151 Beach Blvd	VCP	8	230.00	N/A	А	No Action		
N064-N034	10/10/22	DS	11181 Santa Rosalia	VCP	8	354.00	Cracks	D	Rehabilitate (Lining)		CIP-006
N065-N064	10/10/22	US	11181 Santa Rosalia	VCP	8	193.00	Cracks	D	Rehabilitate (Lining)	2 point repairs	CIP-006
N066-N035	10/04/22	DS	Joel Ave	VCP	8	351.00	Joint Offset	D	Point repair		CIP-005
N067-N066	10/04/22	DS	Joel Ave	VCP	8	350.00	Cracks, Broken Pipe	D	Rehabilitate (Lining)		CIP-006
N068-N067	10/04/22	DS	7851 Joel Ave	VCP	8	353.00	Cracks	D	Rehabilitate (Lining)		CIP-006
N069-N068	10/04/22	DS	Joel Ave	VCP	8	356.00	Cracks, Broken Pipe	D	Rehabilitate (Lining)		CIP-006
N070-N069	10/04/22	US	7921 Joel Ave	VCP	8	112.00	Joint Offset	С	Point repair		
N071-N036	10/03/22	DS	Eileen St	VCP	8	354.00	Grease	С	Clean		
N072-N071	10/04/22	DS	7792 Eileen St	VCP	8	352.00	Cracks	С	Point repair		
N073-N072	10/04/22	DS	7852 Eileen St	VCP	8	353.00	Cracks	С	Point repair		
N074-N073	10/04/22	DS	7921 Eileen St	VCP	8	353.00	Broken pipe	D	Point repair		CIP-005
N075-N074	10/04/22	US	7921 Eileen St	VCP	8	122.00	Cracks	D	Rehabilitate (Lining)		CIP-006

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N076-N037	10/03/22	DS	7732 Davmor Ave	VCP	8	350.00	Cracks	С	Rehabilitate (Lining)		
N077-N076	10/03/22	DS	Davmor Ave	VCP	8	353.00	Cracks, Broken Pipe	D	Rehabilitate (Lining)		CIP-006
N078-N077	10/03/22	DS	7862 Davmor Ave	VCP	8	349.00	Cracks	С	Rehabilitate (Lining)		
N079-N078	10/03/22	DS	7921 Davmor Ave	VCP	8	354.00	Cracks	D	Rehabilitate (Lining)		CIP-006
N080-N079	10/03/22	US	7921 Davmor Ave	VCP	8	166.00	Cracks	С	Rehabilitate (Lining)		
N081-N044	10/03/22	US	Senegal Ct	VCP	8	48.00	N/A	Α	No Action		
N082-N045	10/17/22	US	Raffia	VCP	8	100.00	N/A	А	No Action		
N083-N046	10/03/22	US	Belize Ct	VCP	8	46.00	N/A	А	No Action		
N084-N047	10/17/22	US	Madeira	VCP	8	101.00	N/A	А	No Action		
N085-N048	10/03/22	US	Mandanao Ct	VCP	8	45.00	N/A	А	No Action		
N086-N049	10/11/22	US	Juniper Ct	VCP	8	45.00	N/A	А	No Action		
N087-N057	10/04/22	DS	Mario Ln	VCP	8	226.00	Cracks	С	Rehabilitate (Lining)		
N088-N058	10/11/22	US	Ale Ln	VCP	8	123.00	Cracks	С	Point repair	2 point repairs	
N089A-N089	10/11/22	DS	Cedar & Katella	VCP	8	133.00	N/A	А	No Action		
N089-I022	10/11/22	DS	11050 Cedar	VCP	8	361.00	Cracks	С	Rehabilitate (Lining)		
N090-N089A	10/11/22	DS	Cedar & Katella	VCP	8	158.00	N/A	А	No Action		
N091-N090	10/11/22	US	Cedar & Katella	VCP	8	175.70	Broken pipe	E	Point repair	2 point repairs	CIP-001
N095-N096	10/05/22	DS	11186 Santa Maria St	VCP	12	307.00	Grease	С	Clean		
N098-N010	04/08/24	US	Western Ave	VCP	8	164.72	Deposits	С	Rehabilitate (Lining)		
N099-N008	04/09/24	US	Western Ave	VCP	8	45.19	N/A	А	No Action		
0001-0032	01/11/24	DS	11100 Beach Blvd	VCP	8	349.00	Flow Capacity	С	No Action		
O002-O001	01/11/24	DS	Beach Blvd	VCP	8	351.00	Flow Capacity	С	Clean		
O003-O002	01/11/24	DS	Beach Blvd	VCP	8	352.00	Cracks	D	Rehabilitate (Lining)		CIP-006
O004-O003	01/11/24	DS	11250 Beach Blvd	VCP	8	117.00	Flow Capacity	С	Point repair		
O005-O004	08/24/22	DS	Beach Blvd	VCP	8	234.00	Grease, Flow Capacity	С	Clean		
O006-O005	08/24/22	DS	Beach Blvd	VCP	8	312.00	Debris	В	Clean		
O007-O006	08/24/22	DS	11420 Beach Blvd	VCP/PVC	8	200.00	Joint Offset	С	Point repair		
O008-O007	08/24/22	DS	Beach Blvd	VCP	8	201.00	Roots	В	Root Treatment		
0012-0133	08/26/22	DS	Plaza Way	PVC	8	135.00	N/A	А	No Action		
0013-0012	08/26/22	DS	Plaza Way	VCP	8	122.00	Roots	D	Rehabilitate (Lining)		CIP-006
0014-0013	08/26/22	DS	11357 Jane Ln	VCP	8	19.00	Grease	С	Clean		
O015A-O015	08/26/22	DS	Easement	VCP	8	96.00	Grease	В	Clean		
0015-0014	08/26/22	DS	Plaza Way	VCP	8	88.00	Cracks	С	Rehabilitate (Lining)		
O016A-O015A	08/26/22	DS	Easement	VCP	8	153.00	Joint Offset	А	No Action		
O016-O016A	08/26/22	DS	Jane Way	VCP	8	20.00	Grease	В	Clean		
0017-0031	08/31/22	DS	8151 Jane Ln	VCP	8	274.00	Grease	В	Clean		

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O018-O017	08/31/22	US	8150 Jane Ln	VCP	8	91.00	Grease	С	Clean		
O019-O018	04/09/24	US	8130 Orangewood Ave	VCP	8	157.81	Cracks	С	Point repair		
O020-O018	04/09/24	US	Orangewood Ave	VCP	8	309.11	Broken pipe	D	Point repair	2 point repairs	CIP-005
O021-O016	08/30/22	DS	11328 Jane Way	VCP	8	172.00	Grease	В	Clean		
0022-0021	08/31/22	DS	11301 Jane Way	VCP	8	212.00	Grease	В	Clean		
0023-0022	08/31/22	DS	11300 Pickens Ln	VCP	8	257.00	Roots	С	Rehabilitate (Lining)		
0024-0023	08/30/22	DS	11329 Pine Tree Ln	VCP	8	205.00	Grease	В	Clean		
0025-0024	08/30/22	DS	Pine Tree Ln	VCP	8	268.00	Grease	В	Clean		
0026-0025	08/30/22	DS	Pine Tree Ln	VCP	8	224.00	Grease	В	Clean		
O027-O026	08/30/22	DS	11455 Pine Tree Ln	VCP	8	225.00	Grease	В	Clean		
0028-0023	08/30/22	DS	11272 Pine Tree Ln	VCP	8	21.70	Roots	D	Rehabilitate (Lining)		CIP-006
0028-0023	08/30/22	US	11272 Pine Tree Ln	VCP	8	92.00	Roots	D	Rehabilitate (Lining)		CIP-006
0029-0013	08/29/22	DS	11420 Court St	VCP	8	279.00	Roots	С	Clean		
O030A-O029	08/29/22	DS	Court St	VCP	8	113.00	Cracks	С	Point repair		
O030-O030A	08/29/22	US	Court St	VCP	8	137.00	Grease	В	Clean		
0031-0016	08/31/22	DS	11421 Jane Ln	VCP	8	268.00	Grease	С	Clean		
O032-J013	01/11/24	DS	11152 Beach Blvd	VCP	8	343.00	Sag	D	Replace		CIP-006
O133-O134A	11/23/22	DS	Ospizio	PVC	8	110.00	Grease, Flow Capacity	С	Clean		
O134A-O134	11/23/22	DS	Ospizio	PVC	8	159.00	N/A	А	No Action		
0134-0136	11/23/22	DS	Ospizio	PVC	8	159.00	N/A	А	No Action		
O136-O138	11/23/22	DS	Monaco	PVC	8	64.00	N/A	А	No Action		
O137-O136	11/23/22	US	Monaco	PVC-lined	8	129.00	Sag	С	Clean		
O138-O009	11/23/22	DS	Monaco	PVC	8	77.00	Flow Capacity	D	Clean and CCTV		
O139A-O138	11/23/22	DS	Monaco	PVC	8	84.00	N/A	А	No Action		
O139-O139A	11/23/22	US	Monaco	PVC-lined	6	60.00	N/A	А	No Action		
O140-O139A	11/23/22	DS	Antonio	PVC	8	157.00	N/A	А	No Action		
O141-O140	11/23/22	US	Picasso	PVC-lined	6	104.00	N/A	А	No Action		
0142-0140	11/23/22	DS	Antonio	PVC	8	165.00	N/A	А	No Action		
0143-0142	11/23/22	US	Torino	PVC-lined	6	66.00	N/A	А	No Action		
0144-0142	11/23/22	US	Torino	PVC-lined	6	109.00	Sag	С	Clean		
OC03-V001	04/11/24	DS	Lampson Ave	VCP	21	11.52	N/A	А	No Action		
R002-R001	09/22/22	DS	11951 Santa Rosalia St	VCP	8	196.00	Grease	С	Clean		
R003-R002	09/22/22	DS	11871 Santa Rosalia St	VCP	8	360.00	Grease	С	Clean		
R004-R003	09/22/22	DS	Santa Rosalia St	VCP	8	360.00	Cracks	С	Rehabilitate (Lining)		
R005-R004	09/22/22	DS	Santa Rosalia St	VCP	8	360.00	Cracks	С	Rehabilitate (Lining)		
R006-R005	09/22/22	US	7681 Santa Catalina Ave	VCP	8	70.00	N/A	А	No Action		

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R007-R006	09/26/22	DS	Santa Catalina Ave	VCP	8	349.00	N/A	А	No Action		
R008-R085	09/26/22	DS	Santa Catalina Ave	VCP	8	349.00	N/A	А	No Action		
R009-R008	09/26/22	DS	Santa Catalina Ave	VCP	8	352.00	N/A	А	No Action		
R010-R009	09/26/22	US	11731 Santa Paula Ave	VCP	8	64.00	N/A	А	No Action		
R012-R011	04/10/24	DS	7722 Chapman Ave	VCP	15	391.87	Sag	D	Replace		CIP-006
R013-R012	04/10/24	DS	Chapman Ave	VCP	15	391.57	Infiltration	D	Rehabilitate (Lining)		CIP-006
R014-R013	04/10/24	DS	Chapman Ave	VCP	15	392.57	Infiltration	D	Rehabilitate (Lining)		CIP-006
R015-R014	04/10/24	DS	11961 Chapman Ave	VCP	15	392.57	Cracks, Sag	С	Replace		
R016-S001	04/09/24	US	Chapman Ave	VCP-lined	8	341.17	Sag	С	Replace		
R017-R002	09/16/22	DS	7722 Santa Gertrudes Ave	VCP	8	290.00	Joint Offset	В	No Action		
R018-R017	09/16/22	DS	Santa Gertrudes Ave	VCP	8	279.90	Broken pipe	D	Point repair		CIP-005
R019-R018	09/16/22	DS	Santa Gertrudes Ave	VCP	8	352.00	Roots	С	Rehabilitate (Lining)		
R020-R019	09/15/22	DS	Santa Gertrudes Ave	VCP	8	296.00	Grease	В	Clean		
R021-R017	09/19/22	DS	Santa Maria St	VCP	8	350.00	Roots	С	Rehabilitate (Lining)		
R022-R021	09/19/22	DS	Santa Maria St	VCP	8	347.00	Roots	С	Rehabilitate (Lining)		
R023-R022	09/19/22	DS	Santa Maria St	VCP	8	342.00	Roots	С	Rehabilitate (Lining)		
R024-R018	09/16/22	DS	Santa Cruz St	VCP	8	258.00	Grease	С	Clean		
R025-R024	09/16/22	DS	11841 Santa Cruz St	VCP	8	269.00	Roots	В	Root Treatment		
R026-R025	09/16/22	DS	11801 Santa Cruz St	VCP	8	279.00	Grease	С	Clean		
R027-R026	09/16/22	DS	Santa Cruz St	VCP	8	278.00	Roots	С	Rehabilitate (Lining)		
R028-R027	09/26/22	DS	7822 Santa Catalina Ave	VCP	8	275.00	Grease	В	Clean		
R029-R028	09/26/22	DS	7882 Santa Catalina Ave	VCP	8	271.00	Roots	В	Root Treatment		
R030-R029	09/26/22	DS	Santa Catalina Ave	VCP	8	275.00	Roots	В	Root Treatment		
R031-R024	09/22/22	DS	7831 Santa Rita Ave	VCP	8	299.00	Grease	С	Clean		
R032-R031	09/22/22	DS	Santa Rita Ave	VCP	8	304.00	Grease	С	Clean		
R033-R032	09/22/22	DS	7921 Santa Rita Ave	VCP	8	243.00	Grease	С	Clean		
R034-R033	09/22/22	DS	7920 Santa Rita Ave	VCP	8	49.00	N/A	А	No Action		
R035-R034	09/22/22	DS	11940 Santa Paula St	VCP	8	281.00	Cracks	В	No Action		
R036-R035	09/26/22	US	11790 Santa Paula Ave	VCP	8	279.00	N/A	А	No Action		
R037-R036	09/26/22	US	11750 Santa Paula Ave	VCP	8	284.00	Grease	С	Clean		
R038-R025	09/19/22	DS	Santa Monica Ave	VCP	8	272.00	Roots	С	Rehabilitate (Lining)		
R039-R038	09/19/22	DS	Santa Monica Ave	VCP	8	275.00	Roots	В	Root Treatment		
R040-R039	09/19/22	DS	Santa Monica Ave	VCP	8	271.00	N/A	А	No Action		
R041-R026	09/19/22	DS	7822 Santa Barbara Ave	VCP	8	273.00	Roots	С	Clean		
R042-R041	09/19/22	DS	7882 Santa Barbara Ave	VCP	8	274.00	Roots	С	Rehabilitate (Lining)		
R043-R042	09/19/22	DS	Santa Barbara Ave	VCP	8	276.00	Grease	В	Clean		

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R044-N038	09/28/22	DS	11541 Santa Rosalia St	VCP	10	243.00	Joint Offset	В	No Action		
R045-R044	09/28/22	DS	11591 Santa Rosalia St	VCP	10	240.00	Cracks	В	No Action		
R046-R045	09/28/22	DS	11631 Santa Rosalia St	VCP	10	268.00	Cracks	В	No Action		
R047-R046	09/28/22	US	11641 Santa Rosalia St	VCP	10	62.00	N/A	А	No Action		
R048-R047	09/28/22	US	11691 Santa Rosalia St	VCP	10	233.00	Grease	В	Clean		
R049-R048	09/28/22	US	Santa Rosalia St	VCP	10	52.00	N/A	А	No Action		
R050-R049	09/28/22	US	Santa Rosalia St	VCP	10	218.00	Roots, Broken Pipe	D	Rehabilitate (Lining)		CIP-006
R051-R045	09/29/22	DS	7722 Lessue Ave	VCP	8	316.00	Cracks	В	No Action		
R052-R051	09/29/22	DS	Lessue Ave	VCP	8	310.00	Roots	С	Rehabilitate (Lining)		
R053-R052	09/29/22	DS	Lessue Ave	VCP	8	309.00	Roots	С	Rehabilitate (Lining)		
R054-R053	09/29/22	DS	7902 Lessue Ave	VCP	8	321.00	Cracks	D	Rehabilitate (Lining)		CIP-006
R055-R054	09/29/22	US	11581 Stanton Ave	VCP	8	327.00	Broken pipe	E	Point repair		CIP-001
R056-R055	09/30/22	DS	11581 Stanton Ave	VCP	8	273.00	Roots, Cracks, Broken Pipe	D	Rehabilitate (Lining)		CIP-006
R057-R051	09/29/22	DS	Santa Cruz St	VCP	8	201.00	Cracks	С	Rehabilitate (Lining)		
R058-R052	09/29/22	US	11556 Santa Cruz	VCP	8	201.00	Grease	В	Clean		
R059-R053	09/29/22	DS	Ale Ln	VCP	8	200.00	Roots	В	Root Treatment		
R060-R054	09/29/22	DS	Lenmar St	VCP	8	289.00	Cracks	D	Rehabilitate (Lining)		CIP-006
R061-R083	09/28/22	US	Hopi Rd	VCP	8	350.00	Roots	С	Rehabilitate (Lining)		
R062-R061	09/28/22	US	Hopi Rd	VCP	8	334.00	N/A	А	No Action		
R063-R087	11/01/22	DS	Hopi Rd	VCP	8	181.00	Roots	С	Rehabilitate (Lining)		
R064-R084	11/01/22	DS	Hopi Rd	VCP	8	353.00	Roots	С	Rehabilitate (Lining)		
R065-R064	11/01/22	DS	Hopi Rd	VCP	8	340.00	Joint Offset	С	Point repair		
R066-R086	11/01/22	US	Hopi Rd	VCP	8	179.00	Grease	С	Clean		
R067-R048	10/28/22	DS	Yorkshire Ave	VCP	8	349.00	Joint Offset	D	Point repair		CIP-005
R068-R067	10/28/22	DS	Yorkshire Ave	VCP	8	354.00	Joint Offset	D	Point repair		CIP-005
R069-R068	10/28/22	US	Yorkshire Ave	VCP	8	354.00	Joint Offset	С	Point repair		
R070-R069	10/31/22	DS	Yorkshire Ave	VCP	8	354.00	Sag	С	Clean		
R071-R049	10/26/22	DS	Yorkshire Ave	VCP	8	353.00	Roots	С	Rehabilitate (Lining)		
R072-R071	10/26/22	DS	7792 Yorkshire Ave	VCP	8	353.00	Joint Offset	С	Point repair		
R073-R072	10/26/22	US	Yorkshire Ave	VCP	8	276.00	Roots	D	Rehabilitate (Lining)		CIP-006
R073-R072	10/26/22	DS	Yorkshire Ave	VCP	8	75.00	Roots	D	Rehabilitate (Lining)		CIP-006
R074-R073	10/26/22	DS	Yorkshire Ave	VCP	8	356.00	Roots	С	Rehabilitate (Lining)		
R076-R075	02/27/24	DS	Western Ave	VCP	8	39.98	N/A	А	No Action		
R077-R076	02/27/24	US	Western Ave	VCP	8	432.85	Sag	В	No Action		
R078-R077	02/26/24	DS	Seaboard Cir	VCP	8	281.95	Broken pipe	D	Point repair		CIP-005
R079-R078	02/26/24	US	11631 Seaboard Cir	VCP	8	195.58	N/A	А	No Action		

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R080-R076	02/27/24	US	Western Ave	VCP	8	229.75	Grease	В	Clean		
R081-R080	02/27/24	DS	Seaboard Cir	VCP	8	281.85	Broken pipe	С	Point repair		
R082-R081	02/27/24	US	11661 Seaboard Cir	VCP	8	345.08	Grease	С	Clean		
R083-R046	09/28/22	US	Hopi Rd	VCP	8	320.00	N/A	А	No Action		
R084-R047	11/04/22	US	Hopi Rd	VCP	8	351.10	Roots	С	Rehabilitate (Lining)		
R085-R007	09/26/22	DS	Santa Catalina Ave	VCP	8	348.00	Cracks	В	No Action		
R086-R065	11/01/22	US	Hopi Rd	VCP	8	339.00	Sag	С	Clean		
R087-R062	09/28/22	US	7911 Hopi Rd	VCP	8	335.00	Roots	В	Root Treatment		
R088-R074	10/26/22	US	Yorkshire Ave	VCP	8	154.00	Sag	С	Clean		
R089-R070	10/31/22	US	Yorkshire Ave	VCP	8	152.00	Grease	С	Clean		
S001-W015	01/22/24	US	12051 Beach Blvd	VCP	10	287.00	Sag	В	No Action		
S002-R015	04/10/24	DS	Chapman Ave	VCP	15	225.94	Sag	D	Replace		CIP-006
S003A-S003	04/09/24	DS	Chapman Ave	VCP	18	271.53	Flow Capacity	С	No Action		
S003-S002	04/10/24	DS	Chapman Ave	VCP/PVC	18	229.35	Flow Capacity	С	No Action		
S004-S003A	04/09/24	DS	Chapman Ave	VCP	18	269.93	N/A	А	No Action		
S012-S002	01/22/24	DS	Beach Blvd	VCP	10	336.00	Cracks, Flow Capacity	E	Clean and CCTV		
S013-S012	01/22/24	DS	11850 Beach Blvd	VCP	10	334.00	Cracks	В	No Action	2 point repairs	
S014-S013	01/12/24	DS	Beach Blvd	VCP	10	320.00	Cracks	D	Rehabilitate (Lining)		CIP-006
S015-S014	01/12/24	DS	11752 Beach Blvd	VCP	10	334.00	Cracks	D	Rehabilitate (Lining)		CIP-006
S016-S015	01/12/24	DS	11702 Beach Blvd	VCP	10	325.00	Cracks	С	Rehabilitate (Lining)		
S017-S016	01/12/24	US	Beach Blvd	VCP	8	309.00	Cracks, Sag	Е	Replace		CIP-003
S019-S018	09/02/22	DS	Fillmore St	VCP	8	117.00	Grease, Flow Capacity	С	Clean		
S020-S019	09/02/22	DS	8031 Fillmore Dr	VCP	8	318.00	Grease	С	Clean		
S021-S812	08/26/22	DS	Court Ln	VCP	8	335.00	Roots	С	Rehabilitate (Lining)		
S022-S021	08/26/22	DS	Court Ln	VCP	8	322.00	Roots	С	Rehabilitate (Lining)		
S023-S022	08/26/22	DS	8042 Hynes St	VCP	8	321.00	Roots	В	Root Treatment		
S024-S023	08/26/22	US	8042 Hynes St	VCP	8	184.00	Debris	Е	Clean and CCTV		
S025-S022	08/26/22	DS	Hynes Rd	VCP	8	327.00	Roots	С	Clean		
S026-S025	08/26/22	DS	8192 Hynes Rd	VCP	8	279.00	N/A	А	No Action		
S027-S030	08/26/22	DS	Johnston Rd	VCP	8	289.00	N/A	А	No Action		
S029-S014	08/29/22	DS	8080 Beaver Pl	VCP	8	290.00	Grease	В	Clean		
S030-S021	08/26/22	DS	Johnston Rd	VCP	8	225.10	Cracks	С	Rehabilitate (Lining)		
S811-S016	08/29/22	DS	La Monte Rd	VCP	8	318.00	Roots	В	Root Treatment		
S812-S811	08/29/22	DS	La Monte Rd	VCP	8	319.00	Grease	С	Clean		
S813-S812	08/29/22	DS	La Monte Rd	VCP	8	340.00	Roots	С	Rehabilitate (Lining)		
S814-S813	08/29/22	US	La Monte Rd	VCP	8	304.00	Roots	С	Clean		

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S815-S814	08/29/22	US	8222 La Monte Rd	VCP	8	17.00	N/A	А	No Action		
S817-S812	08/29/22	DS	8101 Crager Ln	VCP	8	326.00	N/A	А	No Action		
S818-S817	08/29/22	DS	Crager Ln	VCP	8	250.00	Roots	С	Rehabilitate (Lining)		
S819-S818	08/29/22	DS	Crager Ln	VCP	8	22.00	Grease	В	Clean		
S820-S817	08/29/22	DS	Crager Ln	VCP	8	332.00	Broken pipe	D	Point repair		CIP-005
V002-OC03	04/11/24	DS	Lampson Ave	VCP	8	34.77	Infiltration	D	Rehabilitate (Lining)		CIP-006
V003-V002	09/09/22	DS	Santa Rosalia St	VCP	8	6.00	N/A	А	No Action		
V004-V002	09/09/22	DS	Santa Rosalia St	VCP	8	239.00	Joint Offset	В	No Action		
V004-V003	09/09/22	DS	Santa Rosalia St	VCP	8	227.00	Joint Offset	С	Point repair		
V005-V004	09/09/22	DS	Santa Rosalia St	VCP-lined	8	379.00	N/A	А	No Action		
V006-V005	09/07/22	DS	Santa Rosalia St	VCP-lined	8	375.00	N/A	А	No Action		
V007-V006	09/07/22	DS	12221 Santa Rosalia St	VCP	8	276.00	Cracks	С	Rehabilitate (Lining)		
V008-V007	09/07/22	DS	Santa Rosalia St	VCP	8	271.00	Cracks	С	Rehabilitate (Lining)		
V009-V008	09/07/22	DS	12131 Santa Rosalia St	VCP	8	270.00	Cracks	С	Rehabilitate (Lining)		
V010-V009	09/07/22	DS	Santa Rosalia St	VCP	8	267.00	Cracks	С	Rehabilitate (Lining)		
V011-V010	09/07/22	DS	Santa Rosalia St	VCP	8	243.00	Cracks	С	Rehabilitate (Lining)		
V012-V004	09/02/22	DS	12442 Georgian St	VCP	8	201.00	Cracks	С	Rehabilitate (Lining)		
V013-V012	09/02/22	DS	12420 Georgian St	VCP	8	204.00	Cracks	С	Rehabilitate (Lining)		
V014-V013	09/02/22	DS	12372 Georgian St	VCP	8	378.00	Cracks	С	Rehabilitate (Lining)		
V015-V014	09/02/22	DS	12336 Georgian St	VCP	8	347.00	Cracks	С	Rehabilitate (Lining)		
V016-V015	09/02/22	DS	12302 Georgian St	VCP	8	231.00	Cracks	С	Rehabilitate (Lining)		
V017-V016	09/02/22	DS	Georgian St	VCP	8	237.00	Cracks	С	Rehabilitate (Lining)		
V018-V006	09/09/22	DS	7732 Devonwood Ave	VCP	8	274.00	Cracks	С	Rehabilitate (Lining)		
V019-V018	09/09/22	DS	7772 Devonwood Ave	VCP	8	274.00	Cracks	С	Rehabilitate (Lining)		
V020-V019	09/09/22	DS	Devonwood Ave	VCP	8	289.00	Cracks	С	Rehabilitate (Lining)		
V021-V020	09/07/22	US	Fieldgate St	VCP	8	107.00	Cracks	В	No Action		
V022-V007	09/12/22	DS	7752 Bently Ave	VCP	8	390.00	Cracks, Broken Pipe	D	Rehabilitate (Lining)		CIP-006
V023-V022	09/12/22	DS	7822 Bently Ave	VCP	8	391.00	Cracks	В	No Action		
V024-V009	09/07/22	DS	Laurelton Ave	VCP-lined	8	330.00	Grease	С	Clean		
V025-V010	09/07/22	US	Amy Ave	VCP	8	191.00	Debris, Grease	E	Clean and CCTV		
V027-OC07	04/10/24	US	Lampson Ave	VCP-lined	8	223.64	N/A	А	No Action		
V029-OC04	04/11/24	DS	Lampson Ave	VCP	8	14.43	Deposits	В	No Action		
V030-V029	04/11/24	DS	Lampson Ave	VCP	8	175.24	N/A	А	No Action		
V031-V030	04/11/24	DS	Lampson Ave	VCP	8	288.77	Cracks	В	No Action		
V032-V031	04/11/24	DS	Lampson Ave	VCP	8	515.71	Sag	С	Replace		
V033-V013	09/09/22	DS	Carla St	VCP	8	194.00	Cracks	С	Rehabilitate (Lining)		

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V034-V033	09/09/22	DS	7691 Carla St	VCP	8	200.00	Cracks	С	Rehabilitate (Lining)		
V035-V014	09/02/22	DS	7751 Marisa St	VCP	8	185.00	Cracks	С	Rehabilitate (Lining)		
V036-V020	09/07/22	DS	12242 Fieldgate St	VCP	8	277.00	Cracks	С	Rehabilitate (Lining)		
V804-V008	09/07/22	DS	7742 Belgrave Ave	VCP	8	391.00	Cracks	С	Rehabilitate (Lining)		
V812-V809	09/12/22	DS	Home Depot Park Lot	PVC	8	202.00	Grease	С	Clean		
V813-V812	09/12/22	DS	Home Depot Park Lot	PVC	8	178.00	Grease	В	Clean		
V813-V812	09/12/22	US	Home Depot Park Lot	VCP/PVC	8	88.50	Broken pipe	D	Point repair		CIP-005
W006-OC09	01/23/24	DS	12392 Beach Blvd	VCP	10	337.00	Broken pipe	С	Rehabilitate (Lining)		
W007-W006	01/23/24	DS	12362 Beach Blvd	VCP	10	331.00	Flow Capacity	С	Point repair		
W008-W007	01/23/24	DS	Beach Blvd & Catherine	VCP	10	331.00	Cracks	С	Rehabilitate (Lining)		
W010-W008	01/23/24	US	Beach Blvd & Catherine	VCP	8	6.00	Flow Capacity	С	Clean		
W011A-W011	01/23/24	DS	12232 Beach Blvd	VCP	10	30.00	Cracks	С	Rehabilitate (Lining)		
W011-W010	01/23/24	DS	12232 Beach Blvd	VCP	10	173.00	Cracks	С	Point repair	2 point repairs	
W012A-W011A	01/23/24	DS	12140 Beach Blvd	VCP	10	265.00	Cracks	С	Rehabilitate (Lining)		
W012-W012A	01/23/24	DS	Beach Blvd	VCP	10	33.60	N/A	А	No Action		471.60
W013A-W013	09/02/22	DS	Park Plaza	VCP	8	339.00	Grease	С	Clean		
W013-W012	01/23/24	DS	Beach Blvd	VCP	10	246.00	Joint Offset	С	Replace		
W014-W013	01/23/24	DS	12100 Beach Blvd	VCP	10	84.00	Cracks	В	No Action		
W015-W014	01/22/24	DS	12051 Beach Blvd	VCP	10	335.00	Cracks	D	Rehabilitate (Lining)		CIP-006
W016-W008	09/15/22	DS	8071 Catherine Ave	VCP	8	313.00	Cracks	С	Rehabilitate (Lining)		
W017-W016	09/15/22	DS	8101 Catherine Ave	VCP	8	191.00	Joint Offset	С	Point repair		
W018A-W017	09/02/22	DS	Catherine Ave	VCP	8	47.00	Grease	В	Clean		
W018-W018A	09/02/22	DS	Catherine Ave	VCP	8	89.00	Cracks	В	No Action		
W019-W018	09/16/22	DS	Easement	VCP	8	118.00	Debris, Flow Capacity	E	Clean and CCTV		
W020-W019	09/16/22	DS	12364 San Marcos Dr	VCP	8	282.00	Broken pipe	E	Point repair		CIP-001
W021-W020	09/16/22	DS	12400 San Marcos Dr	VCP	8	316.00	Grease	С	Clean		
W022-W021	09/02/22	DS	8150 Carmel Dr	VCP	8	176.00	Joint Offset	В	No Action		
W023-W019	09/12/22	DS	12311 Westcliff Dr	VCP	8	293.00	Joint Offset	С	Point repair		
W024-W023	09/12/22	DS	Westcliff Dr	VCP	8	267.00	Joint Offset	С	Point repair		
W025-W024	09/12/22	DS	Westcliff Dr	VCP	8	297.00	Grease	В	Clean		
W026-W024	09/02/22	DS	Laguna Ct	VCP-lined	8	132.00	Joint Offset	С	Point repair		
W029-W028	08/31/22	DS	Shadow Ln	VCP	8	190.00	Grease	С	Clean		
W030-W029	08/30/22	DS	Briarwood St	VCP	8	78.00	N/A	А	No Action		
W031-W030	09/01/22	DS	8180 Capistrano Dr	VCP	8	277.00	Cracks	В	No Action	2 point repairs	
W032-W031	09/01/22	DS	8180 Capistrano Dr	VCP	8	330.00	Cracks	С	Point repair		
W033-W032	09/01/22	DS	12275 Malibu Dr	VCP	8	235.00	Grease	С	Clean		

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W034-W033	09/01/22	DS	12279 Westcliff Dr	VCP	8	332.00	Grease	В	Clean		
W035-W034	09/01/22	US	12279 Westcliff Dr	VCP	8	66.70	Cracks	С	Point repair		
W036-W034	09/01/22	US	12279 Westcliff Dr	VCP	8	81.00	N/A	А	No Action		
W037-W029	08/30/22	DS	Briarwood St	VCP	8	143.00	Cracks	В	No Action		
W038-W037	08/30/22	DS	Briarwood St	VCP	8	274.00	Grease	В	Clean		
W039-W038	08/30/22	DS	Briarwood St	VCP	8	276.00	Grease	С	Clean		
W040-W039	08/30/22	DS	Briarwood St	VCP	8	372.00	Grease	С	Clean		
W041-W040	08/30/22	DS	Briarwood St	VCP	8	246.00	Broken pipe	D	Point repair		CIP-005
W042-W041	08/30/22	DS	8341 Briarwood St	VCP	8	301.00	N/A	А	No Action		
W043-W042	08/30/22	US	8341 Briarwood St	VCP	8	103.00	Debris	В	Clean		
W044-W039	09/01/22	DS	Autumn Ln	VCP	8	186.00	Grease	В	Clean		
W045-W040	09/01/22	DS	Brittany Ln	VCP	8	145.00	Grease	В	Clean		
W046-W045	09/01/22	DS	Brittany Ln	VCP	8	240.00	Cracks	С	Point repair		
W047-W037	08/31/22	DS	Winterwood Ave	VCP	8	174.00	Broken pipe	D	Point repair		CIP-005
W048-W047	08/31/22	DS	8231 Winterwood Ave	VCP	8	346.00	Grease	С	Clean		
W049-W048	08/31/22	DS	8291 Winterwood Ave	VCP	8	347.00	Grease	С	Clean		
W050-W049	08/31/22	DS	Winterwood Ave	VCP	8	201.00	Grease	С	Clean		
W051-W050	08/31/22	DS	Leafwood St	VCP	8	297.00	Grease	С	Clean		
W052-W051	08/31/22	US	Leafwood St	VCP	8	295.00	Grease	С	Clean		
W053-W052	08/31/22	US	12100 Leafwood St	VCP	8	80.00	N/A	А	No Action		
W054-W049	09/01/22	DS	12210 Arrowhead St	VCP	8	133.00	Joint Offset	В	No Action		
W055-W054	09/01/22	DS	12270 Arrowhead St	VCP	8	351.00	Roots	В	Root Treatment		
W056-W055	09/01/22	DS	12360 Arrowhead St	VCP	8	302.00	Grease	С	Clean		
W056-W057	09/01/22	DS	12360 Arrowhead St	VCP	8	301.00	Grease, Flow Capacity	В	Clean		
Y002-Y022	09/09/22	DS	12661 Hoover St	VCP	8	201.00	N/A	А	No Action		
Y003-Y002	09/09/22	DS	12650 Hoover St	VCP	8	125.00	N/A	А	No Action		
Y004-Y003	09/09/22	DS	12650 Hoover St	VCP	8	200.00	Joint Offset	С	Point repair		
Y006-Y005	09/15/22	DS	Village Center Dr	VCP	8	339.00	Cracks	В	No Action		
Y007-Y006	09/15/22	DS	Village Center Dr	VCP	8	149.00	Grease	С	Clean		
Y008-Y007	09/15/22	DS	Village Center Dr	VCP	8	189.00	Grease	С	Clean		
Y009-Y008	09/15/22	DS	Village Center Dr	VCP	8	228.00	Roots	С	Point repair		
Y010-Y009	09/15/22	DS	Village Center Dr	VCP	8	101.00	Roots	В	Root Treatment		
Y011-Y010	09/15/22	DS	Village Center Dr	VCP	8	205.00	Grease	В	Clean		
Y012-Y011	09/12/22	DS	Village Center Dr	VCP	8	0.00	Flow Capacity	E	Clean and CCTV		
Y013-Y810	03/26/24	DS	12835 Beach Blvd	VCP	8	360.01	Broken pipe	D	Point repair		CIP-005
Y014-Y013	03/26/24	US	12803 Beach Blvd	VCP/PVC	8	287.37	N/A	А	No Action		

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Y015-V030	09/12/22	DS	12541 Camus Ln	VCP	8	207.00	Grease	В	Clean		
Y016-Y015	09/12/22	US	12751 Camus Ln	VCP	8	220.00	Cracks	В	No Action		
Y017-V031	09/12/22	DS	12542 Orrway Dr	VCP	8	213.00	Joint Offset	С	Point repair		
Y018-Y017	09/12/22	DS	12572 Orrway Dr	VCP	8	211.00	Grease	В	Clean		
Y019-V032	11/04/22	DS	Easement	VCP	8	417.40	Grease, Flow Capacity	E	Clean and CCTV		
Y020-V029	04/11/24	US	Lampson Ave	VCP	8	19.94	Roots	В	Root Treatment		
Y021-Y019	11/04/22	US	Easement	VCP	8	11.00	Grease	С	Clean		
Y022-Y001	09/09/22	DS	12710 Hoover St	VCP	8	81.00	N/A	А	No Action		
Y024-Y014	04/12/24	DS	12775 Beach Blvd	PVC	6	154.30	N/A	А	No Action		
Y024-Y014	04/12/24	US	12775 Beach Blvd	PVC	6	29.26	N/A	А	No Action		
Y024-Y014	04/12/24	DS	12775 Beach Blvd	PVC	6	41.48	N/A	А	No Action		
Y024-Y014	04/12/24	DS	12775 Beach Blvd	PVC	6	16.43	N/A	А	No Action		
Y024-Y014	04/12/24	DS	12775 Beach Blvd	PVC	6	58.52	N/A	А	No Action		
Y810-Y808	09/16/22	DS	Easement	VCP	8	289.00	Grease	В	Clean		
Z001-Z831	09/14/22	DS	Sycamore St	VCP	8	38.00	Joint Offset, Flow Capacity	D	Clean and CCTV		
Z002-Z001	09/14/22	DS	Sycamore St	VCP-lined	8	307.00	Grease, Flow Capacity	С	Clean		
Z003-Z002	09/14/22	DS	12910 Sycamore Ave	VCP	8	56.00	Grease	С	Clean		
Z004-Z003	09/14/22	DS	Sycamore St	VCP-lined	8	252.00	Grease	С	Clean		
Z005-Z004	09/14/22	DS	Sycamore St	VCP	8	286.00	Cracks	В	No Action		
Z006-Z005	09/14/22	DS	Sycamore St	VCP-lined	8	279.90	Grease	С	Clean		
Z007-Z029	09/14/22	DS	Acacia Ave	PVC	8	467.00	N/A	А	No Action		
Z008-Z007	09/13/22	US	Court St	PVC	8	323.00	Grease	В	Clean		
Z008-Z007	09/13/22	DS	Court St	VCP	8	34.40	Grease	В	Clean		
Z009-Z008	09/13/22	US	Court St	VCP	8	224.00	N/A	А	No Action		
Z015-Z028	09/15/22	DS	Easement	VCP	8	149.00	N/A	А	No Action		
Z016-Z800	09/14/22	DS	Fern St	VCP-lined	8	231.00	Grease, Flow Capacity	E	Clean and CCTV		
Z017-Z016	09/14/22	DS	12871 Fern St	VCP	8	296.00	Cracks	D	Rehabilitate (Lining)		CIP-006
Z018-Z004	09/15/22	DS	8242 Acacia Ave	VCP	8	241.00	Cracks, Grease	E	Clean and CCTV		
Z019-Z018	09/14/22	DS	Fern St	VCP-lined	8	358.00	Grease	С	Clean		
Z020-Z019	09/14/22	DS	Fern St	VCP-lined	8	292.00	Grease	С	Clean		
Z021-Z022	09/15/22	DS	Easement	PVC-lined	8	222.00	N/A	Α	No Action		
Z022-Z023	09/15/22	DS	Easement	VCP-lined	8	216.00	N/A	А	No Action		
Z023-Z024	09/15/22	DS	2880-AA Beach Blvd	VCP	8	22.00	N/A	Α	No Action		
Z024-Z015	09/15/22	DS	Easement	VCP/PVC	12	145.00	N/A	Α	No Action		
Z025-Z015	04/12/24	DS	Garden Grove Blvd	PVC	6	66.43	Joint Offset, Flow Capacity	D	Replace	Upsize to 8"	CIP-006
Z026-Z025	04/12/24	US	Garden Grove Blvd	PVC	6	355.10	Sag, Flow Capacity	D	Replace	Upsize to 8"	CIP-006

Appendix 5 - Cooperative Sanitary Sewer Agreement



CITY OF GARDEN GROVE

(714) 741-5040

William J Dalton Mayor

Mark Rosen

Mayor Pro Tem Dina Nguyen Council Member

Bruce A Broadwater Council Member

Steven R Jones Council Member

October 28, 2008

CITY OF STANTON

OCT 3 0 2008

City of Stanton 7800 Katella Avenue Stanton CA 90680

OFFICE OF THE CITY MANAGER

Attention City Manager

Enclosed is an original agreement by and between the City of Garden Grove Sanitary District and the City of Stanton for the Cooperative Sanitary Sewer Agreement that was approved by the Garden Grove Sanitary District at their meeting held on October 14, 2008

Sincerely,

Kathleen Bailor Secretary

Βv

Deputy Secretary

Enc

C Finance Department Public Works



THE FOLLOWING IS AN EXCERPT OF THE MINUTES OF THE REGULAR CITY COUNCIL MEETING OF SEPTEMBER 9, 2008, WHICH ARE SCHEDULED FOR CONSIDERATION BY THE CITY COUNCIL AT THE SEPTEMBER 23, 2008 MEETING

Brenda Green City Clerk

10C AUTHORIZE EXECUTION OF COOPERATIVE SANITARY SEWER AGREEMENT BY THE CITY COUNCIL OF THE CITY OF STANTON, CALIFORNIA

A Joint Use Sanitary Sewer Agreement for maintenance and operation of Sanitary Sewer Facilities has been negotiated and agreed upon between the City of Stanton and the Garden Grove Sanitary Sewer District. The proposed action will define responsibilities for the two municipalities when addressing maintenance and operation of shared Sanitary Sewer facilities.

Motion/Second Shawver/Royce Motion carried

The City Council authorized the City Manager to execute a Joint Use Sanitary Sewer Agreement for the maintenance and operation of Sanitary Sewers with the Garden Grove Sanitary Sewer District

AGREEMENT FOR JOINT USE OF SEWERAGE FACILITIES

THIS AGREEMENT FOR JOINT USE OF SEWERAGE FACILITIES (the "Agreement") is made and entered into to be effective as of the 14tb. day of October, 200 2008 (the "Effective Date") by and between the Garden Grove Sanitary District ("District"), a subsidiary district of the City of Garden Grove, and the City of Stanton ("City"), a municipal corporation District and City are sometimes individually referred to as "Party" and collectively referred to as the "Parties"

RECITALS

WHEREAS, the District and City both own, operate, and maintain sewerage facilities within their respective jurisdictions, and

WHEREAS, it is necessary for District and City to enter into this Agreement to ensure effective operation and maintenance of sewerage facilities, protection of the public health and welfare, compliance with the Statewide Waste Discharge Requirements, and equitable cost sharing between District and City, for jointly used sewerage facilities

AGREEMENT

NOW, THEREFORE, in consideration of the mutual covenants, conditions and promises herein contained, it is hereby agreed by and between the District and the City, as follows

1 SHARED SANITARY SEWERS

(a) <u>Capacity Rights</u>

1,

City hereby grants to District, and District hereby grants to City, capacity rights, subject to the provisions of this Agreement, in those shared sanitary sewers located within the territorial jurisdictions of City and District, respectively, the locations of which are shown on Exhibit "A" and described on Exhibit "B" attached hereto. District and City agree to use the shared sewers only to transport wastewater from those areas specified on Exhibit "A" as tributary to the shared sanitary sewers. The diversion, release, or transmission of wastewater from any other area into the shared sanitary sewer facilities by either Party, without express written consent of the other Party, shall be deemed to be a breach of this Agreement. The shared sanitary sewers, or portions thereof, shall be deemed to be at capacity when the measured peak dry weather flow has a depth equal to the following percentage of the sewer diameter, as verified through flow monitoring

Size of Sewer	Percentage of Sewer Diameter
Existing Shared Sewers (All Diameters)	62%
New or Replacement Shared Sewers (≥18" in Diameter)	62%
New or Replacement Shared Sewers (<18" in Diameter)	50%

If one Party to this Agreement determines by field measurements that a portion of a shared sanitary sewer is flowing at, above or within 10% of capacity, as defined herein, that Party shall immediately notify the other Party in writing, setting forth the sewer line capacity limits, the

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measured flow, and the depth of the peak dry weather flow, and provide any other information and documentation relating to the flow supporting the determination which the notifying party possesses

Upon determination and notification that a sanitary sewer, or a portion or portions thereof, is at or exceeding capacity, both parties shall immediately cease issuance of any additional sewer connection permits and permits for increases in the number of restrooms, sinks, showers, bathtubs, or square footage in existing buildings that directly or indirectly convey wastewater to those portions of that sewer that is at or exceeding capacity. The cessation of issuance of sewer connection permits and permits for increases in the number of restrooms, sinks, showers, bathtubs, and square footage in existing buildings shall continue in force until sufficient additional sewer capacity has been constructed and been placed in operation as provided for herein

(b) Maintenance

City and District each agree to maintain the portions of the shared sanitary sewers as shown on Exhibit "A" which are located within their respective jurisdictions in good condition and in at least the same manner and at the same frequency as all other comparable sanitary sewers maintained by City or District. Costs for routine maintenance of any portion of a shared sanitary sewer shall be borne by the Party within whose territory the shared sanitary sewer is located. For purposes of this Agreement, routine maintenance shall include anything that is within the normal scope of sewer line maintenance duties of the responsible Party's employees or contractors, including, but not limited to, regular cleaning of the entire system (including more frequent cleaning at problem areas), visual and closed circuit television inspection and re-inspection, pump station maintenance, and root removal Any repair in excess of the normal scope of such duties, or which is necessitated by changes from the plan design conditions, shall be undertaken pursuant to Paragraph 1(c)

(c) Replacement or Repair of Shared Sanitary Sewers

Both parties acknowledge and agree that the shared sanitary sewers have a finite life and eventually, due to damage or deterioration, all or portions of the shared sanitary sewers may need to be repaired or replaced. When a Party determines that a portion of shared sewer within its jurisdiction is in need of repair or replacement, it shall immediately notify the other Party in writing, setting forth a description and schedule of repair or replacement and the estimated cost thereof. Unless the work is required to abate a public health or welfare problem, it shall be scheduled so that both parties can budget for the project in the next following fiscal year. Work required to abate a public health or welfare problem shall be commenced immediately. Except in the case of work required to immediately abate a public health or welfare problem, the Parties shall meet to review the plans and specifications for the repair or replacement of the shared sanitary sewer (1) upon their fifty percent (50%) completion and (11) upon their completion, but prior to the solicitation of bids for the repair or replacement work

The cost of repair or replacement of each shared sanitary sewer shall be apportioned to each Party according to flow as set forth on Exhibit "B" The total cost shall include both in-house and outside engineering, administration, and construction expenses. Prior to starting the repair or replacement work, the initiating Party shall invoice the other Party for its apportioned estimated cost share. The other Party shall promptly deposit the invoiced amount with the initiating Party. The initiating Party shall keep these monies in a segregated, interest bearing fund and use them only for the project for which they were deposited. Upon completion of the work and payment of all costs,

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the initiating Party shall submit a report setting forth all costs incurred together with either an invoice, or a refund for the difference between the actual apportioned cost and the deposit (and any related accumulated interest)

All repair and replacement work shall be done in accordance with applicable laws, ordinances, charter provisions related to public work projects, and the applicable standards and specifications of the Party within whose jurisdiction the work is being performed

If, within 30 days after notification, the notified Party disagrees with the necessity for, or disagrees with the estimated cost of, the repair or replacement, it shall so notify the other Party in writing. If the parties are unable to agree upon the need for or cost of the repair or replacement, the matter may be submitted to arbitration as set forth in Section 3, or the Parties may pursue any other remedies authorized by this Agreement.

This Subsection 1(c) shall apply to any replacement of a shared sewer line by a new shared sewer line of equal or lesser capacity. Section 2 of this Agreement shall apply to replacement of existing shared sewer lines by new sewer lines with a capacity greater than the capacity of the line being replaced and the construction of new shared sewer lines.

(d) Compliance with Law

Each Party hereby agrees to operate and maintain the shared sanitary sewers within its jurisdiction and those sanitary sewers within its jurisdiction that directly or indirectly connect to shared sanitary sewers in the other Party's jurisdiction in accordance with all applicable federal and state laws and regulations, including, but not limited to, any waste discharge requirements ("WDRs") lawfully established by the State Water Resources Control Board and/or the Santa Ana Regional Water Quality Control Board, and each Party's respective Operation and Maintenance Plan when such plan is adopted (collectively, "Applicable Laws and Regulations")

2 FUTURE SANITARY SEWERS

(a) Annual Determination of Sufficiency of Capacity in Shared Sewers

It is anticipated that future development in the tributary areas to the shared sanitary sewers may lead to a situation in which there is a need for additional capacity, as defined in Section 1, in some of the shared sanitary sewers. On or before October 1st of each year, each Party shall determine whether the shared sanitary sewers within its jurisdiction have sufficient capacity, as defined in Section 1, to provide service without limiting connections for the next calendar year.

(b) Construction of New Shared Sanitary Sewer

If a Party determines that any shared sanitary sewers within its jurisdiction will not have sufficient capacity to provide service without limiting connections for the next calendar year, then the Parties shall meet and determine within sixty (60) days the size and estimated cost of a new, larger sanitary sewer that will provide adequate capacity for ultimate planned development within the tributary areas. The Parties anticipate that such new, larger sanitary sewers will generally be designed and constructed as replacements for the then-existing shared sanitary sewers. Unless otherwise agreed by the Parties, the Party within whose jurisdiction the new sanitary sewer will be

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located shall be responsible for preparation of the plans and specifications for the new sanitary sewer. The Parties shall meet to review the plans and specifications (i) upon their fifty percent (50%) completion and (ii) upon their completion, but prior to the solicitation of bids for construction of new sanitary sewer.

The cost of the new sanitary sewer, including in-house and outside engineering, administrative, and construction, shall be apportioned between the parties in the proportions set forth on Exhibit "B"

The construction of the new line shall be scheduled to start by the mutual agreement of the parties, but in no event shall it be undertaken prior to the next July 1st so that both parties may budget for the required funds, unless earlier construction is required due to an immediate threat to public health and welfare or unless the parties mutually agree to earlier commencement of construction

Prior to commencing construction, the Party within whose jurisdiction the new sanitary sewer will be located shall invoice the other Party for its apportioned share of the estimated total cost. The other Party shall promptly deposit the invoiced amount with the initiating Party. The initiating Party shall keep these monies in a segregated, interest bearing fund and use them only for the project for which they were deposited. Upon completion of the work, and payment of all costs, the initiating Party shall submit a report setting forth all costs incurred together with either an invoice, or a refund, for the difference between the actual apportioned cost and the deposit (and any related accumulated interest)

(c) Withdraw of Tributary Areas in Lieu of Contribution to Cost of New Shared Sewer

In lieu of contributing to the cost of a new, larger shared sanitary sewer, a Party may elect to withdraw the areas within its jurisdiction tributary to the shared sanitary sewer from coverage under this Agreement and construct alternative connections of the sanitary sewerage facilities in such tributary areas, provided that the Party provides notice to the other Party of its intention to withdraw such tributary areas and construct alternative connections and/or facilities prior to the award of a contract by the other Party for design of the new shared sanitary sewer. The failure to provide such notice prior to the award of the design contract shall constitute a waiver of the right to elect to A Party that makes such an election to withdraw shall, as of eighteen (18) months following the date of the election be deemed to have relinquished all capacity rights in, and rights to discharge to both the relevant existing shared sanitary sewer, to the extent such sewer remains in existence following construction of the new larger sanitary sewer, and any new supplemental or enlarged replacement sanitary sewer constructed by the other Party The withdrawing Party shall commence construction of the alternate connections of the sanitary sewerage facilities and/or new facilities in affected tributary areas within a reasonable time after notifying the other Party of its election and, in the absence of a mutual agreement of the Parties providing otherwise, shall ensure that the alternate connections and/or facilities are constructed and in operation, and that the area served by the shared sewer no longer discharges into the shared sanitary sewer, no more than eighteen (18) months after notifying the other Party of its election. Such Party shall make a good faith effort to cooldinate construction of its alternate sanitary sewer connections and/or facilities with the other Party's construction of the new sanitary sewer

(d) Options in Event of Party's Failure to Fund Apportioned Share of New Shared Sewer

If one of the Parties does not finance or fund its apportioned share of the new sanitary sewer or for any other reason declines to participate, then, unless such Party withdraws and constructs alternate connections as provided in Section 2(c), above, the other Party, at its sole option, may take any of the following actions

- (1) Proceed to construct with its own funds a new supplemental sanitary sewer with capacity only for the tributary area or a portion thereof within its jurisdiction. If this option is exercised, then the non-participating Party shall have no capacity rights in the new supplemental sewer and, with respect to the existing shared sanitary sewer, shall immediately cease issuance of sewer connection permits and permits for additional fixtures in, and/or square footage additions to, existing buildings as provided for in Section 1(a). Such cessation of issuance of permits shall remain in effect until the non-participating Party constructs alternate sewer facilities with capacity for added flows from its tributary area or diverts the added flows to non-shared sanitary sewers. The non-participating party shall be solely responsible for all maintenance, repair, abandonment, and enforcement costs of the existing shared sanitary sewer following the construction of the supplemental sanitary sewer until it constructs alternate sewer facilities or diverts all of its flows to non-shared sanitary sewers,
- (11) Proceed to construct with its own funds a new, larger sanitary sewer with capacity for the tributary areas in the jurisdictions of both parties and recover from the non-participating Party that Party's proportionate share of all necessary and appropriate costs as determined after completion of construction, plus actual damages including interest at the rate available on funds deposited in the Local Agency Investment Fund of the State of California ("LAIF" rate), all reasonable attorneys' fees, court costs, and other reasonable costs incurred in collecting said amount from the delinquent Party, and/or
- (111) Pursue any remedy authorized in law, in equity, or by this Agreement
- (e) <u>Treatment of New Shared Sanitary Sewers and Amendment of Exhibits</u>

Upon completion of construction, new shared sanitary sewers shall be treated by the Parties in the same manner as existing shared sanitary sewers. The Parties shall, in good faith, negotiate an amendment to Exhibits A and B upon completion of each new shared sanitary sewer in order to maintain an accurate record of the shared sanitary sewers and the appropriate unit flow factors and proportionate flows

3 ARBITRATION

If the parties are unable to agree on the necessity, cost, or apportionment of cost of repair, replacement, or constitution of shared sanitary sewers, upon mutual agreement of the parties, the matter may be submitted to arbitration pursuant to California Code of Civil Procedure, Part 3, Title 9, Sections 1280 et seq

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If the parties do not mutually agree to arbitration, either Party may pursue all remedies available to it under law, including the initiation of legal proceedings to determine each Party's rights and obligations

4 ENFORCEMENT OF DISCHARGE REGULATIONS

(a) Primary Enforcement Responsibility

Each Party agrees to keep in force and effect ordinances, regulations, and/or procedures regulating discharges of materials and substances into the sanitary sewers within its jurisdiction (collectively, "Discharge Regulations"), which are required by, and comply with, all Applicable Laws and Regulations Each Party shall have primary responsibility for enforcement its own Discharge Regulations. For purposes of this Agreement, the term "enforcement" shall include monitoring, inspection, sampling, investigation of past and potential discharge violations, issuance of administrative orders and compliance schedules, recovery of administrative and civil penalties, obtaining injunctive relief to ensure compliance with applicable Discharge Regulations, and any other actions taken to ensure compliance with applicable Discharge Regulations. Nothing herein shall be construed to limit the ability of either Party to enforce its own Discharge Regulations or the terms and conditions of any sewer connection or discharge permits issued by such Party

(b) Cooperation in Enforcement

- (1) Either Party may request to participate with or accompany inspections being conducted within the areas tributary to the shared sanitary sewers that are outside of the requesting Party's jurisdiction, and the inspecting Party shall reasonably accommodate all such requests
- (11) The Parties agree to cooperate in exchanging reports, correspondence and other information relating to the discharges in the service areas within their respective jurisdictions which are tributary to the shared sanitary sewers, including data on all point sources relating to discharge quality, and information produced as a result of monitoring, inspection and enforcement. It is the intent of the parties that, except in an emergency as set forth in Section 4(b) (iii), if either Party determines that enforcement actions or additional enforcement actions are or may be needed with respect to a discharge originating within the other Party's jurisdiction, the Party so determining shall notify the other Party, and the Parties shall meet and confer in order to determine the appropriate enforcement actions to be taken and the roles of the Parties.
- (III) In the event of a bona fide emergency, any affected Party may proceed with enforcement measures it reasonably deems necessary to protect the shared sanitary sewers within its jurisdiction, but such Party shall notify the other Party of such action as soon thereafter as possible
- (iv) Either Party, upon becoming aware through its monitoring or inspection or by information received from a discharger or a third party, of any discharge originating within any area within its jurisdiction that is tributary to a shared sanitary sewer within the other Party's jurisdiction, which presents an imminent danger to the public

health, safety or welfare, or the environment, or which threatens to interfere with the operation of the other Party's sewerage system, shall immediately notify the other Party of such discharge Each Party shall also immediately inform the other Party of any discharger within such tributary areas which has been determined by such Party to be in non-compliance with the terms of its discharge permit or such Party's Discharge Regulations and of what enforcement action is proposed to be taken by such determining Party

- (c) <u>City Delegation of Secondary Enforcement Authority to District</u>
- (i) <u>Delegation of City's Enforcement Authority to District</u> City hereby delegates to District, the limited authority necessary, within the scope of this Agreement, to enforce City's Discharge Regulations and the terms and conditions of any sewer connection or discharge permits applicable in the service areas within the City's jurisdiction which are tributary to the shared sanitary sewers located within District's jurisdiction
- (n)Secondary Enforcement by District Within those portions of City's service areas that are fubutary to shared sanitary sewers located within the District's jurisdiction, if the District makes a determination that enforcement or additional enforcement is necessary in a particular instance, and if the City has not initiated the enforcement or additional enforcement, the District shall be entitled to proceed independently to pursue enforcement as it deems appropriate, provided that the District has first requested that the City respond with the appropriate enforcement and (i) the City has failed to respond within a period of time that is reasonable (based on the urgency of the circumstances) or (ii) the District determines that the type or level of enforcement taken or proposed by the City is insufficient. Except in an emergency, if the District determines to take independent actions pursuant to this paragraph, it shall first notify the City as soon as possible, but not less than twenty-four (24) hours in advance of the intended enforcement action Such notice may be given in writing or by telephone or by electronic communication or facsimile, confirmed in writing
- (d) <u>District Delegation of Secondary Enforcement Authority to City</u>
- (1) <u>Delegation of District's Enforcement Authority to City</u> District hereby delegates to City, the limited authority necessary, within the scope of this Agreement, to enforce District's Discharge Regulations and the terms and conditions of any sewer connection or discharge permits applicable in the service areas within the District's jurisdiction which are tributary to the shared sanitary sewers located within City's jurisdiction
- (11) Secondary Enforcement by City Within those portions of District's service areas that are tributary to shared sanitary sewers located within the City's jurisdiction, if the City makes a determination that enforcement or additional enforcement is necessary in a particular instance, and if the District has not initiated the enforcement or additional enforcement, the City shall be entitled to proceed independently to pursue enforcement as it deems appropriate, provided that the City has first requested that the District respond with the appropriate enforcement and (1) the District has failed to

respond within a period of time that is reasonable (based on the urgency of the circumstances) or (ii) the City determines that the type or level of enforcement taken or proposed by the District is insufficient. Except in an emergency, if the City determines to take independent actions pursuant to this paragraph, it shall first notify the District as soon as possible, but not less than twenty-four (24) hours in advance of the intended enforcement action. Such notice may be given in writing or by telephone or by electronic communication or facsimile, confirmed in writing

(e) Nothing herein is intended to relieve either Party from any responsibility it may otherwise legally have for enforcement within its own jurisdiction or make the Parties jointly responsible therefore

5 REMEDIES

In addition to any other remedies provided elsewhere in this Agreement and by law, the parties shall be entitled to specific performance. The parties acknowledge that monetary damages are not an adequate remedy in the event of a breach by either Party to this Agreement with respect to the obligations to construct or repair facilities and to discontinue wastewater discharges to affected sewers. The Parties agree that the construction, repair or discontinuance obligations shall be specifically enforceable by any court of competent jurisdiction.

6 INDEMNIFICATION

Each Party shall defend, indemnify and hold harmless the other Party and each of its officers, directors, councilmembers, employees, agents and representatives against and from any and all actions, claims, damages to persons or property, fines, fees, penalties, obligations or liabilities, including attorneys fees, that may be asserted or claimed by an person, firm, corporation political subdivision, governmental agency, or other organization, arising out of, resulting from, or in connection with (i) the negligence or willful misconduct of itself, its officers, agents, employees, or representatives in the performance of this Agreement, and (ii) any wastewater discharge from a sanitary sewer operated by, or on behalf of, itself, into a shared sanitary sewer within the jurisdiction of the other Party

7 ATTORNEY'S FEES AND COSTS

In the event that litigation becomes necessary for the resolution of any dispute arising under the terms of this agreement, the prevailing Party shall be entitled to its reasonable attorney's fees and costs from the other Party

8 TERM AND TERMINATION

The term of this Agreement shall commence upon approval and execution of this document by both parties, and shall continue for so long as is necessary to carry out the purposes of this Agreement. This Agreement may be terminated at any time by the written agreement of both parties.

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9 AMENDMENT

- (a) This Agreement may be amended from time-to-time by the written agreement of both parties
- (b) Each Party shall promptly notify the other Party of, and the Parties shall endeavor to appropriately amend Exhibits "A" and/or "B" to this Agreement within a reasonable time following, (i) the withdrawal and disconnection of tributary areas from any shared sewers, (ii) any changes in the land use designation of an area tributary to a shared sanitary sewer, (iii) changes in other unit flow factors utilized in calculating the Party's respective proportionate flows and cost sharing percentages, or (iv) construction of new shared sanitary sewers

10 NOTICES

All notices of other communications required or permitted hereunder shall be in writing, and shall conclusively be deemed to have been given upon the date it is (i) enclosed in a sealed envelope addressed to the Party to whom it is intended, and deposited in the United States Mail with adequate postage, (ii) delivered to the office of the intended Party, or (iii) sent through other commercially reasonable means, such as overnight delivery by a reputable courier company. The addresses of the respective parties for all notices shall be

CITY City of Stanton

Attn City Manager 7800 Katella Avenue Stanton, CA 90680

DISTRICT Garden Grove Sanitary District

Attn General Manager

P O Box 3070

Garden Grove, CA 92842

Any Party may, by written notice to the others, designate a different address, which shall be substituted for that specified above

11 SEVERABILITY

If any term, provision, covenant, or condition set forth in this Agreement is held by the final judgment of a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions, covenants, and conditions shall continue in full force and effect to the extent that the basic intent of the Parties as expressed herein can be accomplished. In addition, in such event the Parties shall cooperate in good faith in an effort to amend or modify this Agreement in a manner such that the purpose of the invalidated or voided provision, covenant, and condition can be accomplished to the maximum extent legally permissible, provided, however, that in no event shall either Party be required to agree to an amendment or modification of this Agreement that materially adversely impacts its rights or materially increases its obligations or risks as set forth herein

12 WAIVER

No waiver of any right or remedy by a Party with respect to any occurrence or event under this Agreement shall constitute a continuing waiver or be deemed a waiver of any right or remedy in respect to any other or subsequent occurrence or event

13 ENTIRE AGREEMENT

This Agreement (including the Exhibits hereto) constitutes the entire understanding and agreement of the Parties and supersedes all previous negotiations, discussions and agreements between the Parties relative to the joint use of sanitary sewers

14 COUNTERPARTS

This Agreement may be executed in counterparts, each of which shall be deemed an original and all of which shall constitute but one and the same instrument

15 RECITALS

The Recitals above are hereby incorporated into this section as though fully set forth herein and each Party acknowledges and agrees that such Party is bound, for purposes of this Agreement, by the same

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized officers as of the date first set forth above

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"DISTRICT"

GARDEN GROVE SANITARY DISTRICT

ATTEST

By Roard Secretary

APPROVED AS TO FORM

District Counsel

"CITY"

CITY OF STAN

ATTEST

Cyty Cler

City Clerk

APPROVED AS TO FORM

City Attorney

By City Manage

EXHIBIT "A"

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MAP OF SHARED SANITARY SEWERS AND TRIBUTARY AREAS

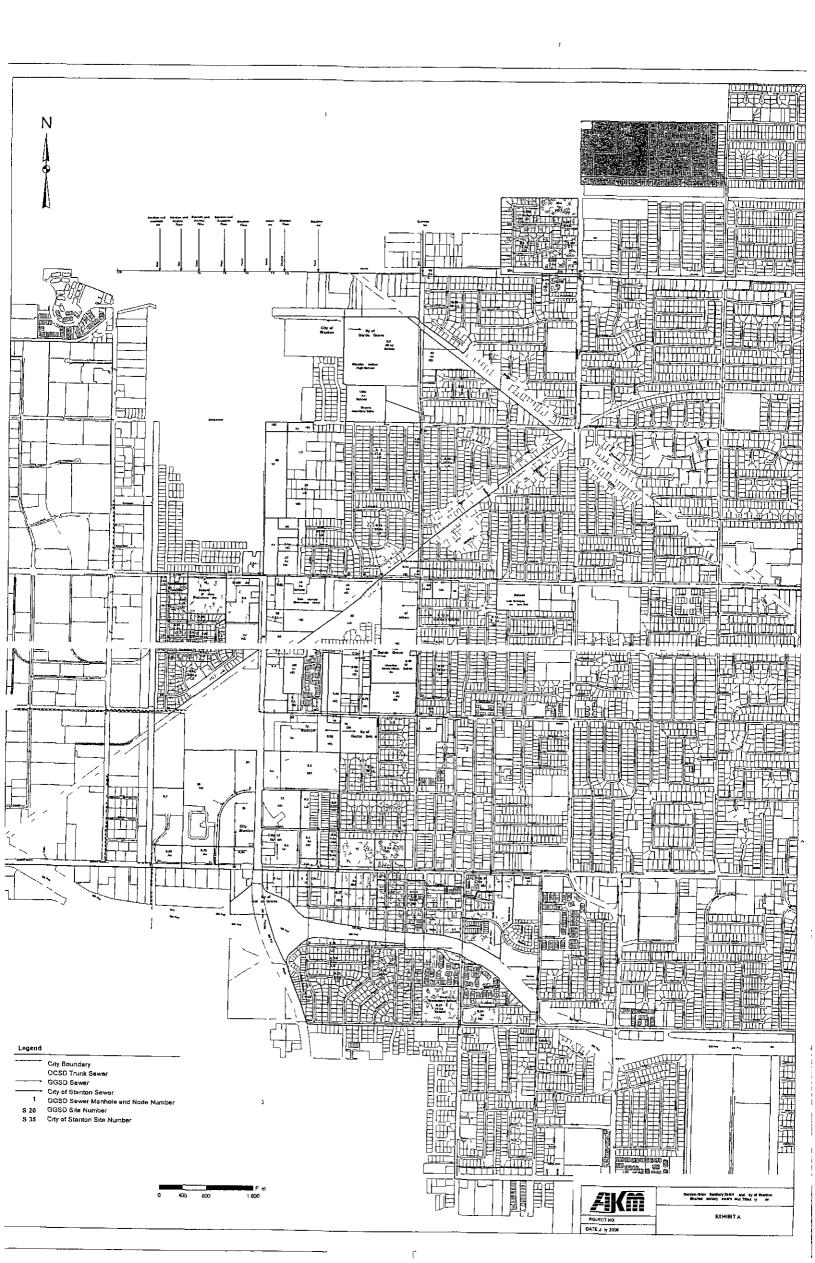


EXHIBIT "B"

UNIT FLOW FACTORS AND PROPORTIONATE FLOWS

l and there	Low	Medium	-	Commer	Indus		Open
Land Uses	Density	Density	Density	cial	trial	School	Space
Unit Flow Factor (gpd/ac)	2 000	3 880	5 820	3 230	3 000	420	200

Garden Grove Boulevard Coast Street and Trask Avenue Sewer Flows and Cost Sharing

		-			GGSD			Stanton							T
Node flow	GGSD Manhole ID	Land Use	Unit Flow Factor (gpd/ac)	Area (Ac)	Ave Flow (gpd)	Ave Flow (cfs)	Area (Ac)	Ave Flow	Ave Flow (cfs)	Total ave Flow (gpd)	Total ave Flow (cfs)	Cumulative Flow GGSD (cfs)	Cumulative Flow Stanton (cfs)	% GGSD	% Stanto
		High Density (S12 S8)	5 820	6	34 920	0 054	1	5 820	0 009	,	·` · · ·	1	,		
		Commercial (S11 S13 S7)	3 230	9	29 070	0 045	2	6 460	0 010						
_		Mixed Use (S14)	3 230	6	19 380	0 030									
Subtotal 1 GG	BLVD Fern to			21	83 370	0 129	3	12,280	0 019	95 650	0 148	0 129	0 019	87%	13
		Low Density(S3 S9 S10)	2 000	45	90 000	0 139	10	20 000	0 031						
	1	Medium Density(S2 S122)	3 880				25	97 000	0 150						
		High Density (S4)	5 820			-	6	34 920	0 054	1					
	İ	Commercial (S1 S5)	3 230				6	19 380	0 030	l					
includes 1	MHJ130005	Mixed Use (S15)	3 230	5	16 150	0 025	_	1		1			:	1	
ubtotal 2 GG	BLVD Sycamo	re to Coast		50	106 150	0 164	47	171 300	0 265	373 100	0 577	0 293	0 284	51%	, 49
ıncludes 2		Commercial (S6)	3 230				10	32 300	0 050						r
Subtotal 3 Co.		309 3 south of GGBLVD					10	32 300	0 050	405 400	0 627	0 293	0 334	47%	53
includes 3		Commercial (S16)	3 230	7	22 610	0 035								Ï	
	ast 3093 souti	n of GGBLVD to Larson		7	22 610	0 035		1		428 010	0 662	0 328	0 334	50%	50
ıncludes 4		High Density (S17)	5 820	19	110 580	0 171						i		j	
	ast Larson to C	entral		19	110 580	0 171				538 590	0 833	0 499	0 334	60%	40
ıncludes 5		Low Density (S18)	2 000	7	14 000										
ubtotal 6 Coa	ast Central to l	mperial		7	14 000	0 022				552 590	0 855	0 521	0 334	61%	, 39
ıncludes 6		Low Density (S19)	2 000	9	18 000	0 028									
ubtotal 7 Coa	ast Imperial to	Bestel		9	18 000	0 028				570 590	0 883	0 549	0 334	62%	J 38
ıncludes 7		Low Density (S20)	2 000	5	10 000	0 015									
ubtotal 8 Co	ast Bestel to T	rask		5	10 000	0 015			·	580 590	0 898	0 564	0 334	63%	37
<u>-</u>		Low Density (S21 S22)	2 000	51	102 000	0 158						1			
	1	High Density (S24 S25)	5 820	81	471 420	0 729									
ıncludes 8	1	Commercial (S26)	3 230	2	6 460	0 010									
		School (S23)	420	11	4 620	0 007	***************************************	† <u>"</u>							
		Mixed Use (S27)	3 230	11	35 530	0 055									
ubtotal 9 Tra	sk Coast to Be	ach		156	620 030	0 959				1 200 620	1 857	1 523	0 334	82%	18
			Total	274	984 740	1 523	60	215 880	0.334	1,200 620	1 857	1 523	0 334		

NOTE

	_						
	Low	Medium	High	Commer	Indus		Open
Land Uses	Density	Density	Density	cıal	trial	School	Space
Unit Flow Factor (gpd/ac)	2 000	3 880	5 820	3 230	3 000	420	200

Garden Grove Boulevard East of Village Center Drive to Hoover Street Sewer Flows and Cost Sharing

	1				GGSD	,		Stanton							
Node Flow applied	GGSD Manhole ID	Land Use	Unit Flow Factor (gpd/ac)	Area (Ac)	Ave Flow (gpd)	Ave Flow (cfs)	Area (Ac)	Ave Flow	Ave Flow (cfs)	Total ave Flow (gpd)		Cumulative Flow GGSD (cfs)		%	% Stanton
20	MHI130003	Commercial (\$34 \$35)	3 230	9	29 070	0 045	12	38 760	0 060	(3))	(-1-)	(0.07	(515)	0000	Otanion
Subtotal 20 Ga	arden Grove Bl	vd east of Village Center Drive	1,	9	29,070			38 760	0 060	67 830	0 105	0 045	0 060	43%	57%
		High Density (S33)	5 820				28	162 960	0 252		0 .00	0 043	0 000	4376	37.76
21 includes 20		Commercial (S32 S84)	3 230	6	19 380	0.030	7	22 610	0 035						
Subtotal 21 Ga	arden Grove Bl	vd Village Center Drive to east of Hoover		6	19,380	0 030	35	185 570	0 287	272 780	0 422	0 075	0 347	18%	82%
		Commercial (S30)	3 230	5	16 150	0 025						33.3	0 0 11	1070	02.78
22 includes 21		Industrial (S31)	3 000				13	39 000	0 060						•
Subtotal 22 Ga	arden Grove Bl	vd_east of Hoover to Hoover (OCSD)		5	16 150	0 025	13		0 060		0 507	0 100	0 407	20%	80%
			Total	20	64 600	0 100	60	263 330	0 407	327,930	0 507		0 407	20,0	0070

NOTE

	1						
	Low	Medrum	High	Commer	Indus		Open
Land Uses ``	Density	Density	Density	cıal	trial	School	Space
Unit Flow Factor (gpd/ac)	2 000	3 880	5 820	3 230	3 000	420	200

Dale Street and Lampson Avenue Sewer Flows and Cost Sharing

					GGSD			Stanton							
Node flow applied	GGSD Manhole ID	Land Use	Unit Flow Factor (gpd/ac)	Area (Ac)	Ave Flow (gpd)	Ave Flow (cfs)	Area (Ac)	Ave Flow (gpd)	Ave Flow (cfs)	Total ave Flow (gpd)		Cumulative Flow GGSD (cfs)	Cumulative Flow Stanton (cfs)	% GGSD	% Stanto
30	MHK090037	Low Density (\$73)	2 000	5	10 000	0 015				, ,		, , , , , , , , , , , , , , , , , , ,	,		
		High Density (\$41)	5 820				7	40 740	0 063				İ	ļ	
	ale Barr to Ena	ult		5	10 000	0 015	7	40 740	0 063	50 740	0 078	0 015	0 063	20%	809
31 includes 30		Low Density (S40)	2 000	3	6 000	0 009					0.070	1	0 000	2078	
Subtotal 31 De	ale Enault to R	obinet		3	6 000	0 009				56 740	0 088	0 025	0 063	28%	729
32 includes 31		Low Density (S74)	2 000	16	32 000	0 050							0 230	2070	
		School (S38)	420	13	5 460	0 008						ŀ			
Subtotal 32 Da	ale Robinet to	Lampson		29	37 460					94 200	0 146	0 083	0 063	57%	43%
33 includes 32		Low Density (S76)	2 000	2	4 000	0 006								0, 70	107
	<u> </u>	High Density (S75)	5 820	5	29 100	0 045						<u> </u>			
Subtotal 33 La	ampson Dale to	west of Dale		7	33 100	0 051				127 300	0 197	0 134	0 063	68%	32%
34 includes 33		Low Density (S77)	2 000	3	6 000	0 009		ĺ							07
		Open Space (S93)	200	11	2 200	0 003		, -							
Subtotal 34 La	ampson west o	f Dale to west of Arrowhead		14	8 200	0 013				135 500	0 210	0 147	0 063	70%	30%
		High Density (S78 S79 S39)	5 820	2	11 640	0 018	11	64 020	0 099					- 1070	- 007
35 includes 34	MHJ110015	Medium Density (S82)	3 880	8	31 040	0 048									
		Open Space (S37)	200	10	2 000	0 003									
Subtotal 35 La	ampson west o	f Arrowhead to east of Beach Blvd		20	44 680	0 069	11	64 020	0 099	244 200	0 378	0 216	0 162	57%	43%
		High Density (S81)	5 820				2	11 640	0 018						10.
		Medium Density (S80 S83)	3 880	4	15 520	0 024	5	19 400	0 030			ĺ	ĺ		l
36 includes 35		Commercial (S36 S97)	3 230				16	51 680	0 080						1
Subtotal 36 La	impson east of	Beach Blvd to Beach Blvd (OCSD)		4	15 520	0 024	23	82 720	0 128	342 440	0 530	0 240	0 290	45%	55%
			Total	82	154 960	0 240	41	187 480	0 290	342 440	0 530	0 240	0 290		

NOTE

Land Uses	Low Density	Medium Density	9	Commer	Indus trial	School	Open Space
Unit Flow Factor (gpd/ac)	2 000	3 880	5 820	3 230	3 000	420	200

Beach Boulevard North of Lampson Avenue Sewer Flows and Cost Sharing

					GGSD			Stanton							
Node flow applied	GGSD Manhole ID	Land Use	Unit Flow Factor (gpd/ac)	Area (Ac)	Ave Flow (gpd)	Ave Flow (cfs)	Area (Ac)	Ave Flow (gpd)		Total ave Flow (gpd)		Cumulative Flow GGSD	Cumulative Flow Stanton (cfs)	%	% Stantor
80		High Density (S108 S110)	5 820	7	40 740	0 063	7	40 740	0 063				<u> </u>		
		Commercial (S100 S101 S102 S99)	3 230				14	45 220	0 070	1				l	
Subtotal 80 Be	each Blvd sout	h of Chapman		7	40 740	0 063	21	85 960	0 133	126 700	0 196	0 063	0 133	32%	68%
· · · · · · · · · · · · · · · · · · ·		Low Density (S103)	2 000				24	48 000	0 074						1 30%
81 includes 80		High Density (S104 S106)	5 820				15	87 300	0 135					i	
or includes oo		Medium Density (S105)	3 880				3	11 640	0 018	1		!		l	
		Commercial (S107 S109 S111)	3 230				9	29 070	0 045					i	
Subtotal 81 Be	each Blvd sout	h of Chapman to Lampson					51	176 010	0 272	302 710	0 468	0 063	0 405	13%	87%
			Total	7	40 740	0 063	72	261 970	0 405	302 710	0 468	0 063	0 405		

NOTE

EXHIBIT B
GARDEN GROVE SANITARY DISTRICT AND CITY OF STANTON SHARED SANITARY SEWERS UNIT FLOW FACTORS AND PROPORTINATE FLOWS

	Low	Medium	High	Commer	Indus		Open
Land Uses	Density	Density	Density		trial	School	Space
Unit Flow Factor (gpd/ac)	2 000	3 880	5 820	3 230	3 000	420	200

Santa Rosalia Devonwood Belgrave, Laurelton Sewer Flows and Cost Sharing

					GGSD			Stanton							
Node flow	GGSD		Unit Flow Factor	Area	Ave Flow			Ave Flow	Ave Flow	Total ave	Total ave Flow	Cumulative Flow GGSD		%	%
applied	Manhole ID	Land Use	(gpd/ac)		(gpd)	(cfs)	(Ac)	(gpd)	(cfs)	Flow (gpd)	(cfs)	(cfs)	(cfs)	GGSD	Stantor
60	MHI090022	Low Density (\$70)	2 000	3	6 000										
0	1	High Density (S700)	5 820	1	5 820									1	
		anguard to Amy		4	11 820	0 018				11 820	0 018	0 018		100%	0%
		Low Density (S86)	2 000				5		0 015			1			
Subtotal 61 S	anta Rosalia Ai	· · · · · · · · · · · · · · · · · · ·					5	10 000	0 015	21 820	0 034	0 018	0 015	54%	46%
		Low Density (S85)	2 000	4	8 000	0 012									
62	MHI090018	Commercial (S96)	3 230				7	22 610	0 035			İ			
		School (S49)	420	11	4 620	0 007]		ŀ			
Subtotal 62 L	aurelton east o	f Santa Rosalia		15	12,620	0 020	7	22 610	0 035	35 230	0 055	0 020	0 035	36%	£ 64%
63		Low Density (S88)	2 000	3	6 000	0 009									
Subtotal 63 B	lelgrave east of	Santa Rosalia		3	6 000	0 009	0	0	0 000	6 000	0 009	0 009	0 000	100%	3 0%
64 includes 61 62 & 63	MHI090015	Low Density (S87)	2 000		<u>.</u>		5	10 000	0 015						ı
	anta Rosalia Be	elgrave to Bently					5	10 000	0 015	73 050	0 113	0 047	0 066	42%	58%
65 includes 64		Low Density (S89 S90)	2 000	1	2 000	0 003	5	10 000	0 015						
Subtotal 65 S	anta Rosalia Be	ently to Devonwood		1	2 000	0 003	5	10 000	0 015	85 050	0 132	0 050	0 081	38%	62%
66		Low Density (S71)	2 000	3	6 000	0 009									
Subtotal 66 F	ieldgate north c	of Devonwood		3	6 000	0 009	0	0	0 000	6 000	0 009	0 009		100%	0%
67 includes 65															
& 66		Low Density (S91)	2 000				8	16 000	0 025			1			1
Subtotal 67 S	anta Rosalia De	evonwood to north of Lampson	•				8	16 000	0 025	107 050	0 166	0 059	0 106	36%	64%
68 includes 67		Low Density (S92)	2 000				22	44 000	0 068		1			<u> </u>	
Subtotal 68 S	anta Rosalia no	orth of Lampson		·			22	44 000	0 068	151 050	0 234	0 059	0 174	25%	75%
			Total	26	38 440	0 059	52		0 174	151 050			0 174		7370

NOTE

EXHIBIT B
GARDEN GROVE SANITARY DISTRICT AND CITY OF STANTON SHARED SANITARY SEWERS UNIT FLOW FACTORS AND PROPORTINATE FLOWS

	Low	Medium	High	Commer	Indus		Open
Land Uses	Density	Density	Density	cial	trial	School	Space
Unit Flow Factor (gpd/ac)	2 000	3 880	5 820	3 230	3 000	420	200

Dale Street and Chapman Avenue Sewer Flows and Cost Sharing

	1				GGSD			Stanton							1
Node flow	CCCD		Unit Flow	_	Ave		_		Ave		Total ave	Cumulative	Cumulative Flow		
	GGSD	1 - 111 -	Factor	Area	Flow	1		Ave Flow	Flow	Total ave	Flow	Flow GGSD		%	%
applied	Manhole ID	Land Use	(gpd/ac)		(gpd)	(cfs)	(Ac)	(gpd)	(cfs)	Flow (gpd)	(cfs)	(cfs)	(cfs)	GGSD	Stanto
		Low Density (\$43)	2 000	81			<u> </u>								
44	MHK090043	High Density (S67 S64)	5 820	1	5 820	1	2	11 640	0 018					l	
		Commercial (S63 S66)	3 230	2			2	6 460	0 010					ŀ	
S. 154-4-1 44 G	<u> </u>	School (S65)	420	11		1								ŀ	
Subtotal 44 C	napman Daie t	o Anaheim Barber City Channel			178 900		4	18,100	0 028	197 000	0 305	0 277	0 028	91%	6 9%
1		High Density (S44)	5 820	3	17 460	0 027									
		Medium Density (S42)	3 880				12	46 560	0 072						
Subtotal 45 C	hapman Anahe	um Barber City Channel to Nearing		3	17 460	0 027	12	46 560	0 072	261 020	0 404	0 304	0 100	75%	25%
		Low Density (S51 S52 S53 S54 S55 S59										<u> </u>		<u> </u>	
		S121)	2 000	177	354 000	0 548									
		High Density (S62)	5 820	9	52 380	0 081									
46 includes 45		School (S61 S1000)	420	50	21 000	0 032									
	hapman Nearin	ng to Rockview		236	427 380	0 661				688 400	1 065	0 965	0 100	91%	99
47 includes 46	MHJ090006	High Density (S45)	5 820				8	46 560	0 072			3 3 3 3	0.100	0.70	- "
Subtotal 47 C.	hapman Rockv	rew to Arthur					8	46 560	0 072	734 960	1 137	0 965	0 172	85%	15%
		Low Density (S56)	2 000	20	40 000	0.062					. , , ,	- 0 000	0 172	0075	107
48 includes 47	MHJ090008	School (S46)	420				9	3 780	0 006			İ		1	
İ	1	High Density (S112)	5 820				2	11 640	0 018						
Subtotal 48 C	hapman Arthur	to west of Beach Blvd		20	40 000	0 062	11	15 420	0 024	790 380	1 223	1 027	0 196	84%	16%
49 includes 48	MHJ090009	High Density (S57)	5 820				3	17 460	0 027	100 000	. 220	1 021	0 190	04 /6	107
		f Beach Blvd to Beach Blvd	1 0 020	-			3	17 460	0 027	807 840	1 250	1 027	0 223	82%	189
* * * * * * * * * * * * * * * * * * * *	T	Low Density (S117 S1002 S1001)	2 000	8	16 000	0 025	27	54 000	0.084	007 040	1 2 3 0	1 027	0 223	0276	107
		High Density (S115 S120)	5 820	,	10 000	0 023	2	17 460	0 004						
50 includes 49	MHJ090910	Commercial (S68 S69 S114 S1006)	3 230				22	71 060	0 110			{		1	
Subtotal 50 Be			0 200	8	16 000	0 025			0 220	966 360	1.405	1.050	0.440	700/	000
51 includes 50		Commercial (S47)	3 230		10 000	0 023	32	9 690	0 015	900 300	1 495	1 052	0 443	70%	30%
		Blvd to Western (OCSD)	1 2 230				2	9 690	0 015	0.76.050	4 540	4.555	0.450	700.	1
		Dire to restern (OOD)	Total	200	679 740	1 052	93		0 458	976 050 976 050	1 510 1 510		0 458 0 458		30%

NOTE

EXHIBIT B
GARDEN GROVE SANITARY DISTRICT AND CITY OF STANTON SHARED SANITARY SEWERS UNIT FLOW FACTORS AND PROPORTINATE FLOWS

	Low	Medium	High	Commer	Indus		Open
Land Uses	Density	Density	Density	cıal	trial	School	Space
Unit Flow Factor (gpd/ac)	2 000	3 880	5 820	3 230	3 000	420	200

Katella Avenue from Dale Street to Western Avenue Sewer Flows and Cost Sharing

		1			GGSD			Stanton					}		
Node flow applied	GGSD Manhole ID	Land Use	Unit Flow Factor (gpd/ac)	Area (Ac)	Ave Flow (gpd)	Ave Flow (cfs)	Area (Ac)	Ave Flow (gpd)	Ave Flow (cfs)	Total ave Flow (gpd)	Total ave Flow (cfs)	Cumulative Flow GGSD (cfs)		% Garden Grove	1 /-
		Low Density (S50)	2 000	36									<u> </u>		
70		Commercial (S60)	3 230	1	3 230	0 005	3	9 690	0 015	J		}		i	1
		Medium Density (Mobile Home)	3 880				16	62 080	0 096			1	ĺ	i	
	ļ <u>.</u>	Industrial	3 000				10	30 000	0 046]			
Subtotal 70 Ka	atella and Dale			37	75 230	0 116	29	101 770	0 157	177 000	0 274	0 116	0 157	43%	57
71 includes 70		Industrial	3 000				57	171 000	0 265						
		Medium Density	3 880				8	31 040	0 048						
Subtotal 71 Da							57	202 040	0 313	379 040	0 586	0 116	0 470	20%	80
72 includes 71		Commercial	3 230				10	32 300	0 050						1
Subtotal 72 Co	ourt to Chestnu	t					10	32 300	0 050	411 340	0.636	0 116	0 520	18%	82
73 includes 72		Commercial	3 230				4	12 920	0 020		0.000	<u> </u>		1070	02
Subtotal 73 Cl	hestnut to Beac	h Bivd					4	12 920	0 020	424 260	0.656	0 116	0 540	18%	82
74 includes 73		Low Density	2 000				5	10 000	0 015				00.0	1076	02
		Commercial	3 230				2	6 460	0.010			i			
Subtotal 74 Be	ach Blvd to Flo	ower					7	16 460	0 025	440 720	0.682	0 116	0 565	17%	83
	1	Low Density	2 000				115	230 000	0 356		0 002		0.000	17.70	1
		Medium Density	3 880				21	81 480	0 126	j		J			
75 includes 74		High Density	5 820				106	619 364	0 958					ĺ	ĺ
		Commercial	3 230				37	119 510	0 185						
		Industrial	3 000				154	460 500	0 712						
Subtotal 75 Flo	ower to Rose						433	1 510 854	2 337	1 951 574	3.019	0 116	2 903	4%	<u>~</u> 96
76 includes 75		Low Density	2 000				8	16 000	0 025		0 010	0 110	2 000	470	30
70 Includes 75		Commercial	3 230				3	9 690	0 015						
Subtotal 76 Ro	se to Cedar		1				11	25,690	0 040		3.050	0 116	2 943	4%	96
77		Low Density	2 000				7	14 000	0 022	1017 204	3 000	0 110	2 843	470	90
77 includes 76		Commercial	3 230				2	6 460	0 010					ļ	
Subtotal 77 Ce	dar to Oak		, 0200				9	20 460	0 032	1 997 724	3 001	0 116	2 974	4%	96
		Low Density	2 000		-		7	14 000	0 022	1 551 124	ופטכ	0110	_ 2814	4%	90
78 includes 77		Medium Density	3 880				20	77 600	0 120					l	
		Commercial	3 230	i			20	8 075	0 012					l	
Subtotal 78 Oa	k to Date		1 3 2 3 0				30	99 675	0 154	2 097 399	2 245	0 116	2 100	100	
79 includes 78	1						30	33 07 3	0 134	2 097 399	J 245	0 116	3 128	4%	96
Subtotal 79 Date	e to Western									0.007.000					[
			Total	37						2 097 399	3 245	0 116	3 128	4%	96

NOTE

EXHIBIT B
GARDEN GROVE SANITARY DISTRICT AND CITY OF STANTON SHARED SANITARY SEWERS UNIT FLOW FACTORS AND PROPORTINATE FLOWS

	_						
	Low	Medium	High	Commer	indus		Open
Land Uses	Density	Density	Density	çıal	trial	School	Space
Unit Flow Factor (gpd/ac)	2 000	3 880	5 820	3 230	3 000	420	200

Katella Avenue west of Magnolia Street Sewer Flows and Cost Sharing

					GGSD			Stanton							
Node flow	GGSD Manhole ID	Land Use	Unit Flow Factor (gpd/ac)	Area (Ac)	Ave Flow (gpd)	Ave Flow (cfs)	Area (Ac)	Ave Flow	Ave Flow (cfs)	Total ave Flow (gpd)	_	Cumulative Flow GGSD (cfs)	Cumulative Flow Stanton (cfs)	%	% Stanto
200	MHK040011	Low Density (S281)	2 000	2	4 000	0 006			·				,		
		High Density (S264 S267)	5 820				7	40 740	0 063			İ		1	
Subtotal 200	Syracuse Magn	iolia to Mac		2	4 000	0 006	7	40 740	0 063	<u>44</u> 740	0 069	0 006	0 063	9%	91%
202 includes 200		Low Density (\$800)	2 000	11	22 000	0 034									
Subtotal 202	Mac Syracuse	to Katella		11	22 000	0 034			_	66 740	0 103	0 040	0 063	39%	61%
204 includes 202		Low Density (\$282)	2 000	13	26 000	0 040									
Subtotal 204	Katella Mac to	west of Magnolia		13	26 000	0 040				92,740	0 143	0 080	0 063	56%	44%
206 includes		Commercial (S269 S283)	3 230	. 5	16 150	0 025									
204		High Density (S270)	5 820	1	5 820	0 009									
	Katella, west of	мадпона		6	21,970	0 034				<u>114</u> 710	0 177	0 114	0 063	64%	36%
207 includes 206		Commercial (S268)	3 230				1	3 230	0 005						
Subtotal 207	Katella west of	Magnolia to Magnolia					1	3 230	0 005	117 940	0 182	0 114	0 068	63%	37%
			Total	32	73 970	0 114	8	43 970	0 068	117 940	0 182	0 114	0 068		

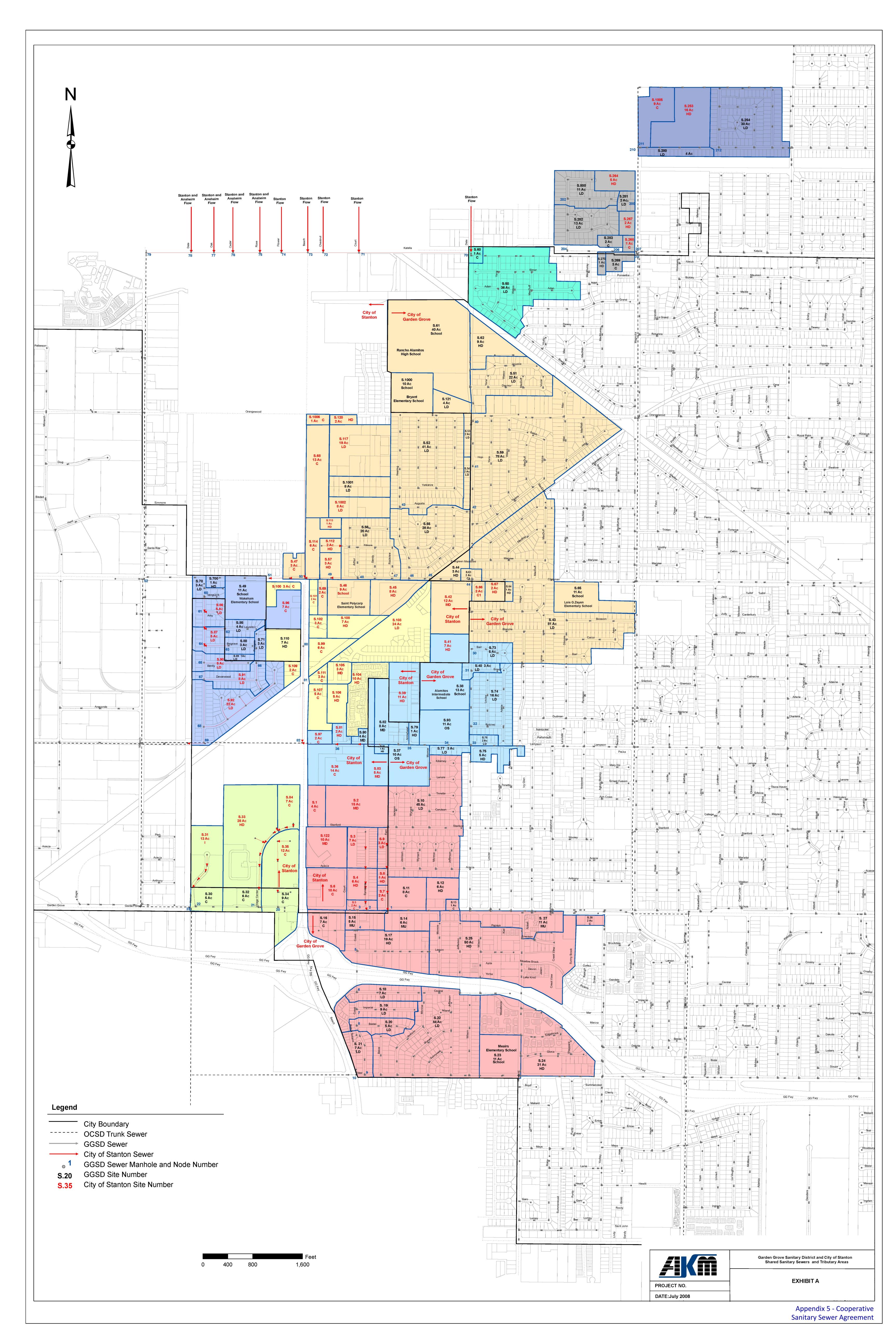
NOTE

	Low	Medium	High	Commer	Indus		Open
Land Uses	l	Density		į	trial	School	Space
Unit Flow Factor (gpd/ac)	2 000	3 880	5 820	3 230	3 000	420	200

Pacific Avenue from Rodeo Drive to Magnolia Street Sewer Flows and Cost Sharing

				G	arden Gr	ove		Stanton		Total ave	Total				
flow applied	GGSD Manhole ID	ID Land Use	Unit Flow Factor (gpd/ac)	Area (Ac)	Ave Total Flow (gpd)	Ave Total Flow (cfs)		Ave Total Flow (gpd)	Ave Total Flow (cfs)	Flow (gpd) for GGSD Stanton and Anaheim	Flow (cfs) for	Cumulative Flow Garden Grove (cfs)		% Garden	% Stantor
212		Low Density (S254)	2 000	30	60 000	0 093						<u> </u>	, , , , , , , , , , , , , , , , , , , ,		
Subtotal 212 F	acific Rodeo	to east of Magnolia		30	60 000	0 093				60 000	0 093	0 093		100%	0%
		Low Density (S280)	2 000	4	8 000	0 012				 					
211 includes 212	MHL030016	Commercial (S1005)	3 230				9	29 070	0 045]					
212		High Density (S253)	5 820] .	16	93 120	0 144	ļ					
Subtotal 211 F	acific east of	Magnolia to Magnolia	-	4	8 000	0 012	25	122 190	0 189	190 190	0 294	0 105	0 189	36%	64%
			Total	34	68 000	0 105	25	122 190	0 189	190 190	0 294	0 105	0 189		

NOTE



Appendix 6 - High Frequency Maintenance Locations

Docation Pipe ID Manhole Man	Roots 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0
B020-B045 B020 B045 Cerritos ave 8 VCP 273 2 2 2 2 2 2 2 2 2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
B021-B020 B021 B020 Cerritos ave 8 VCP 331 2 2 2 2 2 2 2 2 2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
B022-B021 B022 B021 Cerritos ave 8 VCP 121 2 2 2 8023-B022 B023 B022 Cerritos ave 8 VCP 198 2 2 2 8024-B023 B024 B023 Cerritos 8 VCP 60 2 2 2 8025-B024 B025 B024 Cerritos ave 8 VCP 244 2 2 2 8026-B026 B026A B026 Lowden ave 8 VCP 244 2 2 2 8 8026-B025 B026 B026 B026 Eorritos ave 8 VCP 50 1 3 8 8 8 8 8 8 8 8 8	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
B023-B022 B023 B022 Cerritos ave 8 VCP 198 2 2 2 8 8 2 2 8 8	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
B024-B023 B024 B023 Cerritos 8 VCP 60 2 2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
B025-B024 B025 B024 Cerritos ave 8 VCP 244 2 2 2 2 B026A-B026 B026A B026 Lowden ave 8 VCP 50 1 3 3 3 3 3 3 3 3 3	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
B026A-B026 B026A B026 Lowden ave 8 VCP 50 1 3	0 0 0 0 0 0 0 0 0 1 1 1 0 0
B026-B025 B026 B025 Cerritos ave 8 VCP 17 1 0	0 0 0 0 0 0 0 0 1 1 0 0 0
B041-B019 B041 B019 Knott ave 8 VCP 263 1 2	0 0 0 0 0 0 0 1 1 0 0 0
B041-B019 B041 B019 Knott ave 8 VCP 263 1 2	0 0 0 0 0 0 1 1 1 0 0
H020-H019	0 0 0 0 0 1 1 0 0 0
H021-H020	0 0 0 0 1 1 0 0 0
H022-H021 H022 H021 Knott ave 10 VCP 70 2 2	0 0 0 1 1 0 0 0
H083-B021	0 0 1 1 0 0 0 0
H093-B023	0 1 1 0 0 0 0
H095-B026A	1 1 0 0 0 0
H096-H095	1 0 0 0 0
B002-B001 B002 B001 Cerritos 8 VCP 135 2 2 2 2 2 2 2 2 2	0 0 0 0
B003-B002 B003 B002 Cerritos ave 8 VCP 123 2 2 B004-B003 B004 B003 Cerritos 8 VCP 137 2 2 B005-B004 B005 B004 Cerritos ave 8 VCP 135 2 2 B006-B005 B006 B005 Cerritos 8 VCP 123 2 2 B007-B006 B007 B006 Cerritos 8 VCP 259 2 2 H097-B003 H097 B003 Courson 8 VCP 374 2 2 H102-B001 H102 B001 Ramblewood 8 VCP 200 2 2 H107-B005 H107 B005 Cerritos 8 VCP 283 1 2	0 0 0 0
B004-B003 B004 B003 Cerritos 8 VCP 137 2 2 B005-B004 B005 B004 Cerritos ave 8 VCP 135 2 2 B006-B005 B006 B005 Cerritos 8 VCP 123 2 2 B007-B006 B007 B006 Cerritos 8 VCP 259 2 2 H097-B003 H097 B003 Courson 8 VCP 374 2 2 H102-B001 H102 B001 Ramblewood 8 VCP 200 2 2 H107-B005 H107 B005 Cerritos 8 VCP 283 1 2	0 0
B005-B004 B005 B004 Cerritos ave 8 VCP 135 2 2 B006-B005 B006 B005 Cerritos 8 VCP 123 2 2 B007-B006 B007 B006 Cerritos 8 VCP 259 2 2 H097-B003 H097 B003 Courson 8 VCP 374 2 2 H102-B001 H102 B001 Ramblewood 8 VCP 200 2 2 H107-B005 H107 B005 Cerritos 8 VCP 283 1 2	0
2 B006-B005 B006 B005 Cerritos 8 VCP 123 2 2 B007-B006 B007 B006 Cerritos 8 VCP 259 2 2 H097-B003 H097 B003 Courson 8 VCP 374 2 2 H102-B001 H102 B001 Ramblewood 8 VCP 200 2 2 H107-B005 H107 B005 Cerritos 8 VCP 283 1 2	0
B007-B006 B007 B006 Cerritos 8 VCP 259 2 2 H097-B003 H097 B003 Courson 8 VCP 374 2 2 H102-B001 H102 B001 Ramblewood 8 VCP 200 2 2 H107-B005 H107 B005 Cerritos 8 VCP 283 1 2	_
H097-B003 H097 B003 Courson 8 VCP 374 2 2 H102-B001 H102 B001 Ramblewood 8 VCP 200 2 2 H107-B005 H107 B005 Cerritos 8 VCP 283 1 2	0
H102-B001 H102 B001 Ramblewood 8 VCP 200 2 2 H107-B005 H107 B005 Cerritos 8 VCP 283 1 2	U
H107-B005 H107 B005 Cerritos 8 VCP 283 1 2	0
	0
D026 D026 D026 Store 9 VCD 356 3 3	0
D026-D025 D026 D025 Starr 8 VCP 256 2 2	0
D027A-D026	0
D027-D027A D027 D027A Star and Fern 8 VCP 165 1 0	0
D028-D027 D028 D027 Star and Fern 8 VCP 90 1 0	0
3 D029-D028 D029 D028 Starr 8 VCP 152 2 1	0
D030-D029 D030 D029 Star and Fern 8 VCP 83 1 0	0
D074-D030 D074 D030 Star and Fern 8 VCP 273 1 0	0
D092-D074 D092 D074 Star and Fern 8 VCP 340 1 1	0
C004-I044 C004 I044 Rose st 12 VCP 339 1 2	0
C007-I102 C007 I102 Rose st 18 VCP 316 1 2	0
C057-I051 C057 I051 Rose st 10 VCP 332 2 2	0
C058-C057 C058 C057 Rose st 12 VCP 314 2 2	0
1037-1009 1037 1009 Rose st 10 VCP 318 2 2	0
1038-1037 1038 1037 Rose st 10 VCP 338 1 2	0
1039-1038 1039 1038 Rose st 10 VCP 327 2 2	0
1040-1039 1040 1039 Rose st 10 VCP 300 2 2	0
1041-1040 1041 1040 Rose st 12 VCP 414 2 2	0
4 1042-1041 1042 1041 Rose st 12 VCP 60 2 2	0
1043-1042 1043 1042 Rose st 12 VCP 344 2 2	0
1044-1043 1044 1043 Rose st 12 VCP 330 2 2	0
1045-1009 1045 1009 Rose st 12 VCP 302 2 2	0
1046-1045 1046 1045 Rose st 12 VCP 310 2 2	0
1047-1046 1047 1046 Rose st 12 VCP 330 2 2	0
1048-1047 1048 1047 Rose st 12 VCP 300 1 2	0
1049-1048 1049 1048 Rose st 10 VCP 403 2 2	
	0

Hot Spot	0: 10	Upstream	Downstream	Landin	Diameter	Nastavial	Length	Main	tenance Hi	story*
Location	Pipe ID	Manhole	Manhole	Location	(in)	Material	(ft)	Debris	Grease	Roots
	1051-1050	1051	1050	Rose st	10	VCP	317	2	2	0
	I102-I103	I102	I103	Rose st	18	VCP	353	2	2	0
	I103-I104	1103	1104	Rose st	18	VCP	330	2	2	0
4	I104-I105	1104	I105	Rose st	18	VCP	424	2	2	0
4	1105-1106	I105	I106	Rose st	18	VCP	242	2	2	0
	1106-1107	1106	I107	Rose st	18	VCP	326	2	2	0
	1107-1108	1107	1108	Rose st	18	VCP	338	2	2	0
	1108-1010	I108	1010	Rose st	18	VCP	311	2	2	0
	H052-H051	H052	H051	Bock Ave	8	VCP	30	3	3	0
	H053-H052	H053	H052	Bock Ave	8	VCP	368	2	2	0
5	H065-H106	H065	H106	Easement Bock Ave to Thunderbird Ln	8	VCP	193	3	3	0
	H106-H052	H106	H052	Easement Bock Ave to Thunderbird Ln	8	VCP	129	3	3	0
	M004-M003	M004	M003	Katella	8	VCP	105	2	2	0
	M005-M004	M005	M004	Custer way	8	VCP	235	1	1	0
6	M013-M004	M013	M004	Marshall way	8	VCP	250	2	1	0
	M016-M005	M016	M005	Custer way	8	VCP	65	2	1	0
	M017-M016	M017	M016	Grant way	8	VCP	65	2	0	0
	M029-M028	M029	M028	Lambert way	8	VCP	37	1	2	0
	M030-M029	M030	M029	Lambert way	8	VCP	230	1	1	0
7	M031-M030	M031	M030	Hampton way	8	VCP	210	1	2	0
,	M032-M031	M032	M031	Hampton way	8	VCP	210	2	1	0
	M034-M029	M034	M029	Cabot way	8	VCP	157	1	1	0
	M035-M034	M035	M034	Austin way	8	VCP	98	1	1	0
	M077-M076	M077	M076	Rutledge ave	8	VCP	178	1	1	0
	M078-M077	M078	M077	Rutledge ave	8	VCP	15	1	0	0
8	M092-M077	M092	M077	Hood way	8	VCP	213	1	1	0
	M093-M092	M093	M092	Kirby way	8	VCP	170	1	1	0
	M094-M093	M094	M093	Kirby way	8	VCP	265	1	1	0
	J033-J032	1033	J032	Monroe	8	VCP	355	2	2	0
9	J034-J033	J034	J033	Monroe	8	VCP	365	2	2	0
	J035-J034	J035	J034	Monroe	8	VCP	50	2	2	0
10	K039-J038	K039	J038	Monroe	6	VCP	70	2	2	0
	R076-R075	R076	R075	Searboard cir	8	VCP	43	3	0	0
	R077-R076	R077	R076	Searboard cir	8	VCP	440	2	0	0
	R078-R077	R078	R077	Seaboard cir	8	VCP	288	2	0	0
11	R079-R078	R079	R078	Searboard cir	8	VCP	203	2	0	0
	R080-R076	R080	R076	Searboard cir	8	VCP	235	2	0	0
	R081-R080	R081	R080	Seaboard cir	8	VCP	285	2	0	0
	R082-R081	R082	R081	Seaboard cir	8	VCP	350	2	0	0
	R046-R045	R046	R045	Santa Rosalia St	10	VCP	267	1	1	0
	R047-R046	R047	R046	Santa Rosalia St	10	VCP	62	2	0	0
12	R061-R083	R061	R083	Hopi rd	8	VCP	345	2	2	0
	R062-R061	R062	R061	Hopi road	8	VCP	334	2	2	0
	R083-R046	R083	R046	Hopi rd	8	VCP	325	2	1	0
	R087-R062	R087	R062	Hopi Rd	8	VCP	340	1	0	1

Hot Spot	Pipe ID	Upstream	Downstream	Location	Diameter	Material	Length	Main	tenance Hi	story*
Location	Tipe ib	Manhole	Manhole	Location	(in)	Material	(ft)	Debris	Grease	Roots
	R001-R802	R001	R802	Chapman Ave.	8	VCP	255	2	3	0
	R002-R001	R002	R001	Santa Rosalia St	8	VCP	200	2	2	0
	R003-R002	R003	R002	Santa rosalia	8	VCP	360	1	1	0
	R004-R003	R004	R003	Santa rosalia	8	VCP	360	1	1	0
	R005-R004	R005	R004	Santa rosalia	8	VCP	361	2	1	0
	R006-R005	R006	R005	Santa Catalina	8	VCP	72	2	0	0
	R007-R006	R007	R006	Santa Catalina	8	VCP	349	2	1	0
	R008-R085	R008	R085	Santa Catalina	8	VCP	338	1	1	1
13	R009-R008	R009	R008	Santa Catalina ave	8	VCP	352	2	1	0
	R017-R002	R017	R002	St gertrudes	8	VCP	291	1	2	0
	R018-R017	R018	R017	St gertrudes	8	VCP	284	1	2	0
	R035-R034	R035	R034	Santa Paula	8	VCP	286	1	1	0
	R036-R035	R036	R035	Santa Paula	8	VCP	273	2	2	0
	R037-R036	R037	R036	Santa Paula	8	VCP	287	1	0	0
	R085-R007	R085	R007	Santa Catalina	8	VCP	360	1	1	1
	R801A-R801	R801A	R801	Chapman Ave.	8	VCP	332	2	3	0
	R802-R801A	R802	R801A	Chapman Ave.	8	VCP	330	2	3	0
	V004-V002	V004	V002	Santa rosalia	8	VCP	252	1	2	0
	V004-V003	V004	V003	Santa rosalia	8	VCP	230	1	2	0
14	V005-V004	V005	V004	Santa rosalia	8	VCP	377	2	2	0
14	V006-V005	V006	V005	Santa rosalia	8	VCP	375	1	1	0
	V012-V004	V012	V004	Georgian	8	VCP	206	1	2	0
	V013-V012	V013	V012	Georgian	8	VCP	202	1	2	0
	W008-W007	W008	W007	Beach blvd	8	VCP	332	2	2	0
	W009-W008	W009	W008	Beach blvd	8	VCP	85	1	3	0
	W010-W008	W010	W008	Beach blvd	8	VCP	165	1	3	0
15	W011-W010	W011	W010	Beach blvd	8	VCP	175	1	2	0
	W012-W011	W012	W011	Beach blvd	8	VCP	336	1	2	0
	W027-W009	W027	W009	Beach blvd	8	VCP	308	1	2	0
	W028-W027	W028	W027	Beach blvd	8	VCP	308	1	2	0
	Z007-Z029	S008	S009	Acacia	8	VCP	230	2	2	0
	Z015-Z028	Z015	Z028	Food 4 Less	8	VCP	152	2	2	0
	Z021-Z022	Z021	Z022	Shopping center	8	VCP	220	1	2	0
	Z022-Z023	Z022	Z023	Shopping center	8	VCP	220	2	2	0
16	Z023-Z024	Z023	Z024	Shopping center	8	VCP	24	1	2	0
	Z024-Z015	Z024	Z015	Shopping center	8	VCP	147	1	1	0
	Z025-Z015	Z025	Z015	Shopping center	6	PVC	365	2	2	0
	Z026-Z025	Z025	Z026	Food 4 Less	6	PVC	366	2	3	0
	Z029-Z021	Z029	Z021	Acacia	8	PVC	470	2	2	0
GG	S008-S009	S008	S009	Chapman Ave.	8	Unknown	328	1	3	0
Sewer**	S009-S010	S009	S010	Chapman Ave.	10	Unknown	160	1	3	0

^{*} 3 = High, 2 = Medium, 1 = Low

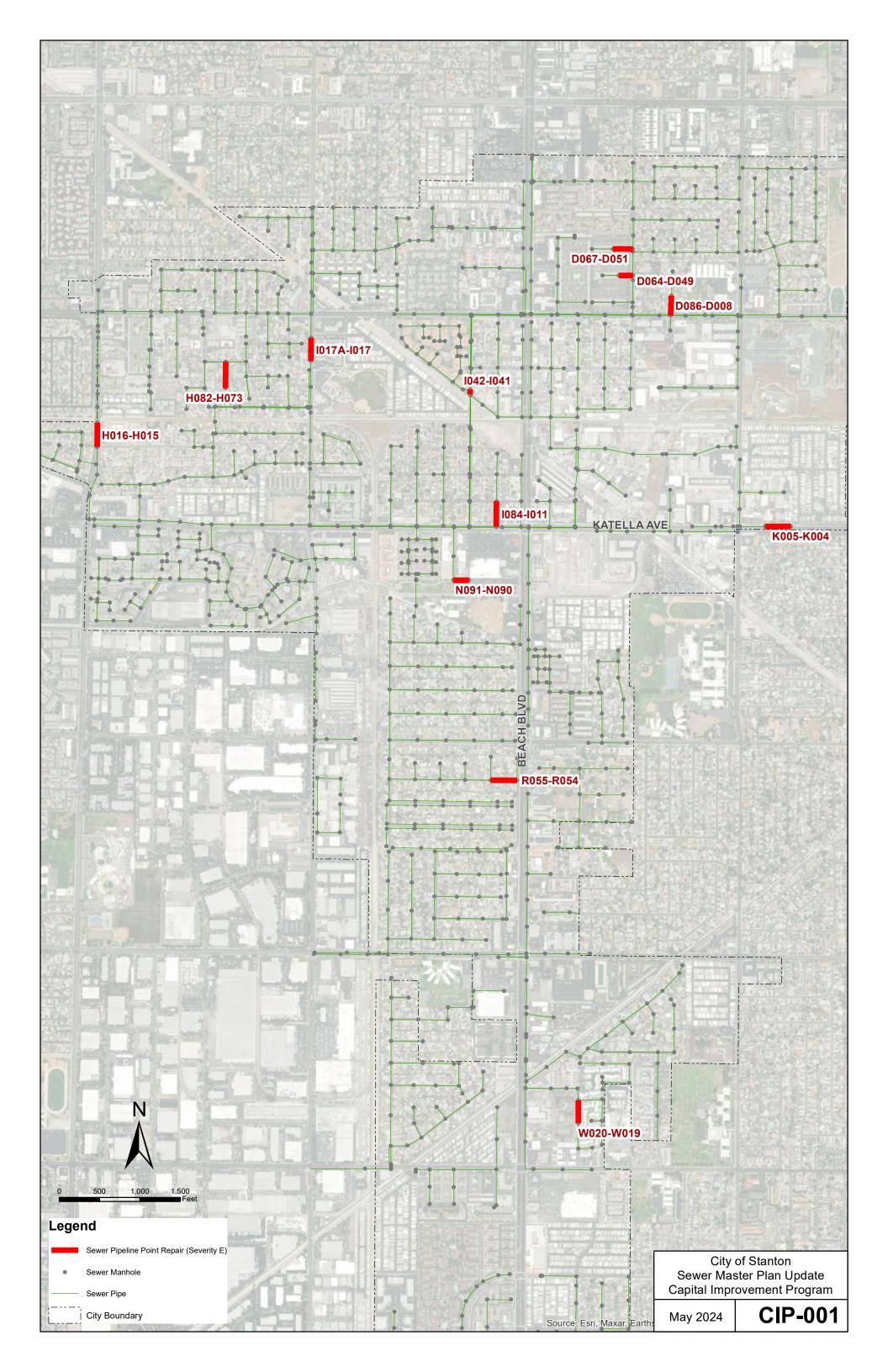
^{**} Garden Grove Sewer not shown on City GIS or Figures

Appendix 7 - Capital Improvement Program (CIP) Projects

Description: Sewer Point Repair Program (Severity E)

		Pipe			Conditi	on Assessment	
Pipe ID	Location	Diameter (inch)	Material	Defect(s)	Severity	Preliminary Recommendation	Quantity
D064-D049	Easement	8	VCP	Broken pipe	E	Point Repair	1
D067-D051	Easement	8	VCP	Broken pipe	E	Point Repair	1
D086-D008	Ashdale St	8	VCP	Joint Offsets	E	Point Repairs	2
H016-H015	Knott Ave	10	VCP	Mineral Deposit	E	Point Repair	1
H082-H073	Hamden Ave	8	VCP	Broken pipes	E	Point Repairs	2
I017A-I017	Western Ave	15	VCP	Infiltration	E	Point Repair	1
1042-1041	Rose St-Easement	12	VCP	Broken pipe	E	Point Repair	1
1084-1011	Flower St	8	VCP	Broken pipe	E	Point Repair	1
K005-K004	Katella Ave	8	VCP	Broken pipe	E	Point Repair	1
N091-N090	Cedar & Katella	8	VCP	Broken pipe	E	Point Repairs	2
R055-R054	Stanton Ave	8	VCP	Broken pipe	E	Point Repair	1
W020-W019	San Marcos Dr	8	VCP	Broken pipe	E	Point Repair	1

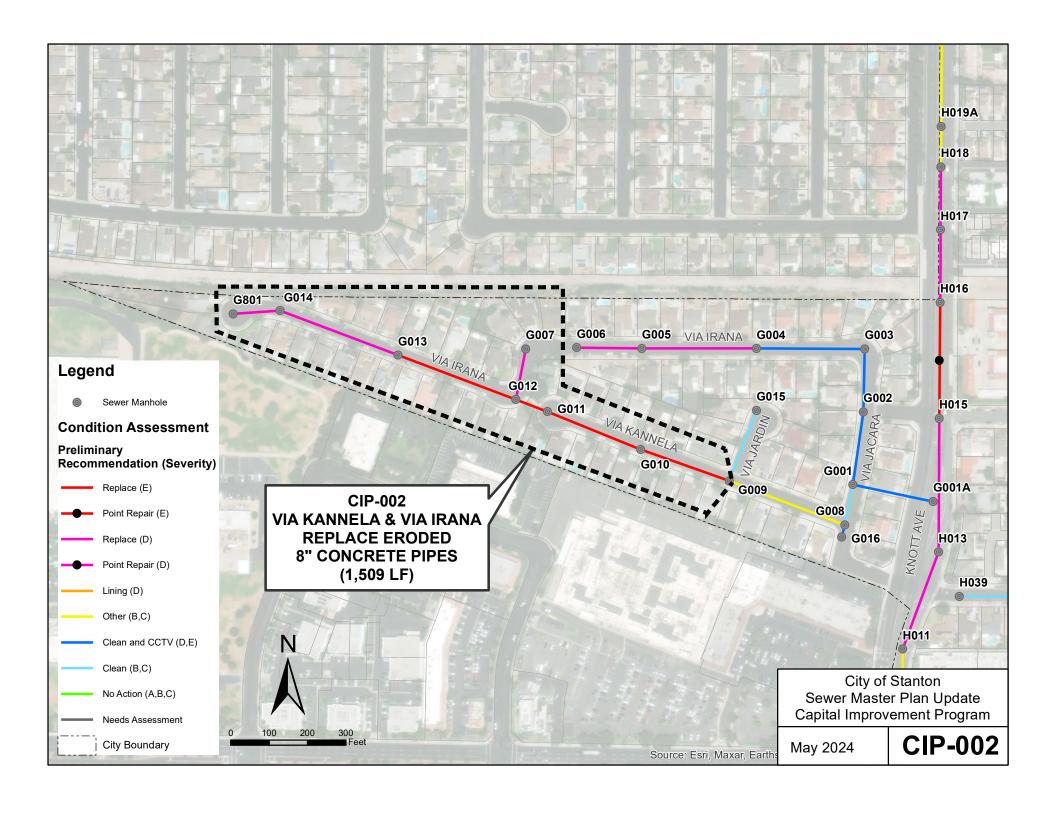
Point Repairs	Unit Cost Point Repair						
15	\$ 25,000.00						
Preliminary Construction Cost Opinon (Rounded, \$2024)							
\$380,000							



Description: Replace 8" concrete sewer pipes (1,509 LF)

		Pipe		Con	dition Assess	sment	ole I a sail	
Pipe ID	Location	Diameter (inch)	Material	Defect(s)	Severity	Preliminary Recommendation	GIS Length (feet)	Manholes
G010-G009	Via Kannela	8	Concrete	Erosion	E	Replace	245	2
G011-G010	Via Kannela	8	Concrete	Erosion	E	Replace	261	1
G012-G011	Via Irana, Via Kannela	8	Concrete	Erosion	E	Replace	89	1
G013-G012	Via Irana	8	Concrete	Erosion	E	Replace	328	1
G014-G013	Via Irana	8	Concrete	Erosion	D	Replace	329	1
G801-G014	Via Irana	8	Concrete	Erosion	D	Replace	122	1
G007-G012	Via Irana	8	Concrete	Erosion	D	Replace	135	1

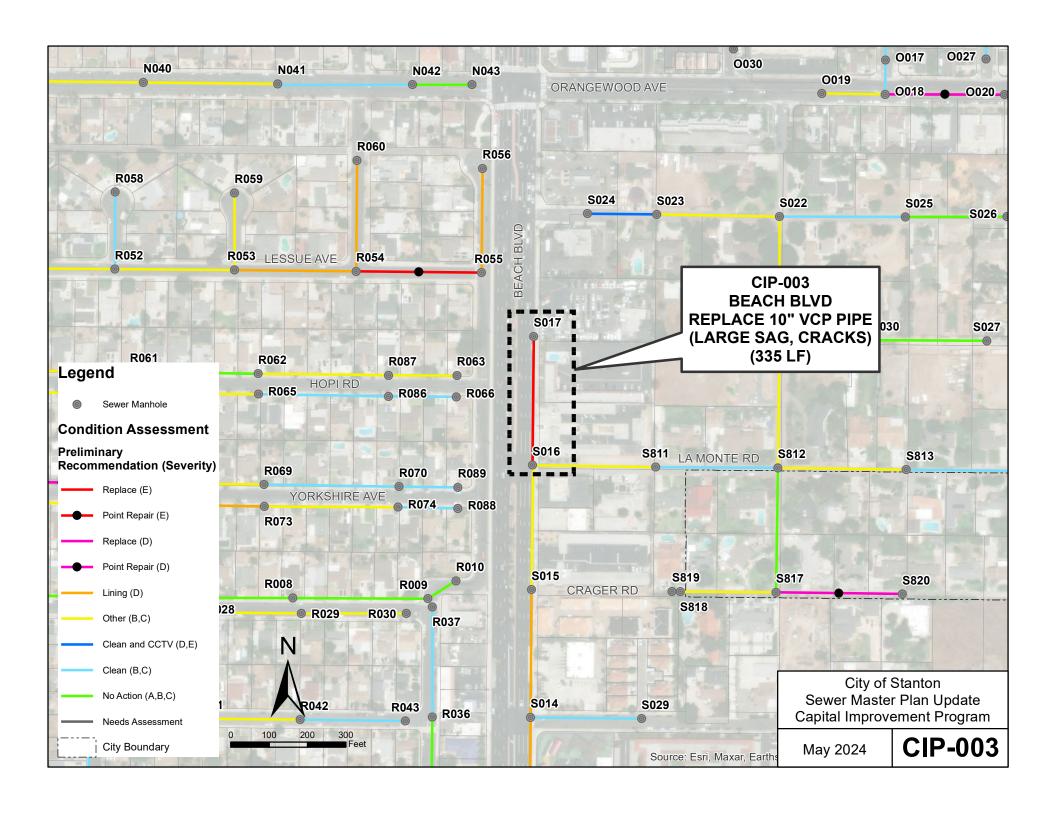
Total Length (feet)	Total Manholes	U	nit Cost Pipe	Unit Cost Manhole				
1509	8		550.00	\$25,000				
Р	Preliminary Construction Cost Opinon (Rounded, \$2024)							
\$1,030,000								



Description: Replace 10" VCP sewer pipe (335 LF)

		Pipe		Condition Assessment		CIC Longth		
Pipe ID	Location	Diameter (inch)	Material	Defect(s)	Severity	Preliminary Recommendation	GIS Length (feet)	Manholes
S017-S016	Beach Blvd	10	VCP	Sag, Cracks	E	Replace	335	2

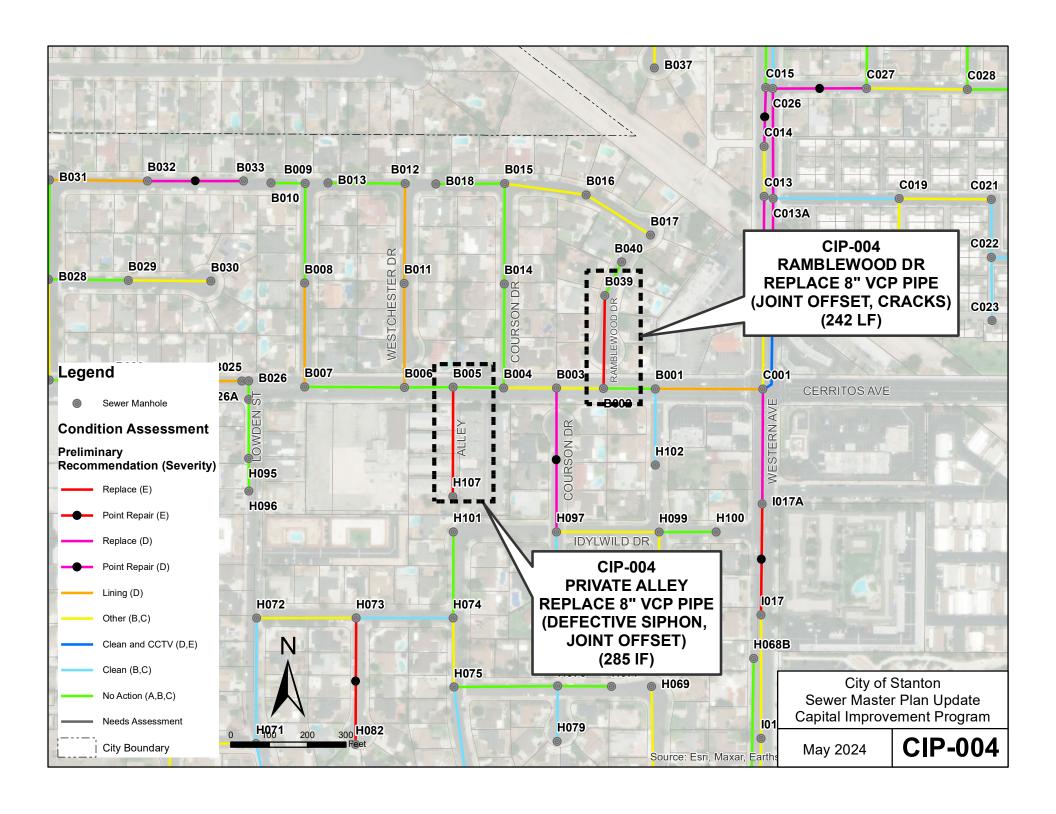
Le	Total ength feet)	Total Manholes	U	nit Cost Pipe	Unit Cost Manhole			
	335 2		\$ 650.00		\$25,000			
	Preliminary Construction Cost Opinon (Rounded, \$2024)							
		\$270,00	00					



Description: Replace 8" VCP sewer pipes (527 LF)

		Pipe		Cond	ition Assess	ment	CICI amath	
Pipe ID	Location	Diameter (inch)	Material	Defect(s)	Severity	Preliminary Recommendation	GIS Length (feet)	Manholes
B039-B002	Ramblewood Dr, Cerritos Ave	8	VCP	Cracks, Broken Pipes, Joint Offset	Е	Replace	242	2
H107-B005	Alley, Cerritos Ave	8	VCP/Other	Defective siphon, Grease, Joint Offset	E	Replace	285	2

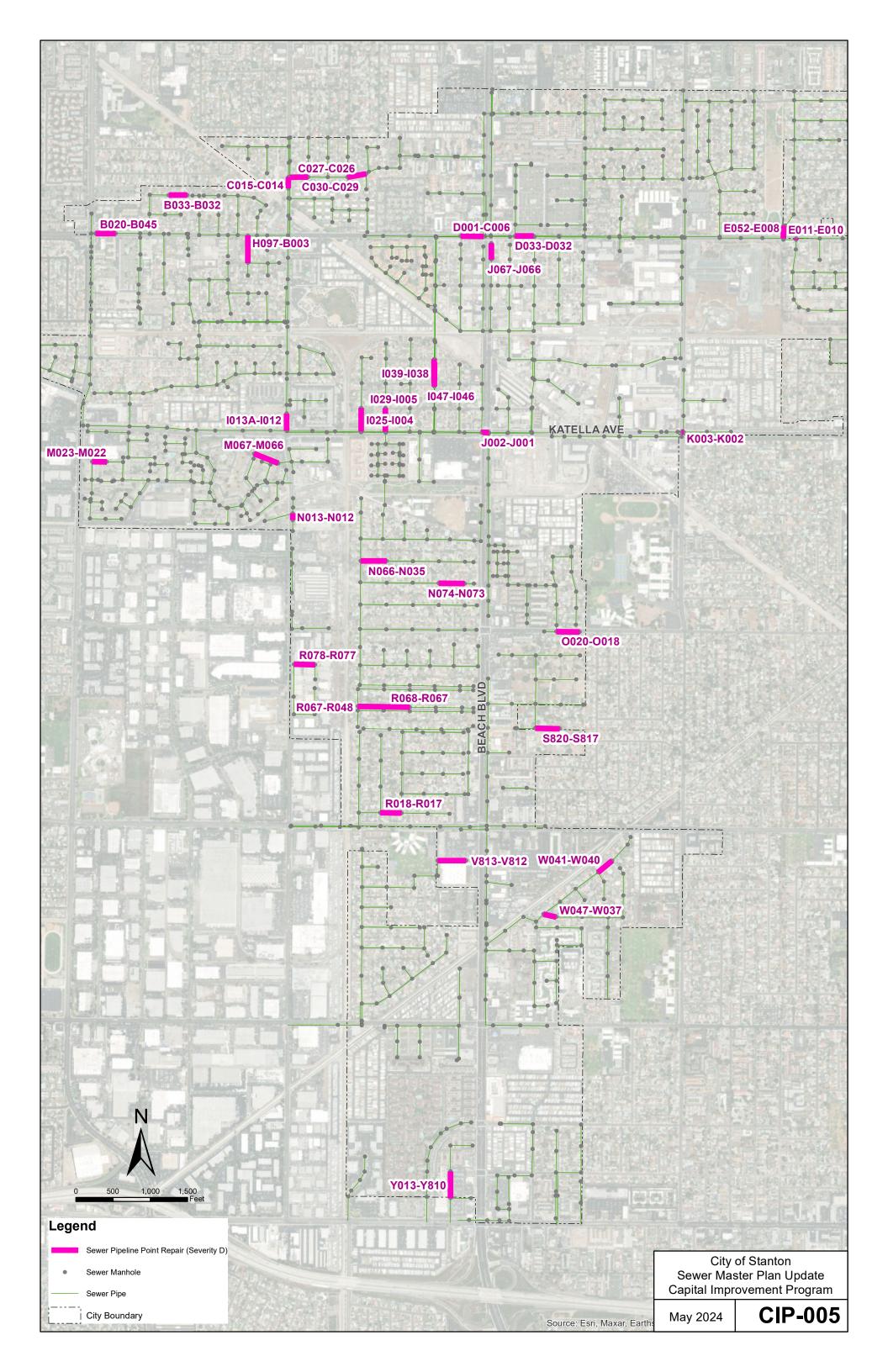
Total Length (feet)	Total Manholes	U	nit Cost Pipe	Unit Cost Manhole		
527 4		\$ 550.00		\$25,000		
Preliminary Construction Cost Opinon (Rounded, \$2024)						
	\$390,0	00				



Description: Sewer Point Repair Program (Severity D)

		Pipe			on Assessment	essment		
Pipe ID	Location	Diameter (inch)	Material	Defect(s)	Severity	Preliminary Recommendation	Quantity	
B020-B045	Cerritos Ave	8	VCP	Broken pipe	D	Point Repair	1	
B033-B032	Grandoaks Dr	8	VCP	Broken pipe	D	Point Repair	1	
C015-C014	Western Ave	12	VCP	Broken pipe	D	Point Repair	1	
C027-C026	Cody Dr	8	VCP	Joint offset	D	Point Repair	1	
C030-C029	Cody Dr	8	VCP	Broken pipe	D	Point Repair	1	
D001-C006	Cerritos Ave	12	VCP	Broken pipe	D	Point Repairs	2	
D033-D032	Cerritos Ave	12	VCP	Infiltration	D	Point Repairs	2	
E011-E010	Cerritos Ave	8	VCP	Broken pipe	D	Point Repair	1	
E052-E008	Alley	8	VCP	Broken pipe	D	Point Repair	1	
H097-B003	Courson Dr	8	VCP	Lateral Intrusion	D	Point Repair	1	
I013A-I012	Western Ave	15	VCP	Broken pipe	D	Point Repair	1	
1025-1004	Date St	8	VCP	Broken pipe	D	Point Repair	1	
1029-1005	Oak St	8	VCP	Broken pipe	D	Point Repair	1	
1039-1038	Rose St	12	VCP	Broken pipe	D	Point Repair	1	
1047-1046	Rose St	12	VCP	Broken pipe	D	Point Repair	1	
J002-J001	Katella Ave	10	VCP	Broken pipe	D	Point Repair	1	
J067-J066	Beach Blvd	8	VCP	Broken pipe	D	Point Repairs	2	
K003-K002	Katella Ave	8	VCP	Broken pipe	D	Point Repair	1	
M023-M022	Auburn Way	8	VCP	Joint offset	D	Point Repair	1	
M067-M066	Easement	8	VCP	Broken pipe	D	Point Repair	1	
N013-N012	Western Ave	8	VCP	Broken pipe	D	Point Repairs	2	
N066-N035	Joel Ave	8	VCP	Joint offset	D	Point Repair	1	
N074-N073	Eileen St	8	VCP	Broken pipe	D	Point Repair	1	
O020-O018	Orangewood Ave	8	VCP	Broken pipe	D	Point Repairs	2	
R018-R017	Santa Gertrudes Ave	8	VCP	Broken pipe	D	Point Repair	1	
R067-R048	Yorkshire Ave	8	VCP	Joint offset	D	Point Repair	1	
R068-R067	Yorkshire Ave	8	VCP	Joint offset	D	Point Repair	1	
R078-R077	Seaboard Cir	8	VCP	Broken pipe	D	Point Repair	1	
S820-S817	Crager Ln	8	VCP	Broken pipe	D	Point Repair	1	
V813-V812	Home Depot Parking Lot	8	PVC-VCP	Broken pipe	D	Point Repair	1	
W041-W040	Briarwood St	8	VCP	Broken pipe	D	Point Repair	1	
W047-W037	Winterwood Ave	8	VCP	Broken pipe	D	Point Repair	1	
Y013-Y810	Beach Blvd	8	VCP	Broken pipe	D	Point Repair	1	

Point Repairs	Unit Cost Point Repair			
38	\$ 25,000.00			
Preliminary Construction Cost Opinon (Rounded, \$2024)				
\$950,000				



CIP Project: CIP-006

Description: Sewer Pipeline Replacement and Rehabilitation Program (Severity D)

		Pipe		Condition Assessment			
Pipe ID	Location	Diameter (inch)	Material	Defect(s)	Severity	Preliminary Recommendation	GIS Length (feet)
B008-B007	Oakhaven Dr	8	VCP	Cracks, Broken pipe	D	Lining	270
B011-B006	Westchester Ave	8	VCP	Broken pipes	D	Lining	271
B012-B011	Westchester Ave	8	VCP	Cracks	D	Lining	260
B024-B023	Cerritos Ave	8	VCP	Cracks	D	Lining	66
B025-B024	Cerritos Ave	8	VCP	Cracks	D	Lining	244
B032-B031	Grandoaks Dr	8	VCP	Cracks	D	Lining	256
C040-C029	Courtright St	8	VCP	Crack	D	Lining	272
C051-C011	1st St	8	VCP	Roots	D	Lining	157
C055-C024	Rutgers Wy	8	VCP	Roots	D	Lining	139
D090-D001	Beach Blvd	8	VCP	Cracks	D	Lining	18
E057-E056	Kennelly Ln	8	VP	Roots, Lateral Intrustion	D	Lining	363
J016-K002	Katella Ave	8	VCP	Cracks	D	Lining	53
J077-J076	Sycamore Ave	8	VCP	Blocked	D	Lining	199
L805-L804	Pacific Ave	8	VCP	Cracks	D	Lining	322
N060-N059	Ruthann Ave	8	VCP	Cracks, Broken pipes	D	Lining	324
N064-N034	Santa Rosalia	8	VCP	Cracks	D	Lining	352
N065-N064	Santa Rosalia	8	VCP	Cracks	D	Lining	192
N067-N066	Joel Ave	8	VCP	Cracks, Broken pipes, Joint Offset	D	Lining	352
N068-N067	Joel Ave	8	VCP	Cracks	D	Lining	349
N069-N068	Joel Ave	8	VCP	Cracks, Broken pipes	D	Lining	350
N075-N074	Eileen St	8	VCP	Cracks	D	Lining	121
N077-N076	Davmor Ave	8	VCP	Cracks, Broken pipes, Joint Offset	D	Lining	351
N079-N078	Davmor Ave	8	VCP	Cracks	D	Lining	348
O003-O002	Beach Blvd	8	VCP	Cracks	D	Lining	340
0013-0012	Plaza Way	8	VCP	Roots	D	Lining	117
O028-O023	Pine Tree	8	VCP	Roots	D	Lining	135
R054-R053	Lessue Ave	8	VCP	Cracks	D	Lining	317
R056-R055	Stanton Ave	8	VCP	Roots, Cracks, Broken Pipe	D	Lining	271
R060-R054	Lenmar St	8	VCP	Cracks	D	Lining	289
R073-R072	Yorkshire Ave	8	VCP	Roots	D	Lining	352
V002-OC03	Lampson Ave	8	VCP	Infiltration	D	Lining	41
V022-V007	Bently Ave	8	VCP	Cracks, Broken pipes, Joint Offset	D	Lining	391
Z017-Z016	Fern St	8	VCP	Cracks	D	Lining	290
B001-C001	Cerritos Ave	10	VCP	Cracks	D	Lining	280
R050-R049	Santa Rosalia St	10	VCP	Roots, Broken Pipe	D	Lining	220
S014-S013	Beach Blvd	10	VCP	Cracks	D	Lining	320
S015-S014	Beach Blvd	10	VCP	Cracks	D	Lining	332
W015-W014	Beach Blvd	10	VCP	Cracks	D	Lining	334
C006-C004	Cerritos Ave	12	VCP	Cracks	D	Lining	338
1002-1001	Katella Ave	12	VCP	Infiltration	D	Lining	344
1003-1002	Katella Ave	12	VCP	Infiltration	D	Lining	300
1004-1003	Katella Ave	12	VCP	Infiltration	D	Lining	352
1009-1008	Katella Ave	12	VCP	Cracks	D	Lining	184
1021-1006	Katella Ave	12	VCP	Broken pipe	D	Lining	11
J004-J015	Katella Ave	12	VCP	Broken pipe	D	Lining	7
N036-N035	Santa Rosalia	12	VCP	Cracks, Broken Pipe	D	Lining	291
14020-14033	Chapman Ave	15	VCP	Infiltration	D	Lining	397

CIP Project: CIP-006

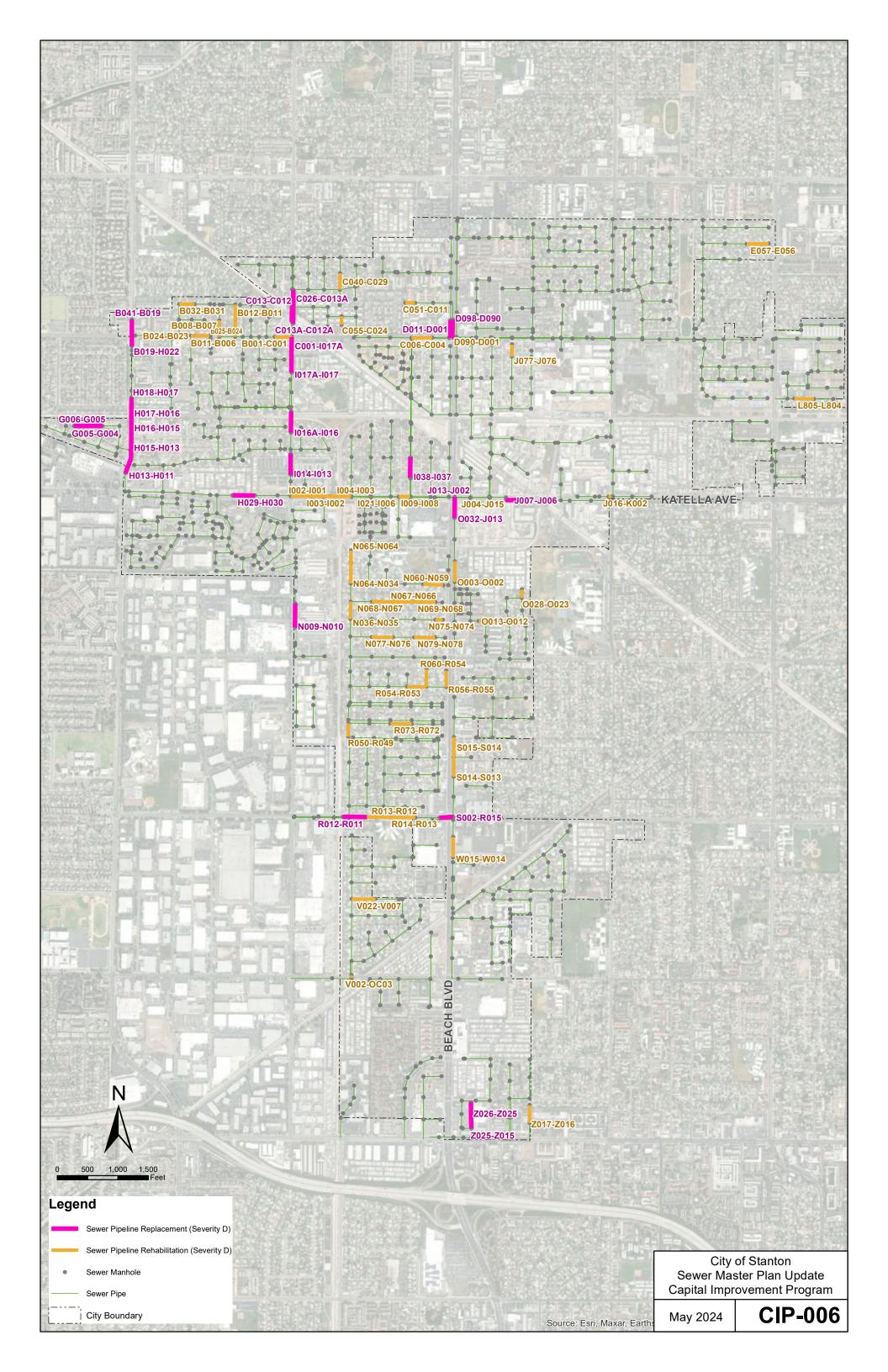
Description: Sewer Pipeline Replacement and Rehabilitation Program (Severity D)

		Pipe		Condition Assessment			
Pipe ID	Location	Diameter (inch)	Material	Defect(s)	Severity	Preliminary Recommendation	GIS Length (feet)
R014-R013	Chapman Ave	15	VCP	Infiltration	D	Lining	404
Z025-Z015	Garden Grove Blvd	6	PVC	Joint Offset, Flow Capacity	D	Replace	69
Z026-Z025	Garden Grove Blvd	6	PVC	Sag, Flow Capacity	D	Replace	362
G005-G004	Via Irana	8	Concrete	Erosion	D	Replace	298
G006-G005	Via Irana	8	Concrete	Erosion	D	Replace	170
J013-J002	Katella Ave	8	VCP	Joint Offset	D	Replace	8
N009-N010	Western Ave	8	VCP	Sag	D	Replace	397
O032-J013	Beach Blvd	8	VCP	Sag	D	Replace	341
B019-H022	Knott Ave	10	VCP	Sag	D	Replace	177
B041-B019	Knott Ave	10	VCP	Joint Offset	D	Replace	262
D011-D001	Beach Blvd	10	VCP	Sag, Broken Pipe	D	Replace	291
D098-D090	Beach Blvd	10	VCP	Sag	D	Replace	302
H013-H011	Knott Ave	10	VCP	Sag	D	Replace	269
H015-H013	Knott Ave	10	VCP	Deposits	D	Replace	348
H016-H015	Knott Ave	10	VCP	Deposits	D	Replace	301
H017-H016	Knott Ave	10	VCP	Deposits, Sag	D	Replace	190
H018-H017	Knott Ave	10	VCP	Deposits	D	Replace	164
H029-H030	Katella Ave	10	VCP	Sag	D	Replace	370
J007-J006	Katella Ave	10	VCP	Sag	D	Replace	168
C013A-C012A	Western Ave	12	VCP	Sag, Flow Capacity	D	Replace	274
C013-C012	Western Ave	12	VCP	Sag	D	Replace	240
C026-C013A	Western Ave	12	VCP	Sag	D	Replace	286
1038-1037	Rose St	12	VCP	Sag	D	Replace	336
C001-I017A	Western Ave	15	VCP	Infiltration, Sag	D	Replace	299
1014-1013	Western Ave	15	VCP	Sag	D	Replace	352
I016A-I016	Western Ave	15	VCP	Sag	D	Replace	350
I017A-I017	Western Ave	15	VCP	Infiltration	D	Replace	289
R012-R011	Chapman Ave	15	VCP	Sag	D	Replace	399
S002-R015	Chapman Ave	15	VCP	Sag	D	Replace	226

Pipe Diameter (inch)	Total Lengths (ft)	Unit Cost Pipe Replacement or Rehabilitation	Cost
8" Pipe Replacement	1,645	\$ 550	\$ 904,750
10" Pipe Replacement	2,842	\$ 650	\$ 1,847,300
12" Pipe Replacement	1,136	\$ 750	\$ 852,000
15" Pipe Replacement	1,915	\$ 900	\$ 1,723,500
subtotal	7,538		
8" Pipe Rehabilitation (Lining)	8,172	\$ 200	\$ 1,634,400
10" Pipe Rehabilitation (Lining)	1,486	\$ 225	\$ 334,350
12" Pipe Rehabilitation (Lining)	1,827	\$ 250	\$ 456,750
15" Pipe Rehabilitation (Lining)	801	\$ 300	\$ 240,300
subtotal	12,286		

Note: Manhole replacement/rehabilitation costs are not included

Preliminary Construction Cost Opinon
(Rounded, \$2024)
\$8,000,000

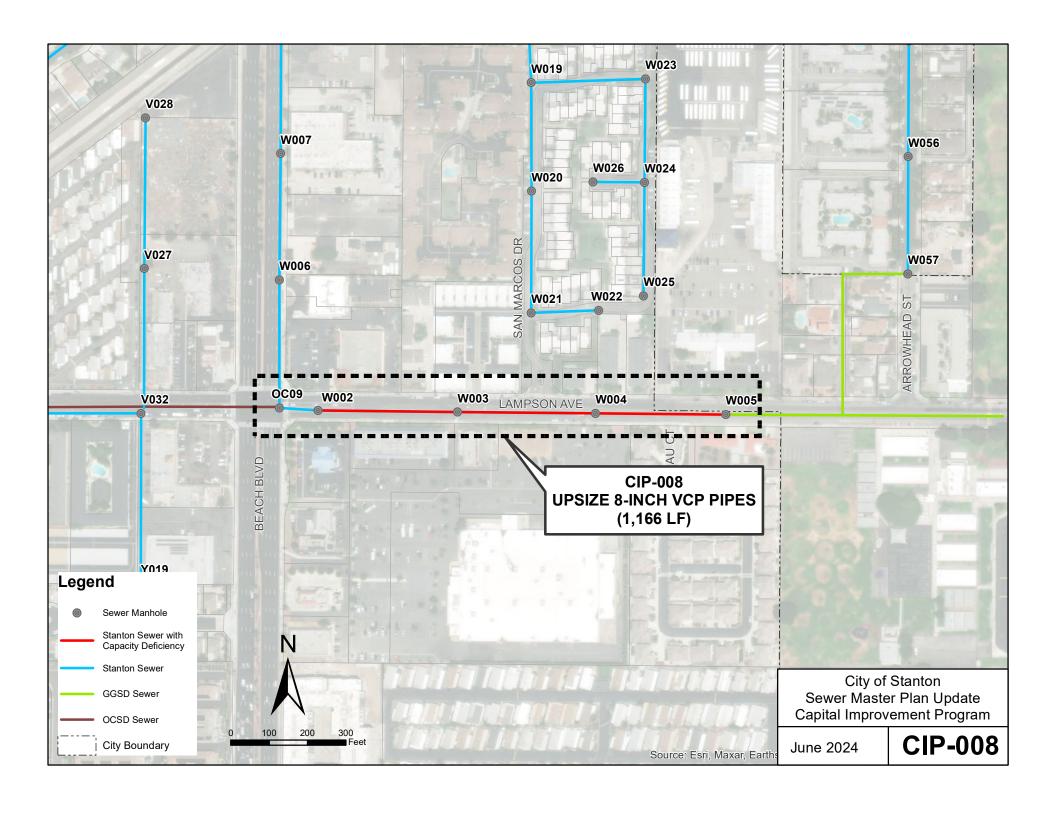


CIP Project: CIP-008

Description: Upsize 1,166 LF of 8" VCP sewer pipes (Capacity Deficiency)

Pipe ID	Location	Existing Diameter (inch)	Material	Proposed Diameter (inch)	GIS Length (feet)	Manholes
W002-OC09	Lampson Ave	8	VCP	12	104	2
W003-W002	Lampson Ave	8	VCP	12	364	1
W004-W003	Lampson Ave	8	VCP	12	360	1
W005-W003	Lampson Ave	8	VCP	12	338	1

Total Length (feet)	Total Manholes	Unit Cost Pipe		Unit Cost Manhole			
1166	5	\$	750.00	\$25,000			
Preliminary Construction Cost Opinon (Rounded, \$2024)							
\$1,000,000							



Appendix 8 – Projected Capital Improvement Program (CIP) Expenditures

Projected Capital Improvement Program (CIP) Expenditures by Fiscal Year

CIP No.	Street	Description	Phase	Fiscal Year				Total						
CIP NO.	Street	Description	Pilase	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	Total
CIP-001	Various	Sewer Point Repair Program	Design	\$ 70,000										\$ 600,000
CII -001	Various	(Severity E)	Construction	\$ 530,000										3 000,000
CIP-002	Via Kannela,	Replace 1,509 LF of 8" concrete	Design		\$ 180,000									\$ 1,600,000
CIP-002	Via Irana	sewer pipes (Severity E)	Construction		\$ 1,420,000									5 1,600,000
CIP-003	Beach	Replace 335 LF of 10" VCP sewer	Design			\$ 50,000								\$ 420,000
CIF-003	Boulevard	pipe (Severity E)	Construction			\$ 370,000								420,000
CIP-004	Cerritos	Replace 527LF of 8" VCP sewer	Design			\$ 70,000								\$ 600,000
CIF-004	Avenue pip	pipes (Severity E)	Construction			\$ 530,000								\$ 000,000
CIP-005	Various	Sewer Point Repair Program	Design					\$ 170,000						\$ 1,480,000
CIF-003	various	(Severity D)	Construction					\$ 1,310,000						3 1,480,000
CIP-006	Various	Sewer Pipeline Replacement and Rehabilitation Program	Design						\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 12,500,000
CIP-006	various	(Severity D)	Construction						\$ 2,200,000	\$ 2,200,000	\$ 2,200,000	\$ 2,200,000	\$ 2,200,000	\$ 12,300,000
CID 007	Various	Sewer Manhole Replacement and	Design						\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 1,700,000
CIP-007	CIP-007 Various	Rehabilitation Program	Construction						\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	5 1,700,000
CIP-008	CID OOG Lampson	Upsize 1,166 LF of 8" VCP sewer	Design				\$ 200,000							\$ 1,600,000
CIF-008	Avenue	pipes (Capacity Deficiency)	Construction				\$ 1,400,000							٦,000,000
	·	·	Total	\$ 600,000	\$ 1,600,000	\$ 1,020,000	\$ 1,600,000	\$ 1,480,000	\$ 2,840,000	\$ 2,840,000	\$ 2,840,000	\$ 2,840,000	\$ 2,840,000	\$ 20,500,000









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Item: 12B

Click here to return to the agenda.

CITY OF STANTON

REPORT TO THE CITY COUNCIL

TO: Honorable Mayor and Members of the City Council

DATE: July 9, 2024

SUBJECT: SECOND AMENDMENT TO CITY MANAGER EMPLOYMENT

AGREEMENT, APPROPRIATION OF FUNDS, RESOLUTION REGARDING AMENDMENT TO SALARY RATES, AND

APPROPRIATION OF FUNDS

REPORT IN BRIEF:

For consideration is the Second Amendment to the Employment Agreement between the City and Hannah Shin-Heydorn regarding the position of City Manager. If the amendment is approved, then the City Council should accordingly approve an appropriation of \$22,505 and the City's salary rates resolution should also be amended.

RECOMMENDED ACTIONS:

- 1. City Council declare that the project is exempt from the California Environmental Quality Act ("CEQA") under Section 15378(b)(2) continuing administrative or maintenance activities, such as purchase of supplies, personnel-related actions, general policy, and procedures making, and
- 2. Authorize the Mayor to approve and execute the Second Amendment to Employment Agreement with Hannah Shin-Heydorn; and
- 3. Appropriate \$19,130 from the General Fund (#101) available fund balance and \$3,375 from the Housing Authority Fund (#285) available fund balance for Fiscal Year 2024/25; and
- 4. Adopt Resolution No. 2024-27 amending the Salary Rates, entitled:

"A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF STANTON, CALIFORNIA, REGARDING EMPLOYEE BENEFITS AND SALARY RATES FOR ALL CLASSES OF EMPLOYMENT."

BACKGROUND AND ANALYSIS/JUSTIFICATION:

On June 28, 2022, the City Council approved an Employment Agreement ("Agreement") to retain Hannah Shin-Heydorn as City Manager. In July 2023, following a positive evaluation, the Council approved an amendment to the Agreement for a salary increase and a benefit update. Recently, the City Council completed Mrs. Shin-Heydorn's annual review and performance evaluation pursuant to the terms of the Agreement. As a result of a positive evaluation, increases in the cost of living, and to further incentive Ms. Shin-Heydorn to continue employment with the City, the Council authorized a six percent COLA (cost of living adjustment) increase and a seven percent merit-based increase in her base salary. If approved, the new annual salary of \$275,494 would take effect July 1, 2024.

Additionally, the City Council authorized an increase to the monthly cell phone allowance for Ms. Shin-Heydorn in the amount of one hundred dollars (\$100) for a total cell phone allowance of two hundred dollars (\$200) per month. The City is also proposing minor changes to Section 11 of the Agreement, Comprehensive Leave, for clerical edits to provide clarity to the amount of leave allowed. The clerical changes do not alter previously agreed-upon amounts.

In addition to memorializing these changes in the City Manager's contract (Attachment 1), salary related changes would also be documented in the City's amended employee rates resolution. (Attachment 3.)

FISCAL IMPACT:

The proposed amendment increases the Fiscal Year 2024/25 cost for the City Manager position by approximately \$22,505. This position is funded by the General Fund (#101) and the Housing Authority Fund (#285). Staff is requesting a total appropriation of \$22,505 for the Fiscal Year 2024/25 budget to be funded from the General Fund (\$19,130) and the Housing Authority Fund (\$3,375).

ENVIRONMENTAL IMPACT:

The project is exempt from the California Environmental Quality Act ("CEQA") under Section 15378(b)(2) - continuing administrative or maintenance activities, such as purchase of supplies, personnel-related actions, general policy, and procedures making.

LEGAL REVIEW:

The City Attorney has prepared this item.

PUBLIC NOTIFICATION:

Public notice for this item was made through the normal agenda process.

Prepared by: HongDao Nguyen, City Attorney

Reviewed by: Cynthia Guzman, Human Resources Manager Fiscal Impact Reviewed by: Michelle Bannigan, Finance Director

Attachments:

A. Proposed Second Amendment to Employment Agreement

B. Employment Agreement

C. Resolution No. 2024-27

Exhibit A: City Compensation Plan Salary Ranges

Exhibit B: Revised Monthly Salary Schedule

SECOND AMENDMENT TO EMPLOYMENT AGREEMENT BETWEEN THE CITY OF STANTON AND HANNAH SHIN-HEYDORN

THIS SECOND AMENDMENT TO EMPLOYMENT AGREEMENT (the "Second Amendment") is made and entered into effective July 9, 2024 between the CITY OF STANTON, a municipal corporation ("City") and HANNAH SHIN-HEYDORN ("Shin-Heydorn") as follows:

WHEREAS, City and Shin-Heydorn entered into that certain Employment Agreement to employ the services of Shin-Heydorn as City Manager of City dated June 28, 2022 ("Agreement"); and

WHEREAS, City and Shin-Heydorn executed a first amendment to that certain Employment Agreement (the "First Amendment") to continue employing the services of Shin-Heydorn as City Manager of City dated June 22, 2023; and

WHEREAS, it is the desire of the City Council of the City ("Council"), to secure and maintain the services of Shin-Heydorn and to provide inducement for her continued employment; and

WHEREAS, City and Shin-Heydorn now desire to amend the Agreement in order to increase the compensation amount, increase the monthly cell phone allowance, and revise past comprehensive leave language to meet the parties' prior intentions, pursuant to Sections 4, 6, and 11 of the Agreement.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, City and Shin-Heydorn agree as follows:

<u>Section 1 — Salary.</u> Section 4 of the Agreement is hereby amended in its entirety and restated to read as follows:

"As of July 18, 2022, the City agrees to pay Shin-Heydorn for her services rendered pursuant hereto a monthly base salary of Nineteen Thousand One Hundred and Sixty Seven Dollars (\$19,167.00), payable in installments at the same time as other employees of City are paid. In addition, by July 1, 2023, City agrees to increase her base salary by six (6) percent pending a satisfactory performance evaluation, as set forth in Section 14 of this Agreement. In addition, by July 1, 2024, City agrees to increase her base salary by six (6) percent for a COLA adjustment and by seven (7) percent for a merit adjustment for a revised base salary of Two Hundred Seventy Five Thousand Four Hundred and Ninety Four Dollars (\$275,494.00) pending a satisfactory performance evaluation, as set forth in Section 14 of this Agreement.

During Shin-Heydorn's first three years of employment, she will not be entitled to receive the cost of living increases (COLAs) provided to other employees. On her Anniversary Date, following the first three years of full employment, City will consider potential increases to Shin-Heydorn's salary (including COLAs) based on performance, comparative salaries and the finances of the City. Shin-Heydorn's compensation may not be reduced during the term of this Agreement, except that if the Council finds it necessary to reduce salaries of all Department head level employees, Shin-Heydorn's salary may be reduced by no more than the average salary reduction of Department head level employees. A reduction of Shin-Heydorn's salary by an amount in excess of this will be

considered a termination of Shin-Heydorn's employment without cause, unless Shin-Heydorn specifically agrees to the modification in writing."

<u>Section 2 — Telephone.</u> Section 6 of the Agreement is hereby amended in its entirety and restated to read as follows:

"Section 6 — Automobile/Telephone

The City agrees to pay to the Shin-Heydorn two hundred dollars (\$200.00) per month as a cellular telephone allowance, which shall be paid in equal installments in each pay period.

The City also agrees that upon proof of insurance coverage in an amount acceptable to the City, the City shall provide Shin-Heydorn with a Four Hundred Dollar (\$400) monthly automobile allowance. Shin-Heydorn agrees to adhere to all laws, regulations, and City policies applicable to vehicles, driving, or traffic when operating her vehicle on City-related business."

<u>Section 3 — Comprehensive Leave.</u> Section 11 of the Agreement is hereby amended in its entirety and restated to read as follows:

"In lieu of sick, vacation, administrative, or any other paid leave, Shin-Heydorn shall accrue annually up to a maximum of four hundred and eighty (480) hours of comprehensive leave. The City shall provide an initial balance of four hundred and eighty (480) hours on July 2, 2023. On June 30 of each year, Shin-Heydorn shall be paid, at the then current rate of pay, for all unused accumulated comprehensive leave up to a maximum of two hundred and seventy five (275) hours. After any such sell back of comprehensive leave under the previous sentence, any unused accumulated comprehensive leave remaining shall be carried forward to the following year. On July 1 of each year, the total amount of comprehensive leave available to Shin-Heydorn shall be replenished to reach the maximum comprehensive leave accumulation limit of four hundred and eighty (480) hours.

In the event that Shin-Heydorn voluntarily leaves the employ of the City, she shall receive in her final pay all accumulated but unused comprehensive leave at the then current rate of pay."

<u>Section 4 — Remaining Terms</u>. Unless a provision is amended as provided herein, all remaining terms of the Agreement shall continue to remain in force and effect.

[Signatures on following page]

SECOND AMENDMENT TO EMPLOYMENT AGREEMENT BETWEEN THE CITY OF STANTON AND HANNAH SHIN-HEYDORN

IN WITNESS WHEREOF, City and Shin-Heydorn have executed this Second Amendment as of the day and year first written above.

CITY OF STANTON	EMPLOYEE
David J. Shawver, Mayor	Hannah Shin-Heydorn, City Manager
ATTEST:	
Patricia A. Vazquez, City Clerk	
APPROVED AS TO FORM	
Best Best & Krieger, LLP	

EMPLOYMENT AGREEMENT BETWEEN THE CITY OF STANTON AND HANNAH SHIN-HEYDORN

THIS EMPLOYMENT AGREEMENT (the "Agreement") is made and entered into effective June 28, 2022 between the CITY OF STANTON, a municipal corporation ("City") and HANNAH SHIN-HEYDORN ("Shin-Heydorn") as follows:

WHEREAS, City desires to employ the services of Shin-Heydorn as City Manager of City, as provided by the City Municipal Code, and

WHEREAS, it is the desire of the City Council of the City ("Council"), to provide certain benefits, establish certain conditions of employment and to set working conditions of Shin-Heydorn, and

WHEREAS, it is the desire of the Council to (1) secure and retain the services of Shin-Heydorn and to provide inducement for her to remain in such employment, (2) to make possible full work productivity by assuring Shin-Heydorn's morale and peace of mind with respect to future security, and (3) to provide a means of terminating Shin-Heydorn's services if City may desire to terminate her employ; and

WHEREAS, Shin-Heydorn desires to accept employment, on an at-will basis, as City Manager of City.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, the parties agree as follows:

Section 1 — Employment

City hereby agrees to employ Shin-Heydorn as City Manager to perform the functions and duties specified in the City Municipal Code and the Government Code of the State of California, and Shin-Heydorn agrees to accept such employment. Shin-Heydorn shall perform the duties and responsibilities imposed by law, industry standards, and responsibilities and duties as specified in Exhibit "A," and such legally permissible further duties and functions as shall, from time to time, be assigned by the Council.

Shin-Heydorn shall devote such time, interest, and effort to the performance of her duties as may be reasonably necessary to fulfill the above requirements. Shin-Heydorn agrees to perform such services to the best of her ability, in an efficient and competent manner consistent with the standards of the profession. Due to the nature of the City Manager position, it is understood that flexibility is required for Shin-Heydorn's work schedule at Shin-Heydorn's reasonable discretion. Without limiting the generality of the foregoing, Shin-Heydorn understands and agrees that the position is an exempt, salaried, full-time position with regular required office hours Monday through Thursday, and night and weekend hours, when in the best interests of the City.

Section 2 — Term

The Agreement shall be effective as of June 28, 2022, however, Shin-Heydorn's start date shall be July 18, 2022 (the "Anniversary Date") and shall continue unless terminated by the parties as set forth in the Agreement.



Section 3 — Termination and Severance Pay

A. By Shin-Heydorn

Shin-Heydorn may terminate this Agreement upon giving at least 30 days' written notice of resignation to City, or sooner by mutual agreement. In the event that Shin-Heydorn exercises her right to terminate this Agreement by giving at least 30 days' notice, or sooner by mutual agreement, Shin-Heydorn will not be entitled to the severance benefits as set forth below in this Agreement or to any other similar termination benefits under law or City rules or regulations, provided however, that Shin-Heydorn will be entitled to payment for work performed through her resignation date and accrued comprehensive leave, as set forth below, as well as any benefits required by applicable law. This Agreement shall automatically terminate upon Shin-Heydorn's death, retirement, or permanent incapacity (a disability or medical condition which cannot be reasonably accommodated by City and upon completion of any other legally required process), which effectively operate as a resignation.

B. By City

The Parties understand and agree that Shin-Heydorn, in her capacity as City Manager is "at-will" and serves at the pleasure of the Council, subject to termination pursuant to the terms of the Agreement without cause, and with no right to any hearing or appeal, including any "Skelly conference", other than the rights expressly provided in the Agreement. The City may terminate this Agreement, and Shin-Heydorn's employment either at-will or for cause, as set forth below, by a majority vote of the whole Council.

- 1. At-Will: City may terminate this Agreement, without cause and with or without notice. In the event that this Agreement is terminated without cause, Shin-Heydorn shall be entitled to severance benefits under this Agreement, consistent with the requirements as set for below in Paragraph 3, D. Shin-Heydorn may not be terminated under this provision for at-will termination by the City within ninety (90) days preceding or following a City General Municipal Election where one or more Council seats are contested on the ballot of such election (the "election cool-off period"). However, should Council determine by a majority vote of the whole Council to terminate Shin-Heydorn at-will (without cause) during the election cool-off period, Shin-Heydorn shall be entitled to the severance provided in Section 3(C) below, plus an addition one (1) months' severance, subject to the conditions for receiving severance set forth below,
- 2. For Cause Termination: City may terminate this Agreement "for cause" as defined below. Shin-Heydorn will not be entitled to severance if her employment is terminated by City at any time for cause. Cause for termination shall be defined for purposes of this Agreement as: (i) malfeasance, (ii) gross negligence, (iii) fraud, (iv) serious misconduct (substantiated through an independent investigation) which would constitute a violation of City policy, or state or federal law, (v) moral turpitude, or (vi) conviction of a felony on the part of Shin-Heydorn. Conviction for purposes of this Agreement includes a judgment entered after a trial, plea of guilty or plea of nolo contendere.



C. Severance: In the event that Shin-Heydorn's employment is terminated by Council without cause ("at-will"), during the term of this Agreement and while Shin-Heydorn is willing and able to perform the duties of City Manager, Shin-Heydorn shall be entitled to a lump sum cash settlement, equal to twelve (12) months' base pay, six (6) months of which will be paid by the City and the other six (6) months will be payable based on insurance coverage obtained by the City through the California Joint Powers Insurance Authority or similar City insurer, subject to the terms of that insurance. As set forth above, in Section 3(B)(1), if Shin-Heydorn is terminated during the election cool-off period, the amount of severance will be increased by one (1) month, for a total of thirteen (13) months' severance. The amount is calculated on base pay, exclusive of incentive or bonus pay, benefits and other non-cash remuneration, except health benefits which will be continued, at the same level of City contribution provided Department head level employees (and at the same coverage election as at the time of termination), for the same period as the severance or until Shin-Heydorn begins other employment, whichever occurs first. To receive severance, Shin-Heydorn must execute a Settlement Agreement and General Release satisfactory to the City. In the event Shin-Heydorn elects not to sign the Settlement Agreement and General Release, Shin-Heydorn will not be entitled to severance pay.

Shin-Heydorn will not be entitled to severance if her employment is terminated by the Council at any time for cause, or if Shin-Heydorn resigns, retires or cannot perform the essential functions of the position even with reasonable accommodations due to death, a medical condition or disability.

- D. General Waiver and Release: The promise and tender of payment to Shin-Heydorn, of any severance compensation payable herein, is in lieu of any damages which Shin-Heydorn might claim arising out of the termination of the employment relationship between the parties, including lost wages, breach of contract, express or implied, breach of covenant of good faith and fair dealing, emotional distress and anxiety, or any similar contractual and personal injury claims.
- E. Abuse of Office: Pursuant to Government Code section 53243, et seq., if Shin-Heydorn is convicted of a crime involving an abuse of her office or position, as defined below, all of the following shall apply upon final conviction: (1) if City Manager is provided with administrative leave pay pending an investigation, Shin-Heydorn shall be required to fully reimburse such amounts paid (2) if City, in its discretion, pays for the criminal legal defense of City Manager, Shin-Heydorn shall be required to fully reimburse such amounts paid; and (3) if this Agreement is terminated, any cash settlement related to the termination that Shin-Heydorn may receive from City shall be fully reimbursed to City. For purposes of this Section, "abuse of office or position" means either: (1) an abuse of public authority, including waste, fraud, and violation of the law under color of authority as those crimes are specifically defined under specific provision of California statute, or (2) a crime against public justice, including a crime described in Title 7 commencing with section 92 of the Penal Code or as specifically defined under separate provision of California statute.
- F. Shin-Heydorn hereby expresses her intent to remain as City Manager for a period of not less than three (3) years from the date of execution of this Agreement. Shin-Heydorn and Council agree that should Shin-Heydorn be offered other employment, she shall advise



Council of her intent to accept the offer and provide Council the opportunity to meet with her to discuss the offer and other matters as might be desirable by either party. In the event Shin-Heydorn voluntarily resigns her position with the City, Shin-Heydorn shall give City a minimum of thirty (30) days' written notice in advance, as set forth above.

Section 4 – Salary

As of July 18, 2022, the City agrees to pay Shin-Heydorn for her services rendered pursuant hereto a monthly base salary of nineteen thousand one hundred and sixty-seven dollars (\$19,167.00), payable in installments at the same time as other employees of City are paid. In addition, by July 1, 2023 and July 1, 2024, City agrees to increase her base salary by six (6) percent in each year pending a satisfactory performance evaluation, as set forth in Section 14 of this Agreement. During Shin-Heydorn's first three years of employment, she will not be entitled to receive the cost of living increases (COLAs) provided to other employees. On her Anniversary Date, following the first three years of full employment, City will consider potential increases to Shin-Heydorn's salary (including COLAs) based on performance, comparative salaries and the finances of the City. Shin-Heydorn's compensation may not be reduced during the term of this Agreement, except that if the Council finds it necessary to reduce salaries of all Department head level employees, Shin-Heydorn's salary may be reduced by no more than the average salary reduction of Department head level employees. A reduction of Shin-Heydorn's salary by an amount in excess of this will be considered a termination of Shin-Heydorn's employment without cause, unless Shin-Heydorn specifically agrees to the modification in writing.

Section 5 — Benefits

Shin-Heydorn shall receive the same fringe benefits provided to other Department head level employees, as may be established and amended from time to time, unless specifically amended by this Agreement.

Section 6 — Automobile/Telephone

The City agrees to pay to the Shin-Heydorn one hundred dollars (\$100.00) per month cellular telephone allowance, which shall be paid in equal installments in each pay period.

The City also agrees that upon proof of insurance coverage in an amount acceptable to the City, the City shall provide Shin-Heydorn with a Four Hundred Dollar (\$400) monthly automobile allowance. Shin-Heydorn agrees to adhere to all laws, regulations, and City policies applicable to vehicles, driving, or traffic when operating her vehicle on City-related business.

Section 7 — Holidays Benefits

Shin-Heydorn shall be entitled to the same holidays as other department head level City employees.

Section 8 — Health, Disability and Life Insurance

A. City agrees to provide medical, dental and vision coverage for Shin-Heydorn commensurate with the standard department head employee health benefits.



- B. City also agrees to provide Shin-Heydorn short-term and long-term disability insurance coverage commensurate with the standard City employee program.
- C. City also agrees to provide a term life insurance policy equal to a maximum of one hundred and fifty thousand (\$150,000.00).

Section 9 — Retirement

City agrees to execute all necessary agreements to enroll Shin-Heydorn in the California Public Employees Retirement System ("CalPERS") commensurate with the standard City employee retirement benefits program, as that program may be changed from time to time.

Section 10 — Deferred Compensation

Shin-Heydorn may, at her own cost, participate in the City's deferred compensation program.

Section 11 — Comprehensive Leave

In lieu of sick, vacation, administrative, or any other paid leave, Shin-Heydorn shall accrue annually up to a maximum of four hundred (400) hours of comprehensive leave. The City shall provide an initial balance of four hundred (400) hours on July 18, 2022. On June 30 of each year, Shin-Heydorn shall be paid, at the then current rate of pay, for all unused accumulated comprehensive leave up to a maximum of two hundred and twenty five (225) hours. After any such sell back of comprehensive leave under the previous sentence, any unused accumulated comprehensive leave remaining shall be carried forward to the following year. On July 1 of each year, the total amount of comprehensive leave available to Shin-Heydorn shall be replenished to reach the maximum comprehensive leave accumulation limit of four hundred (400) hours.

In the event that Shin-Heydorn voluntarily leaves the employ of the City, she shall receive in her final pay all accumulated but unused comprehensive leave at the then current rate of pay.

Section 12 — Dues and Subscriptions

City agrees to pay for the professional dues and subscriptions of Shin-Heydorn necessary for her continuation and full participation in national, regional, state and local associations and organizations necessary and desirable for her continued professional participation, growth and advancement, and for the good of the City.

Section 13 — Professional Development

A. City hereby agrees to pay the travel and subsistence expenses of Shin-Heydorn for professional and official travel, meetings and occasions adequate to continue the professional development of Shin-Heydorn and to adequately pursue necessary official and other functions for City, including but not limited to, International City and County Management Association, California City Management Foundation and League of California Cites and other professional associations.



- B. City also agrees to pay for the travel and subsistence expenses of Shin-Heydorn for short courses, institutes and seminars that are necessary for her professional development and for the good of the City.
- C. City recognizes that certain expenses of a non-personal and generally job-affiliated nature are incurred by Shin-Heydorn, and hereby agrees to pay said general expenses subject to submission of written receipts and documentation of such expenses.

Section 14 — Performance Evaluation

- A. The Council shall review and evaluate the performance of Shin-Heydorn at the one year anniversary of the Anniversary Date and at least once annually thereafter. A full, formal review and evaluation shall be conducted each year on or before the anniversary date of the Anniversary Date. The Mayor of City shall provide Shin-Heydorn with a summary written statement of the findings of the Council and provide an adequate opportunity for Shin-Heydorn to discuss her evaluation with the Council. Said criteria may be modified as the Council may from time to time determine in consultation with Shin-Heydorn.
- B. Annually, the Council and Shin-Heydorn shall define such goals and performance objectives which they determine necessary for the proper operation of the City, and in the attainment of the Council's policy objectives, said goals and objectives to be reduced to writing. They shall generally be attainable within the time limitations as specified and the annual operating and capital budgets and appropriations provided.

Section 15 — Indemnification

In accordance with and consistent with applicable law, City shall provide Shin-Heydorn with indemnification from and against any and all claims, actions, or causes of action of any kind for which Shin-Heydorn may be held liable and which arise out of or relate to Shin-Heydorn's performance of her job duties at City.

In addition and in accordance with and consistent with applicable law, City shall defend, at City's expense and with counsel of City's choosing any action, claim, or proceeding in which Shin-Heydorn is named and which alleges actions on the part of Shin-Heydorn, or failures to act, within the scope of the above-referenced indemnity obligation.

Any funds provided for the legal criminal defense of Shin-Heydorn, if such were authorized, shall be fully reimbursed to City if Shin-Heydorn were convicted of a crime involving an abuse of her office or position, in accordance with Government Code section 53243.1.

Section 16 - Bonding

City shall bear the full cost of any fidelity or other bonds required of Shin-Heydorn, acting as City Manager of the City, under any law or ordinance.

Section 17 — Other Terms and Conditions of Employment



- A. The Council, in consultation with the Shin-Heydorn, shall fix any such other terms and conditions of employment, as it may determine from time to time, relating to the performance of Shin-Heydorn, provided such terms and conditions are not inconsistent with or in conflict with the provisions of the Agreement or State or Federal law.
- B. All provisions of the City Municipal Code and regulations and rules of City relating to vacation and sick leave, retirement and pension system contributions, life insurance, holidays and other fringe benefits and working conditions as they now exist, or thereafter may be amended, which apply to department head level City employees, except as otherwise set forth herein, shall also apply to Shin-Heydorn.

Section 18 — Notices

Notices pursuant to this Agreement shall be given by deposit in the custody of the United States Postal Service, postage prepaid and addressed as follows:

1. City

City of Stanton

7800 Katella Avenue Stanton, CA 90680

2. Shin-Heydorn

Hannah Shin-Heydorn

Address on file

Alternatively, notices required pursuant to the Agreement may be personally served in the same manner as is applicable to civil judicial practice. Notice shall be deemed given as of the date of personal service or as of the date of deposit of such written notice in the course of transmission in the United States Postal Service.

Section 19 — General Provisions

- A. The text herein shall constitute the entire Agreement between the parties;
- B. The Agreement shall become effective as provided herein.
- C. No provision of the Agreement may be modified, waived or discharged unless such waiver, modification or discharge is agreed to in writing by the City and Shin-Heydorn.
- D. The Agreement shall be binding upon, or shall inure to the benefit of, the respective heirs, executors, administrators, successors and assigns of the parties provided however, that Shin-Heydorn may not assign Shin-Heydorn's obligations hereunder.
- E. This Agreement shall be governed by and construed in accordance with the laws of the State of California. Any legal proceeding which may be initiated by either party relating to this Agreement shall be brought in the courts of Orange County, California or in the Central District of California.
- F. If any provision, or any portion thereof, contained in this Agreement is held unconstitutional, invalid or unenforceable, the remainder of this Agreement, or portion



thereof, shall be deemed severable, shall not be affected and shall remain in full force and effect.

G. Shin-Heydorn acknowledges that she has had the opportunity to consult legal counsel in regard to this Agreement, that she has read and understands this Agreement, that she is fully aware of its legal effect, and that she has entered into it freely and voluntarily and based on her own judgment and not on any representations or promises other than those contained in the Agreement.

IN WITNESS WHEREOF, the City and Shin-Heydorn have signed and executed the Agreement as of the day and year first above written.

CITY OF STANTON

David J. Shawyer, Mayor

EMPLOYEE

Hannah Shin-Heydorn

ATTEST

Patrieta A. Valdyrez, City Clerko

CALIFORNIA

APPROVED AS TO FORM:

Best Best & Krieger



RESOLUTION NO. 2024-27

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF STANTON, CALIFORNIA, REGARDING EMPLOYEE BENEFITS AND SALARY RATES FOR ALL CLASSES OF EMPLOYMENT

WHEREAS, the City Council has historically adopted a resolution establishing the salary and benefits for all classes of employment; and

WHEREAS, Resolution No. 2024-16 included the most recent revisions to the salary and benefits for all classes of employment; and

WHEREAS, the City Council will review such resolution annually and make amendments as necessary.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF STANTON, CALIFORNIA, RESOLVES AS FOLLOWS:

SECTION 1: Superseding City Council Resolution 2024-16 and all prior resolutions, and each of them in their entirety, the following salary ranges are assigned to the listed classes of employment. Annual compensation is equal to 26 bi-weekly pay periods. For full-time and part-time classifications, a minimum of six-months of City service is required to advance to the next pay step in the salary range for all appointments at pay step A; and one year of City service is required for appointments at higher than step A. Salary Ranges are included as Exhibit A. The monthly salary schedule is included as Exhibit B.

RANGE	POSITION TITLE	Annual Minimum	Annual Maximum
1	Administrative Clerk	\$44,646	\$56,981
1	Facilities Maintenance Worker I	\$44,646	\$56,981
5	Senior Administrative Clerk	\$49,281	\$62,897
8	Facilities Maintenance Worker II	\$53,070	\$67,733
10	Departmental Assistant	\$55,757	\$71,162
10	Marketing Assistant	\$55,757	\$71,162
10	Parking Control/Code Enforcement	\$55,757	\$71,162
	Specialist		
10	Permit Technician	\$55,757	\$71,162
11	Accounting Technician	\$57,151	\$72,941
12	Business License Specialist	\$58,580	\$74,764
12	Planning Technician	\$58,580	\$74,764
13	Senior Facilities Maintenance Worker	\$60,044	\$76,633
16	Administrative Services Coordinator	\$64,661	\$82,526
16	Community Services Coordinator	\$64,661	\$82,526
16	Outreach Coordinator	\$64,661	\$82,526
18	Building Inspector	\$67,934	\$86,704

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18	Engineering Assistant	\$67,934	\$86,704
19	Administrative Services Supervisor	\$69,633	\$88,871
19	Code Enforcement Officer	\$69,633	\$88,871
19	Senior Accounting Technician	\$69,633	\$88,871
20	Management Analyst	\$71,374	\$91,093
21	Assistant Planner	\$73,158	\$93,370
21	Economic Development Specialist	\$73,158	\$93,370
21	Housing Specialist	\$73,158	\$93,370
22	Accountant	\$74,987	\$95,704
22	Public Works Inspector	\$74,987	\$95,704
25	Information Technology Specialist	\$80,753	\$103,063
26	Associate Planner	\$82,772	\$105,640
26	Code Enforcement/Parking Control	\$82,772	\$105,640
	Supervisor		
26	Community Services Supervisor	\$82,772	\$105,640
26	Facilities Maintenance Supervisor	\$82,772	\$105,640
26	Housing Associate	\$82,772	\$105,640
26	Human Resources/Risk Management	\$82,772	\$105,640
	Analyst		
29	Associate Engineer	\$89,136	\$113,763
31	Senior Public Works Inspector	\$93,649	\$119,522
33	Civil Engineer	\$98,390	\$125,573
33	Senior Planner	\$98,390	\$125,573
35	Accounting Manager	\$103,370	\$131,930
35	Administrative Services Manager	\$103,370	\$131,930
35	Assistant to the City Manager	\$103,370	\$131,930
35	Building Official	\$103,370	\$131,930
35	Code Enforcement/Parking Control	\$103,370	\$131,930
	Manager		
35	Community Services Manager	\$103,370	\$131,930
35	Public Works Manager	\$103,370	\$131,930
36	City Clerk	\$105,955	\$135,228
36	Human Resources Manager	\$105,955	\$135,228
36	Planning Manager	\$105,955	\$135,228
43	Assistant City Engineer	\$125,947	\$160,743
43	Assistant Community and Economic	\$125,947	\$160,743
	Development Director		
51	Administrative Services Director	\$153,454	\$195,850
51	Community/Economic Development	\$153,454	\$195,850
	Director		
51	Community Services Director	\$153,454	\$195,850
51	Finance Director	\$153,454	\$195,850
51	Public Works Director/City Engineer	\$153,454	\$195,850
51	Public Safety Services Director	\$153,454	\$195,850

53	Assistant City Manager	\$161,223	\$205,765
	City Manager		\$275,494
	Part-Time Positions		
Range	Position Title	Hourly Minimum	Hourly Maximum
1A	Intern	\$17.35	\$22.13
1A	Recreation Leader	\$17.35	\$22.13
1A	Park Ranger	\$17.35	\$22.13
1B	Senior Recreation Leader	\$20.85	\$26.61
1	Administrative Clerk Hourly	\$21.46	\$27.39
2	Code Enforcement Technician	\$22.00	\$28.08
10	Parking Control/Code Enforcement Specialist Hourly	\$26.81	\$34.21
16	Community Services Coordinator Hourly	\$31.09	\$39.68
16	Outreach Coordinator	\$31.09	\$39.68
26	Human Resources/Risk Management Analyst	\$39.79	\$50.79

SECTION 2: The following table designates the full-time position titles as non-exempt or exempt under the Fair Labor Standards Act ("FLSA"). All hourly part-time positions listed in Section 1 of this resolution are designated as non-exempt. Position titles designated as non-exempt are compensated overtime or compensatory time for hours actually worked in excess of forty (40) hours per workweek. Position titles designated as exempt are not eligible for overtime compensation under the FLSA, and will not receive overtime compensation for hours worked in excess of forty (40) hours per workweek.

FLSA DESIGNATION					
POSITION TITLE	EXEMPT/NON- EXEMPT STATUS	POSITION CATEGORY			
City Manager	Exempt	Executive			
Assistant City Manager	Exempt	Executive			
Public Safety Services Director	Exempt	Executive			
Public Works Director/City Engineer	Exempt	Executive			
Finance Director	Exempt	Executive			
Community Services Director	Exempt	Executive			
Community and Economic Development Director	Exempt	Executive			
Administrative Services Director	Exempt	Executive			
Assistant Community and Economic Development Director	Exempt	Management			
Assistant City Engineer	Exempt	Management			
Public Works Manager	Exempt	Management			
Planning Manager	Exempt	Management			
Human Resources Manager	Exempt	Management			

Community Services Manager	Exempt	Management
City Clerk	Exempt	Management
Code Enforcement/Parking Control Manager	Exempt	Management
Building Official	Exempt	Management
Assistant to the City Manager	Exempt	Management
Administrative Services Manager	Exempt	Management
Accounting Manager	Exempt	Management
Facilities Maintenance Supervisor	Exempt	Supervisory
Community Services Supervisor	Exempt	Supervisory
Code Enforcement/Parking Control Supervisor	Exempt	Supervisory
Administrative Services Supervisor	Exempt	Supervisory
Civil Engineer	Non-Exempt	General
Senior Planner	Non-Exempt	General
Senior Public Works Inspector	Non-Exempt	General
Human Resources/Risk Management Analyst	Non-Exempt	General
Housing Associate	Non-Exempt	General
Associate Planner	Non-Exempt	General
Associate Engineer	Non-Exempt	General
Public Works Inspector	Non-Exempt	General
Accountant	Non-Exempt	General
Assistant Planner	Non-Exempt	General
Housing Specialist	Non-Exempt	General
Information Technology Specialist	Non-Exempt	General
Economic Development Specialist	Non-Exempt	General
Management Analyst	Non-Exempt	General
Code Enforcement Officer	Non-Exempt	General
Senior Accounting Technician	Non-Exempt	General
Engineering Assistant	Non-Exempt	General
Building Inspector	Non-Exempt	General
Outreach Coordinator	Non-Exempt	General
Community Services Coordinator	Non-Exempt	General
Administrative Services Coordinator	Non-Exempt	General
Senior Facilities Maintenance Worker	Non-Exempt	General
Business License Specialist	Non-Exempt	General
Planning Technician	Non-Exempt	General
Accounting Technician	Non-Exempt	General
Permit Technician	Non-Exempt	General
Parking Control/Code Enforcement Specialist	Non-Exempt	General
Marketing Assistant	Non-Exempt	General
Departmental Assistant	Non-Exempt	General
Facilities Maintenance Worker II	Non-Exempt	General
Senior Administrative Clerk	Non-Exempt	General
Facilities Maintenance Worker I	Non-Exempt	General
Administrative Clerk	Non-Exempt	General

SECTION 3: The City of Stanton will provide the following benefits:

I. <u>RETIREMENT:</u>

- 1. The City is a member of the California Public Employees Retirement System (CalPERS), pursuant to the California Public Employees Retirement Law (Cal. Gov. Code § 30000 et seq.) (PERL), as amended by the Public Employees' Pension Reform Act of 2013 (PEPRA) (Assembly Bill (AB) 340, Chapter 296, Statutes of 2012, and AB 197, Chapter 297, Statutes of 2012). The City shall provide a tax-qualified governmental defined benefit plan for all full-time miscellaneous class of employees through CalPERS, in accordance with the following provisions:
 - a. Employees who are CalPERS members are subject to provisions of PERL, as amended by PEPRA. PEPRA imposes requirements and limitations on public employment retirement benefits for public employees, including establishment of a category of employees defined in PEPRA as "new members". Employees who were hired prior to January 1, 2013, or who otherwise do not fall within the definition of a "new member" under PEPRA, are referred to in this Resolution as a "classic member" under PEPRA.
 - b. Employees hired on or before August 27, 2011, are described as "classic members" (Tier 1). Classic members' (Tier 1) retirement benefits are based on the two percent at fifty-five (2% at 55) formula. The City shall pay the seven percent (7%) member contribution of their pensionable income to CalPERS as part of the required member retirement contribution.
 - c. Employees hired on or after August 28, 2011, are also described as "classic members" (2nd Tier). Classic members' (2nd Tier) retirement benefits are based on the two percent at sixty (2% at 60) formula. Tier 2 employees shall pay seven percent (7%) of their pensionable income to CalPERS as part of the required member retirement contribution.
 - d. Employees hired after January 1, 2013, and who are new to CalPERS, or have had more than a six (6) month break in CalPERS service, are subject to all laws, statutes, rules, and regulations of the Public Employees' Pension Reform Act of 2013 (PEPRA or 3rd Tier). The new member retirement benefit formula is two percent at sixty-two (2% at 62). All new members shall pay at least fifty percent (50%) of the normal cost of the retirement contribution rate, or the current contribution rate of similarly situated employees, whichever is higher, to CalPERS as part of the required member retirement contribution.
 - e. All full-time and part-time employees who are CalPERS members will be covered by the 1959 Survivor Benefit. A \$.93 bi-weekly deduction is required. This benefit consists of a monthly allowance, which may be paid to the employee's surviving spouse and children and is paid along with other death benefits and is payable whether or not the employee was eligible to retire at the time of death.

The City shall provide a retirement plan for all hourly part-time employees. Part-time employees are covered by the Public Agency Retirement Services Alternate Retirement System (PARS ARS). Employees contribute 7.5% salary contribution towards this program on a pre-tax basis. Upon separation from the City, hourly employees will receive one hundred percent (100%) of their contributions, plus any accrued interest.

II. <u>INSURANCES:</u>

- The City shall pay the minimum required monthly contribution for medical insurance for active employees as required by the Public Employees' Medical and Hospital Care Act (PEMHCA). To the extent required by the law, the City shall also contribute this amount for retirees.
- 2. The City shall pay the current Kaiser (OC) medical insurance premium for all eligible employees and two-thirds (2/3) of the additional Kaiser (OC) premium for eligible dependents. The individual employee shall pay the difference in the premium of the plan they choose, to be deducted from their salary. If a less expensive plan is selected by the employee, the employee shall receive the unused portion of the City's contribution as a cash payment not to exceed one hundred dollars (\$100.00) per month.
- 3. The City shall provide a medical insurance rebate program for full-time employees who are eligible for the City medical insurance program pursuant to Section II.2 above, and who are currently enrolled under a medical insurance program through a spouse or other source. Any employee for whom the City has approved waiver, the City shall compensate the employee in the amount of three hundred and fifty dollars (\$350.00) per month with the exception of Department Heads. The City shall compensate the employees occupying these positions as follows:

Position	Amount
Administrative Services Director	\$500
Assistant City Manager	\$500
City Manager	\$500
Community & Economic Development Director	\$500
Community Services Director	\$500
Finance Director	\$500
Public Works Director/City Engineer	\$500
Public Safety Services Director	\$500

4. The City shall contribute up to a maximum of twenty-three dollars and eight cents (\$23.08) per pay period for each part-time employee, who has been employed by the City for at least one year, to be used at the employee's discretion for designated dental and/or vision benefits. Such City contributions shall only be used for designated dental and/or vision benefits as determined by the City or a cash payment.

- 5. The City shall provide dental insurance for all eligible employees and their eligible dependents. This is provided by a carrier of the City's choosing. The City shall pay the current Delta Dental (PPO) premium amount for eligible employees and two-thirds (2/3) of the additional Delta Dental (PPO) premium for eligible dependents.
- 6. The City shall provide vision insurance for all eligible employees and their eligible dependents. This is provided by a carrier of the City's choosing. The City shall pay the current vision insurance premium for eligible employees and two-thirds (2/3) of the premium for eligible dependents.
- 7. The City shall provide term life insurance to full-time employees as follows:
 - a. The City will provide full-time employees with life insurance equal to a maximum of fifty thousand dollars (\$50,000) per employee.
 - b. The City will provide the City Manager with life insurance equal to a maximum of one hundred and fifty thousand dollars (\$150,000).
- 8. The City shall provide short-term disability insurance for regular full-time employees up to sixty-seven percent (67%) of the employee's weekly pre-disability earnings. However, the benefit shall not be more than two thousand dollars (\$2,000.00) per week. Payment for any accident or sickness eligible under the short-term disability policy shall commence on the thirty-first (31st) day after the accident occurs or sickness commences and shall continue for no more than sixty (60) days.
- 9. The City shall provide long-term disability insurance for regular full-time employees up to sixty percent (60%) of the employee's monthly pre-disability earnings. However, the benefit shall not be more than five thousand dollars (\$5,000) per month. If a disability qualifies under the long-term disability policy, benefits shall commence ninety (90) days after the accident occurs or sickness commences. An employee may not receive short-term disability insurance benefits and long-term disability insurance benefits at the same time.
- 10. In accordance with the California Labor Code, the City pays the rates for unemployment insurance for City employees as determined by the Employment Development Department.
- 11. Under the Workers' Compensation Insurance Law of California, any employee injured on the job in the course of employment is entitled to disability compensation and medical care.

III. <u>VACATION:</u>

1. Employees occupying full-time positions shall accrue vacation according to the following schedule:

Months of Service	Monthly Accrual	Annual Accrual
1-60	8	96
61-120	12	144
121+	16	192

Employees occupying part-time positions, who have completed one year of employment with the City, shall accrue vacation time expressed in working hours in accordance with the following:

Months of Service	Monthly Accrual	Annual Accrual
13-60	4	48
61-120	6	72
121+	8	96

- 3. Department Heads and the City Manager are not eligible to accrue vacation.
- 4. Vacation will be credited bi-weekly on a prorated basis proportionate to a full working month. Upon separation from the City, employees shall be compensated at their then rate of pay for their accrued vacation to a maximum of 360 hours. The maximum number of vacation hours an employee can accrue at any time is 360 hours. An employee who has reached 360 accrued vacation hours will stop accruing hours and will resume accruing vacation hours only when the number of accrued vacation hours falls below the maximum 360 hours. Probationary employees shall begin accrual of vacation leave effective on their first day of employment. New employees shall not be eligible to take vacation leave until completion of six (6) months of continuous service. Probationary employees may request exceptions to this policy, which may or may not be granted by the City Manager, in his/her discretion. Upon termination or resignation, the accrual of vacation for full-time employees will be pro-rated based on the number of hours worked during the final pay period. Upon termination or resignation, the accrual of vacation for eligible part-time employees will be pro-rated based on the number of weeks employed during the pay period.

IV. HOLIDAYS:

1. For pay purposes, the following holidays are recognized as municipal holidays for employees. Said employees shall receive these holidays off with pay:

New Year's Day (January 1)	
Martin Luther King's Birthday (third Monday in January)	

President's Day (3 rd Monday in February)
Memorial Day (last Monday in May)
Independence Day (July 4)
Labor Day (1 st Monday in September)
Veteran's Day (November 11)
Thanksgiving Day (every 4 th Thursday of November)
Christmas Eve (December 24)
Christmas Day (December 25)
New Year's Eve Day (December 31)
*One (1) Floating Holiday (discretion of employee)
*Two (2) Floating holidays between December 26 December 30

^{*}Floating Holiday must be taken during each fiscal year (July 1 through June 30). Floating holidays must be approved in advance by the Department Head.

- 2. <u>Timesheet Entry</u>: When a floating holiday is accrued and used, or when a holiday is observed by the City, employees shall record on their timesheets the hours that correspond with their regular workday shift within their established workweek schedule (i.e., employees on the four ten-hour day workweek (4/10) will record 10 hours for a holiday; employees on the five eight-hour workweek (5/8) will record 8 hours for a holiday; and employees on the nine eight-hour day workweek (9/80) will record 9 hours or 8 hours for a holiday as applicable.)
 - a. In the event any of the above holidays fall on Sunday, the holiday will be observed on the following Monday.
 - b. If any of the above holidays falls on a Friday or Saturday, employees who work a Monday Thursday (4/10) schedule, will accrue one day of floating holiday in their bank. Floating holiday hours will accrue in the same pay period as the actual holiday.
 - c. Employees who work on an alternate work schedule will accrue one (1) day of floating holiday leave if any holiday falls on the employees' regularly scheduled day off. Floating holiday hours will accrue in the same pay period as the actual holiday.
- 3. Part-time employees, who have completed one year of employment with the City, shall receive five (5) hours of holiday pay for each holiday and floating holiday. Holiday pay shall be computed at the employee's basic hourly rate. Floating holiday hours will accrue in the same pay period as the actual holiday.
- 4. Employees must use accrued floating holiday hours by June 30 of each fiscal year, or the hours will be forfeited.

- 5. Each regular full-time and eligible part-time employee shall be eligible for one (1) floating holiday, Section IV.1, of his or her choice to be scheduled with the approval of his/her Department Head. Floating holidays not used will be forfeited. Employees will be credited with this one (1) day of floating holiday at the beginning of each fiscal year. The number of hours will correspond with their regular workday shift within their established workweek schedule as outlined in Timesheet Entry, IV.2. Floating holiday hours not used by June 30 will be forfeited.
- 6. City services will be closed each year from December 26 through December 30 for Winter Holiday Closure. The City will provide full-time employees and eligible part-time employees with additional floating holiday pay for two (2) days between December 26 and December 30 that are the employee's normal working days per Resolution No. 2014-41. Employees shall record on their timesheets the hours that correspond with their regular workday shift within their established workweek schedule as outlined in Timesheet Entry, Section IV.2. Some City facilities, programs, and services may be required to remain open during this period as deemed necessary by the Department Head or City Manager.

V. <u>LEAVES OF ABSENCE</u>

- 1. Full-time employee sick leave with pay shall accrue at the rate of eight (8) hours for each calendar month for a total of 96 hours per fiscal year. Part-time employees shall accrue four (4) hours for each calendar month for a total of 48 hours per fiscal year. No employee may accumulate more than two hundred fifty (250) hours of sick leave. Upon separation, termination or retirement, there is no payout of unused sick leave for both full-time and part-time employees.
- 2. An employee shall be eligible for paid bereavement leave to receive necessary time off, not to exceed one (1) day in any one (1) instance, to arrange for or attend a funeral of a member of his/her immediate family. Immediate family shall mean father, father-in-law, mother, mother-in-law, stepparent, brother, brother-in-law, sister, sister-in-law, spouse, domestic partner, child, grandparent, grandchild, legal guardian, or legal ward. The first day of bereavement leave, in any one instance, shall be with pay and shall not be chargeable to any other leave balance. Upon request to and written approval by the City Manager, an employee may in certain circumstances be eligible to receive additional necessary time off, not to exceed a maximum of five (5) days in any one (1) instance. The four (4) additional days of bereavement leave, if approved, shall be with pay and chargeable to the employee's sick leave balance.
- 3. Voting Leave shall be provided in accordance with the California election Code, Sections 14000 and 14001, if a registered voter employee does not have sufficient time outside regular working hours within which to vote at statewide elections, he/she may take off such working time as will enable him/her to vote. A maximum of two (2) hours may be taken with pay.

- 4. Employees called to serve jury duty will be granted a leave of absence for a total of up to eight (8) days in any one calendar year provided any and all consideration, except travel reimbursement, received for such services is relinquished to the City. Fees for Jury duty performed during hours other than regularly scheduled working hours may be retained by the employee. Under special circumstances the City Manager, or designated representative(s), may authorize additional time if said time will not interfere or become a burden to City activities.
- 5. An employee who is called to answer a subpoena as a witness in any matter relating to City business during the employee's work hours shall be compensated at his/her regular rate of pay for all hours of absence from work due to answering the subpoena, provided the employee shows proof of such subpoena and deposits witness fees received for such hours, exclusive of mileage, with the City. Fees for answering a subpoena as a witness during hours other than regularly scheduled working hours may be retained by the employee.
- 6. Military leave shall be provided as set forth in the applicable California and federal law. An employee entitled to military leave shall give his/her Department Head an opportunity within the limits of military regulations to determine when such leave shall be taken. Prior to taking military leave, an employee, when possible, shall present a copy of his/her military orders to his/her Department Head. The Department Head shall advise the Personnel Officer of such military orders immediately.
- 7. Reproductive loss leave shall be provided as set forth in the applicable California and federal law. Employees are eligible for reproductive loss leave if they have been employees for at least thirty (30) days prior to the leave's start date and suffer a qualifying event. Eligible employees may take up to five (5) days when they suffer a reproductive loss event, which is the day, or the final day for a multiple day event, of one of the following:
 - a. Failed Adoption. The dissolution or breach of an adoption agreement with the birth mother or legal guardian, or an adoption that is not finalized because it is contested by another party.
 - b. Failed Surrogacy. The dissolution or breach of a surrogacy agreement, or a failed embryo transfer to the surrogate.
 - c. Miscarriage. May be a miscarriage by the employee, by the employee's current spouse or domestic partner, or by another individual, if the employee would have been a parent as a result of the pregnancy.
 - d. Stillbirth. May be a stillbirth resulting from an employee's pregnancy, the pregnancy of an employee's current spouse or domestic partner, or another individual if the employee would have been a parent as a result of the pregnancy.
 - e. Unsuccessful Assisted Reproduction. An unsuccessful round of intrauterine insemination or of an assisted reproductive technology procedure. This

event applies to the employee, the employee's current spouse or domestic partner, or another individual, if the employee would have been a parent as a result of the pregnancy.

Reproductive loss leave is unpaid, but employees can use existing sick leave, vacation, floating holiday or compensatory time off that is otherwise available to the employee.

- 8. A regular, part-time, or probationary employee shall be entitled to necessary time off with pay to participate in fitness tests, examinations and interviews required by the Personnel Officer during working hours for the purpose of determining eligibility for movement to another class or transfer from one position to another.
- 9. The Administrative Service Leave Program is designed for employees whose positions are characterized by: (1) a work time requirement which exceeds a normal workweek (2) mental application to work related matters during off duty hours (3) a continuing on-call status to address critical problems or issues (4) the inability of the incumbent to delegate all his/her work during vacations or other time off.
 - a. Administrative leave shall be provided on an annual basis to the following staff occupying these positions:

Position	Hours
City Clerk	64
Code Enforcement/Parking Control Supervisor	40
Planning Manager	40
Human Resources Manager	40
Community Services Manager	40
Code Enforcement/Parking Control Manager	40
Administrative Services Manager	40
Accounting Manager	40
Public Works Manager	40
Building Official	40
Community Services Supervisor	40
Facilities Maintenance Supervisor	40
Assistant City Engineer	40
Assistant to the City Manager	40
Administrative Services Supervisor	40
Assistant Community and Economic	40
Development Director	

b. Administrative leave shall be credited at the beginning of the fiscal year. The City Manager shall have the discretion to increase the maximum amount of Administrative Service Leave, up to a maximum amount of sixty-

- four (64) hours to the employees listed above. All Administrative Service Leave should be used within the fiscal year in which it is granted. Any Administrative Service Leave remaining at the end of the fiscal year will carry over to the following year, but will decrease the amount of Administrative Service Leave that is credited for the following fiscal year.
- c. Employees eligible for overtime pay may not participate in the Administrative Service Leave program.
- 10. Comprehensive Leave, in lieu of sick, vacation, administrative, or other paid leave, shall be provided on an annual basis to the following staff occupying these positions:

Position	Hours
Administrative Services Director	300
Assistant City Manager	300
City Manager	480
Community & Economic Development Director	300
Community Services Director	300
Finance Director	300
Public Works Director/City Engineer	300
Public Safety Services Director	300

- a. Every June 30th during the term of the employment agreement, Employee shall be paid at his/her then current rate of pay for all accumulated leave up to the maximum per his/her employment agreement. On July 1st of each year during the term of the employment agreement, the total amount of comprehensive leave available to the employee shall be replenished to reach the maximum comprehensive leave accumulation limit provided above.
- 11. In compliance with the California Moore-Roberti Family Rights Act of 1991 (CFRA) and the Federal Family and Medical Leave Act of 1993 (FMLA), the City will provide up to 12 weeks in any rolling 12-month period, unpaid, job-protected medical leave to eligible employees, certain family members or "designated person" as defined by Government Code Section 12945.2, and in accordance with the City's Personnel Rules Handbook.
- 12. A female employee disabled by pregnancy, childbirth or related medical conditions may take up to four (4) months of unpaid pregnancy disability leave per pregnancy, in addition to any family care or medical leave to which the employee may be entitled, in accordance with the City's Personnel Rules Handbook.
- 13. The City may, at the discretion of the City Manager, grant an employee a leave of absence without pay for a period not to exceed six (6) months when an employee has exhausted all of his/her paid leaves. After the initial six (6) months, the

Personnel Officer, in his/her discretion, may extend the leave for up to an additional three (3) months. However, unless otherwise required by law, in no circumstances shall the unpaid leave last longer than one (1) year. Leave without pay and without benefits is intended for unusual circumstances and approval will be evaluated based on the impact to departmental functions and work force levels.

VI. OVERTIME:

- 1. Employees designated as exempt are exempt from receiving overtime compensation.
- 2. Employees classified as non-exempt shall be paid at the rate of one and one-half (1½) times their regular rate of pay for all hours actually worked in excess of forty (40) hours during the normal workweek. Overtime is paid in increments of 30 minutes. Time worked shall be rounded off as one (1) hour for 45 minutes and one-half (1/2) hour for 15 minutes. Overtime shall not accrue until the affected employee has worked at least forty (40) hours during a workweek. No overtime will accrue during any scheduled closure of City Hall if the affected employee is scheduled to work during such period except where the employee works more than forty (40) hours during a workweek.

VII. MISCELLANEOUS BENEFITS:

1. Automobile allowance shall be provided on a monthly basis to the following staff occupying these positions:

Position	Amount
Administrative Services Director	\$300
Assistant City Manager	\$300
City Manager	\$400
Community and Economic Development Director	\$300
Community Services Director	\$300
Finance Director	\$300
Public Works Director/City Engineer	\$300
Public Safety Services Director	\$300

- 2. All regular and probationary full-time and part-time employees, who use one (1) or more alternative transportation methods (including carpool, vanpool, public transportation, bicycle, or walking) to get to and from work at least four (4) days for a calendar month, are eligible to receive an incentive of five dollars (\$5.00) per day. Department Heads elected and appointed officials, temporary and contractual employees, volunteers, and any person who receives an automobile or transportation stipend from the City are excluded from participation in this program.
- 3. Cell phone allowance shall be provided on a monthly basis to the following staff occupying these positions:

Position	Amount
Administrative Services Director	\$100
Assistant City Manager	\$100
City Manager	\$200
Community & Economic Development Director	\$100
Community Services Director	\$100
Finance Director	\$100
Public Works Director/City Engineer	\$100
Public Safety Services Director	\$100

- 4. The City shall provide employees who are required to utilize a cellular phone for business related purposes and do not receive a cell phone allowance with a City paid cellular telephone as deemed appropriate by the City Manager. The policy is to use this City issued phone for City business only.
- 5. Employees occupying the following positions who do not have City-issued cellular phones and require use of personal cellular phones in the conduct of City business are eligible to receive a monthly cellular phone stipend:
 - a. Code Enforcement/Parking Control Manager
 - b. Code Enforcement Officer
 - c. Code Enforcement/Parking Control Specialist

Eligible full-time employees shall receive an additional thirty dollars (\$30) per month and part-time employees shall receive an additional fifteen dollars (\$15) per month.

- 6. Employees who have reached three hundred fifty (350) hours of vacation accumulation may sell back vacation time to the City on the basis of two vacation hours for each vacation hour taken off by the employee during that fiscal year (July 1st through June 30th), up to a sell-back limit of eighty (80) hours. The sell back of vacation time shall be limited to one time during the fiscal year.
- 7. The City shall provide full-time employees a flexible spending account program for eligible health care and dependent care expenses.
- 8. The City shall offer employees additional voluntary health, dental, life insurance coverage plan options.
- 9. The City shall offer employees a Deferred Compensation Program. Participation is voluntary and the City does not match or contribute to employees' plan.
- 10. The City shall provide an Employee Assistance Program available to employees and their dependent family members.

- 11. The City shall provide a Sick Leave Incentive for the Prudent Use of Sick Leave.
 - a. Regular full-time Regular full-time employees, who have used thirty (30) hours or less of sick leave during the prior fiscal year, shall be credited with twenty (20) vacation hours at the start of the new fiscal year.
 - b. Regular full-time employees, who have used more than thirty (30) hours but not more than sixty (60) hours of sick leave during the prior fiscal year, shall be credited with ten (10) vacation hours at the start of the new fiscal year.
 - c. Part-time employees, who have completed one year of employment with the City, and who have used fifteen (15) hours or less of sick leave during the prior fiscal year, shall be credited with ten (10) vacation hours at the start of the new fiscal year.
 - d. Part-time employees, who have completed one year of employment with the City, and who have used more than fifteen (15) hours but not more than thirty (30) hours of sick leave during the prior fiscal year, shall be credited with five (5) vacation hours at the start of the new fiscal year.
- 12. Regular employees and part-time employees who have been employed for one (1) year are eligible for educational expense reimbursement. Education reimbursement shall be limited to one thousand two hundred and fifty dollars (\$1,250.00) per fiscal year per regular employee. Part-time employees are entitled to up to six hundred and twenty-five dollars (\$625.00) per fiscal year per employee. Education reimbursement may include books and tuition and shall not be made until such time as proper documentation is received by the Personnel Officer. Reimbursement shall not be made is proper documentation is not submitted within sixty (60) days of completion of the course. Employees who terminate their employment prior to the completion of the authorized course work or prior to the receipt of a payment under this program will not be eligible for any reimbursement for such course work under this program. Employees who terminate employment within one year of the completion of the course will reimburse the City the funds used upon separation.
- 13. The City shall provide bilingual pay to employees assigned to regularly and frequently speak and/or translate a second language in the amount of forty-six dollars and sixteen cents (\$46.16) for full-time employees and twenty-three dollars and eight cents (\$23.08) for part-time employees, per pay period for each pay period such assignment continues.
- 14. The City shall provide an employee computer purchase program. Employees can avail of the opportunity to purchase a personal computer with an interest-free two-year loan. Full-time employees, who have completed the one-year probationary period or part-time employees who have been employed with the City for over one year, are eligible to participate in this program.
- 15. The City will provide uniforms (pants and work shirts) for any employee who is required to wear a uniform as a condition of his/her employment.

- 16. The City shall provide a maximum of three hundred dollars (\$300) per year for the reimbursement of safety shoes for any employee who is required to wear safety shoes as a condition of his/her employment.
- 17. For those not provided with an auto allowance, the City will reimburse an employee the current Internal Revenue Service mileage rate in effect per mile driven for authorized use of an employee's private vehicle on City business. Employees that receive an auto allowance are not eligible for mileage reimbursement and must have a private vehicle available for use on City business.
- 18. Each employee assigned to on-call duty shall receive two (2) hours pay at thirty-five dollars (\$38.50) per hours for each week such duty is performed. On call duty is defined as that period of time other than regularly scheduled work time during which an employee is subject to call-out to provide services which are the responsibility of the department in which he/she is employed.
- 19. If an employee, who is not in the Administrative Service, is called back after 10:00 p.m. because of a request made, and the employee has completed his/her normal work shift and left the workstation, he/she is entitled to two (2) hours minimum of call-back pay. If an employee is called back between the end of their shift (4:30 p.m. for City Yard and 6:00 p.m. for Civic Center) and 10:00 p.m., the employee will receive one (1) hour minimum of call-back pay. If an employee is called back on his/her normal day off, he/she is entitled to two (2) hours minimum of call back pay. All payments for call-back pay shall be paid at the regular rate of pay unless such additional hours are in excess of forty (40) for the employee's workweek wherein he/she will receive payment at one and one-half (1½) times the regular rate of pay.
- 20. The City shall continue to provide vacation in lieu (grandfathered benefit) pay in the amount of \$520 per year to eligible employees as authorized prior to 1989.

SECTION 4: The City expressly reserves the right, in its sole discretion, at any time and from time to time, but upon a non-discriminatory basis, to amend or rescind any provision of this Resolution or any benefits or salary provisions, or to terminate any benefits or salary provisions. Such changes may apply to current and/or future employees, retirees, or their family members. All benefits in this Resolution shall be reviewed annually in their entirety.

SECTION 5: This Resolution shall become effective immediately upon its passage.

SECTION 6: The City Clerk shall certify to the adoption of this Resolution.

ADOPTED, SIGNED AND APPROVED this 9 th day of July, 2024.
DAVID J. SHAWVER, MAYOR
APPROVED AS TO FORM:
HONGDAO NGUYEN, CITY ATTORNEY
ATTEST:
I, Patricia A. Vazquez, City Clerk of the City of Stanton, California DO HEREBY CERTIFY that the foregoing Resolution, being Resolution No. 2024-27 has been duly signed by the Mayor and attested by the City Clerk, all at a regular meeting of the Stanton City Council, held on July 9, 2024, and that the same was adopted, signed, and approved by the following vote to wit:
AYES:
NOES:
ABSENT:
ABSTAIN:
DATRICIA A MAZOLIEZ CITY OLERIK
PATRICIA A. VAZQUEZ, CITY CLERK

EXHIBIT "A"

Salary	Hourly A	Hourly B	Hourly C	Hourly D	Hourly E	Hourly F	Monthly A	Monthly B	Monthly C	Monthly D	Monthly E	Monthly F
Grade	•	•	-	Ť	•					-		
1A	\$17.35020	\$18.21771	\$19.12860	\$20.08500	\$21.08928	\$22.14378	\$3,007.37	\$3,157.74	\$3,315.62		\$3,655.47	\$3,838.26
1B	\$20.85130	\$21.89381	\$22.98848	\$24.13798	\$25.34479	\$26.61210	\$3,614.23		\$3,984.67	\$4,183.92	\$4,393.10	\$4,612.76
1	\$21.46457	\$22.53775	\$23.66461	\$24.84792	\$26.09022	\$27.39481	\$3,720.53		\$4,101.87	\$4,306.97	\$4,522.31	\$4,748.43
2	\$22.00116	\$23.10123	\$24.25621	\$25.46907	\$26.74257	\$28.07968	\$3,813.53		\$4,204.41	\$4,414.64	\$4,635.38	\$4,867.15
3	\$22.55120	\$23.67872	\$24.86270	\$26.10577	\$27.41113	\$28.78164	\$3,908.87	\$4,104.31	\$4,309.53		\$4,751.26	\$4,988.82
4	\$23.11490	\$24.27066	\$25.48418	\$26.75845	\$28.09633	\$29.50114	\$4,006.58	\$4,206.91	\$4,417.26	\$4,638.13	\$4,870.03	\$5,113.53
5	\$23.69284	\$24.87747	\$26.12131	\$27.42744	\$28.79873	\$30.23871	\$4,106.76	\$4,312.10	\$4,527.69	\$4,754.09	\$4,991.78	\$5,241.38
6	\$24.28510	\$25.49939	\$26.77432	\$28.11309	\$29.51878	\$30.99469	\$4,209.42	\$4,419.89	\$4,640.88	\$4,872.94	\$5,116.59	\$5,372.41
7	\$24.89225	\$26.13686	\$27.44376	\$28.81593	\$30.25668	\$31.76953	\$4,314.66	\$4,530.39	\$4,756.92	\$4,994.76	\$5,244.49	\$5,506.72
8	\$25.51461	\$26.79031	\$28.12985	\$29.53631	\$31.01310	\$32.56377	\$4,422.53	\$4,643.65	\$4,875.84	\$5,119.63	\$5,375.60	\$5,644.39
9	\$26.15240	\$27.46008	\$28.83302	\$30.27476	\$31.78849	\$33.37786	\$4,533.08	\$4,759.75	\$4,997.72	\$5,247.63	\$5,510.01	\$5,785.50
10	\$26.80630	\$28.14660	\$29.55395	\$31.03163	\$32.58317	\$34.21234	\$4,646.42	\$4,878.74	\$5,122.68	\$5,378.82	\$5,647.75	\$5,930.14
11	\$27.47639	\$28.85022	\$30.29273	\$31.80735	\$33.39770	\$35.06766	\$4,762.58	\$5,000.70	\$5,250.74	\$5,513.27	\$5,788.93	\$6,078.39
12	\$28.16336	\$29.57148	\$31.05004	\$32.60258	\$34.23274	\$35.94437	\$4,881.65	\$5,125.72	\$5,382.01	\$5,651.11	\$5,933.67	\$6,230.36
13	\$28.86742	\$30.31081	\$31.82631	\$33.41766	\$35.08850	\$36.84290	\$5,003.69	\$5,253.87	\$5,516.56	\$5,792.39	\$6,082.01	\$6,386.10
14	\$29.58912	\$31.06856	\$32.62198	\$34.25302	\$35.96576	\$37.76404	\$5,128.78	\$5,385.22	\$5,654.48	\$5,937.19	\$6,234.06	\$6,545.77
15	\$30.32878	\$31.84527	\$33.43750	\$35.10944	\$36.86484	\$38.70811	\$5,256.99	\$5,519.85	\$5,795.83	\$6,085.64	\$6,389.91	\$6,709.41
16	\$31.08708	\$32.64139	\$34.27342	\$35.98714	\$37.78653	\$39.67578	\$5,388.43	\$5,657.84	\$5,940.73	\$6,237.77	\$6,549.67	\$6,877.13
17	\$31.86423	\$33.45746	\$35.13028	\$36.88678	\$38.73116	\$40.66770	\$5,523.13	\$5,799.29	\$6,089.25	\$6,393.71	\$6,713.40	\$7,049.07
18	\$32.66079	\$34.29381	\$36.00853	\$37.80902	\$39.69937	\$41.68442	\$5,661.20	\$5,944.26	\$6,241.48	\$6,553.56	\$6,881.22	\$7,225.30
19	\$33.47730	\$35.15123	\$36.90872	\$38.75420	\$40.69195	\$42.72651	\$5,802.73	\$6,092.88	\$6,397.51	\$6,717.39	\$7,053.27	\$7,405.93
20	\$34.31432	\$36.03003	\$37.83152	\$39.72308	\$41.70923	\$43.79472	\$5,947.82	\$6,245.21	\$6,557.46	\$6,885.33	\$7,229.60	\$7,591.08
21	\$35.17218	\$36.93077	\$38.77724	\$40.71610	\$42.75197	\$44.88950	\$6,096.51	\$6,401.33	\$6,721.39	\$7,057.46	\$7,410.34	\$7,780.85
22	\$36.05142	\$37.85401	\$39.74667	\$41.73404	\$43.82074	\$46.01174	\$6,248.91	\$6,561.36	\$6,889.42	\$7,233.90	\$7,595.59	\$7,975.37
23	\$36.95271	\$38.80039	\$40.74035	\$42.77733	\$44.91629	\$47.16208	\$6,405.14	\$6,725.40	\$7,061.66	\$7,414.74	\$7,785.49	\$8,174.76
24	\$37.87650	\$39.77037	\$41.75884	\$43.84687	\$46.03919	\$48.34110	\$6,565.26		\$7,238.20		\$7,980.13	\$8,379.12
25	\$38.82344	\$40.76461	\$42.80280	\$44.94297	\$47.19009	\$49.54966	\$6,729.40		\$7,419.15		\$8,179.62	\$8,588.61
26	\$39.79408	\$41.78376	\$43.87289	\$46.06653	\$48.36987	\$50.78843	\$6,897.64		\$7,604.63		\$8,384.11	\$8,803.33
27	\$40.78886	\$42.82838	\$44.96976	\$47.21820	\$49.57909	\$52.05807	\$7,070.07	\$7,423.59	\$7,794.76		\$8,593.71	\$9,023.40
28	\$41.80856	\$43.89901	\$46.09398	\$48.39865	\$50.81864	\$53.35957	\$7,246.82	\$7,609.16	\$7,989.62	\$8,389.10	\$8,808.56	\$9,248.99
29	\$42.85384	\$44.99655	\$47.24631	\$49.60864	\$52.08905	\$54.69359	\$7,428.00		\$8,189.36		\$9,028.77	\$9,480.22
30	\$43.92514	\$46.12143	\$48.42753	\$50.84884	\$53.39132	\$56.06091	\$7,613.69		\$8,394.11	\$8,813.80	\$9,254.50	\$9,717.22

EXHIBIT "A"

Salary	Hourly A	Hourly B	Hourly C	Hourly D	Hourly E	Hourly F	Monthly A	Monthly B	Monthly C	Monthly D	Monthly E	Monthly F
31	\$45.02334	\$47.27443	\$49.63819	\$52.12014	\$54.72612	\$57.46241	\$7,804.05	\$8,194.23	\$8,603.95	\$9,034.16	\$9,485.86	\$9,960.15
32	\$46.14889	\$48.45631	\$50.87916	\$53.42307	\$56.09421	\$58.89897	\$7,999.14	\$8,399.09	\$8,819.05	\$9,260.00	\$9,723.00	\$10,209.15
33	\$47.30265	\$49.66774	\$52.15112	\$54.75864	\$57.49659	\$60.37147	\$8,199.13	\$8,609.07	\$9,039.53	\$9,491.50	\$9,966.08	\$10,464.39
34	\$48.48519	\$50.90937	\$53.45493	\$56.12761	\$58.93403	\$61.88068	\$8,404.10	\$8,824.29	\$9,265.52	\$9,728.79	\$10,215.23	\$10,725.98
35	\$49.69728	\$52.18221	\$54.79127	\$57.53088	\$60.40741	\$63.42771	\$8,614.20	\$9,044.92	\$9,497.15	\$9,972.02	\$10,470.62	\$10,994.14
36	\$50.93969	\$53.48669	\$56.16102	\$58.96909	\$61.91750	\$65.01343	\$8,829.55	\$9,271.03	\$9,734.58	\$10,221.31	\$10,732.37	\$11,269.00
37	\$52.21319	\$54.82391	\$57.56505	\$60.44335	\$63.46552	\$66.63874	\$9,050.29	\$9,502.81	\$9,977.94	\$10,476.85	\$11,000.69	\$11,550.71
38	\$53.51855	\$56.19443	\$59.00415	\$61.95444	\$65.05213	\$68.30473	\$9,276.55	\$9,740.37	\$10,227.39	\$10,738.77	\$11,275.70	\$11,839.49
39	\$54.85654	\$57.59934	\$60.47929	\$63.50323	\$66.67843	\$70.01239	\$9,508.47	\$9,983.89	\$10,483.08	\$11,007.23	\$11,557.59	\$12,135.48
40	\$56.22794	\$59.03932	\$61.99126	\$65.09083	\$68.34541	\$71.76272	\$9,746.18	\$10,233.48	\$10,745.15	\$11,282.41	\$11,846.54	\$12,438.87
41	\$57.63363	\$60.51534	\$63.54104	\$66.71812	\$70.05406	\$73.55671	\$9,989.83	\$10,489.33	\$11,013.78	\$11,564.47	\$12,142.70	\$12,749.83
42	\$59.07449	\$62.02819	\$65.12964	\$68.38609	\$71.80538	\$75.39568	\$10,239.58	\$10,751.55	\$11,289.14	\$11,853.59	\$12,446.27	\$13,068.58
43	\$60.55128	\$63.57886	\$66.75781	\$70.09574	\$73.60047	\$77.28051	\$10,495.56	\$11,020.34	\$11,571.35	\$12,149.93	\$12,757.42	\$13,395.29
44	\$62.06513	\$65.16833	\$68.42677	\$71.84816	\$75.44055	\$79.21253	\$10,757.96	\$11,295.84	\$11,860.64	\$12,453.68	\$13,076.36	\$13,730.17
45	\$63.61679	\$66.79761	\$70.13741	\$73.64435	\$77.32648	\$81.19284	\$11,026.91	\$11,578.25	\$12,157.15	\$12,765.02	\$13,403.26	\$14,073.43
46	\$65.20714	\$68.46757	\$71.89094	\$75.48542	\$79.25972	\$83.22265	\$11,302.57	\$11,867.71	\$12,461.10	\$13,084.14	\$13,738.35	\$14,425.26
47	\$66.83730	\$70.17920	\$73.68812	\$77.37257	\$81.24124	\$85.30329	\$11,585.13	\$12,164.39	\$12,772.61	\$13,411.25	\$14,081.82	\$14,785.90
48	\$68.50825	\$71.93372	\$75.53040	\$79.30690	\$83.27227	\$87.43586	\$11,874.76	\$12,468.51	\$13,091.94	\$13,746.53	\$14,433.86	\$15,155.55
49	\$70.22098	\$73.73200	\$77.41865	\$81.28953	\$85.35401	\$89.62178	\$12,171.64	\$12,780.21	\$13,419.23	\$14,090.19	\$14,794.69	\$15,534.44
50	\$71.97649	\$75.57527	\$79.35409	\$83.32177	\$87.48790	\$91.86228	\$12,475.93	\$13,099.71	\$13,754.71	\$14,442.44	\$15,164.57	\$15,922.80
51	\$73.77588	\$77.46474	\$81.33793	\$85.40483	\$89.67503	\$94.15879	\$12,787.82	\$13,427.22	\$14,098.57	\$14,803.50	\$15,543.67	\$16,320.86
52	\$75.62025	\$79.40128	\$83.37138	\$87.53993	\$91.91697	\$96.51285	\$13,107.51	\$13,762.89	\$14,451.04	\$15,173.59	\$15,932.27	\$16,728.89
53	\$77.51082	\$81.38633	\$85.45566	\$89.72851	\$94.21491	\$98.92567	\$13,435.21	\$14,106.96	\$14,812.31	\$15,552.94	\$16,330.58	\$17,147.12

EXHIBIT "B"

City of Stanton Monthly Salary Schedule Effective July 1, 2024

RANGE NO.		POSITION/MONTHLY SALARY							
	STEP	A	В	C	D	E	F		
		17.35 3007	18.22 3158	19.13 316	20.09 3481	21.09 3655	22.14 3838		
1A		Intern							
			Ranger	,					
		Recre	ation Le	eader					
1B		20.85	21.89	22.99	24.14	25.34	26.61		
		<u>3614</u>	3795	3985	4184	4393	4613		
		Senio	r Recrei	ation Le	eader				
		21.46	22.54	23.66	24.85	26.09	27.39		
		<u>3721</u>	3907	4102	4307	4523	<u>4748</u>		
1			istrativ						
		Facili	ties Ma	intenan	ce Worl	ker I			
		22.00	23.10	24.26	25.47	26.74	28.08		
			4004			4636	4867		
2		Code	Enforce	ement T	echnicia	an			
		23.69	24.88	26.12	27.43	28.80	30.24		
		<u>4107</u>				4992	<u>5241</u>		
5		Senio	r Admin	istrativ	e Clerk				
		25.51	26.79	28.13	29.54	31.01	32.56		
		4423	4644	4876	5120	5376	<u>5644</u>		
8		Facili	ties Ma	intenan	ce Worl	ker II			
		26.81	28.15	29.55	31.03	32.58	34.21		
		<u>4646</u>	4879	5123	5379	5647	<u>5930</u>		
10			rtmenta		ant				
		Marketing Assistant							
		Parking Control/Code Enforcement Specialist Permit Technician							
		Permi	t 1echn	ıcıan					
		27.48	28.85	30.29	31.81	33.40	35.07		
1.1		4763	5001	5251	5513	5789	<u>6078</u>		
11		Ассои	inting T	echnici	an				

RANGE NO.		POSITION/MONTHLY SALARY							
	STEP	A	В	C	D	E	F		
		28.16	29.57	31.05	32.60	34.23	35.94		
12		<u>4882</u>		5382	5651	5934	<u>6230</u>		
12			ess Lice	-					
		Piann	ing Tec	nnician					
		28.87	30.31	31.83	33.42	35.09	36.84		
		<u>5004</u>	5254	5517	5792	6082	6386		
13		Senio	r Facilii	ties Mai	intenan	ce Work	ter		
		31.09	32.64	34.27	35.99	37.79	39.68		
		<u>5388</u>	5658	5941	6238	6549	<u>6877</u>		
16		Admir	nistrativ	e Servi	ces Coo	rdinato	r		
			nunity S			nator			
		Outre	ach Co	ordinate	or				
		32.66	34.29	36.01	37.81	39.70	41.68		
		<u>5661</u>	5944	6241	6554	6881	7225		
18			ing Insp						
		Engineering Assistant							
		33.48	35.15	36.91	38.75	40.69	42.73		
		<u>5803</u>	6093	6398	6717	7054	7406		
19			nistrativ		-	ervisor			
			Enforce						
		Senio	r Accou	nting 16	гсппіси	an			
		34.31	36.03	37.83	39.72	41.71	43.79		
		<u>5948</u>	6245	6557	6885	7229	<u>7591</u>		
20		Mana	gement	Analysi	4				
		35.17	36.93	38.78	40.72	42.75	44.89		
		<u>6097</u>	6401	6721	7057	7410	7781		
21			ant Plai						
		Economic Development Specialist							
		Housi	ing Spec	cialist					
		36.05	37.85	39.75	41.73	43.82	46.01		
		<u>6249</u>	6561	6889	7234	7596	7975		
22		Accou		_					
		Public	c Works	Inspec	tor				

RANGE NO.		POSITION/MONTHLY SALARY						
	STEP	A	В	С	D	E	F	
		20.02	10.76	12.00	44.04	47.10	40.55	
		38.82 6729	40.76 7066	42.80 7419	44.94 7790	47.19 8180	49.55 8589	
25		_			gy Spec		0307	
		v						
		39.79	41.78	43.87	46.07	48.37	50.79	
26		6898	7243 iate Pla	7605	7985	8384	8803	
20					arkino (Control	Supervisor	
					Supervi		σαρείνισοι	
			-		ce Supe			
			ng Asso		-			
		Huma	n Resou	ırces/Ri	sk Mand	agement	t Analyst	
		42.85	45.00	47.25	49.61	52.09	54.69	
		7428	7799	8189	8599	9029	9480	
29			iate Eng	gineer				
		45.02	47.27	49.64	52.12	54.73	57.46	
		7804	8194	8604	9034	9486	9960	
31		Senior	· Public	Works	Inspect	or		
		47.30	49.67	52.15	54.76	57.50	60.37	
		<u>8199</u>	8609	9040	9492	9966	10464	
33			Enginee					
		Senior	· Planne	er				
		49.70	52.18	54.79	57.53	60.41	63.43	
		<u>8614</u>	9045	9497	9972	10470	10994	
35			_	lanager ~				
					es Man	_		
			ant to th ng Offic		Manage	r		
					arkino (Control	Manaoer	
		Code Enforcement/Parking Control Manager Community Services Manager						
			-	Manag	_			
		50.94	53.49	56.16	58.97	61.92	65.01	
_		8830	9271	9735	10221	10732	11269	
36		City C		17				
				irces Mi	anager			
		runni	ing Mar	iuger				

RANGE NO.		POSITION/MONTHLY SALARY						
	STEP	A	В	C	D	E	F	
		60.55	63.58	66.76	70.10	73.60	77.28	
		<u>10496</u>	11020	11571	12150	12757	13395	
43		Assista	ant City	Engine	eer			
		Assista	ant (Commun	iity a	ınd E	Conomic	
		Develo	opment	Directo	r			
		73.78	77.46	81.34	85.40	89.68	94.16	
		, , , , ,					16321	
51		_			ces Dire			
V 2							ent Director	
			•		Directo	-	21. 0010.	
			ce Dire		21.0010	•		
					or/City i	Enginee	er	
		Public Works Director/City Engineer Public Safety Services Director						
		77.51	81.39	85.46	89.73	94.21	98.93	
							17147	
53				, Manag		10000	1/17/	

The annual salary for the City Manager is \$275,494 (\$22,958/mo.) effective 7/1/2024.

The monthly salary for City Council Members is \$850, effective 3/5/2017.

Revision Effective Dates:	11/28/2012	04/25/2018	06/09/2020	07/01/2022
	03/10/2015	06/12/2018	07/14/2020	07/18/2022
	05/12/2015	09/11/2018	01/01/2021	07/02/2023
	03/05/2017	03/18/2019	07/01/2021	07/01/2024
	04/25/2017	09/24/2019	09/14/2021	
	06/27/2017	11/12/2019	01/01/2022	
	09/12/2017	01/01/2020	03/27/2022	
	02/27/2018	03/24/2020	05/16/2022	

Item: 12C

Click here to return to the agenda.

CITY OF STANTON REPORT TO CITY COUNCIL

TO: Honorable Mayor and Members of the City Council

DATE: July 9, 2024

SUBJECT: AN URGENCY INTERIM ORDINANCE OF THE CITY COUNCIL OF THE

CITY OF STANTON ESTABLISHING A TEMPORARY MORATORIUM UNDER GOVERNMENT CODE SECTIONS 36937 AND 65858 ON THE ESTABLISHMENT OF NEW MEDICAL SERVICES UNDER MUNICIPAL CODE SECTION 20.400.200: AND DETERMINING THE ACTION TO BE

EXEMPT FROM CEQA

REPORT IN BRIEF:

The City of Stanton ("City") has received inquiries about establishing new medical-services uses under section 20.400.200 of the municipal code. These are facilities or clinics that operate outpatient treatment and counseling centers that, in addition to counseling, treat individuals with substance abuse disorder by employing medicines that eliminate drug cravings and withdrawal symptoms typically experienced when individuals with various substance dependence stop using their substance of abuse. While these uses provide a valuable service to the community, they can be associated with negative impacts on the vulnerable populations that they serve if not property regulated. The City Council is asked to consider an interim urgency ordinance to temporarily prohibit the establishment of new medical-service uses under section 20.400.200 and the expansion, enlargement, or alteration of these uses that already exist in the City. The interim urgency ordinance is intended to provide the City with time to study the impacts of these establishments and to develop appropriate new regulations.

RECOMMENDED ACTION:

- 1. City Council find that adoption of the proposed urgency ordinance is:
 - a. Not a "project" within the meaning of Section 15378 of the State of California Environmental Quality Act ("CEQA") Guidelines (Title 14 of the California Code of Regulations) because it has no potential for resulting in physical change in the environment, directly or indirectly; and
 - b. Exempt from the requirements of CEQA under Section 15061(b)(3) of the CEQA Guidelines, as it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment.

2. Adopt Urgency Ordinance No. 1145, entitled:

"AN URGENCY INTERIM ORDINANCE OF THE CITY COUNCIL OF THE CITY OF STANTON ESTABLISHING A TEMPORARY MORATORIUM UNDER GOVERNMENT CODE SECTIONS 36937 AND 65858 ON THE ESTABLISHMENT OF NEW MEDICAL SERVICES UNDER MUNICIPAL CODE SECTION 20.400.200; AND DETERMINING THE ACTION TO BE EXEMPT FROM CEQA."

BACKGROUND:

Under the California Constitution and pursuant to its police powers, the City is charged with protecting the health, safety, and welfare of its citizens. A large part of that responsibility is addressing potential negative impacts and striving for a high quality of life for all of Stanton residents, including the disabled.

The City of Stanton has an existing medical-service use under section 20.400.200 that was approved through a Conditional Use Permit in 1976 to allow detoxification and methadone treatment. The operation of this center has resulted in negative impacts to the vulnerable population that it serves, such as narcotic use activities, disturbances, assaults and battery, and interference with peaceful use and enjoyment of property. Because of this, there is great concern that the public health, safety, and welfare may be negatively impacted if new medical-service uses or expansions of the existing medical-service use is permitted without appropriate regulation.

The City needs time to study the issues and work on proposals to bring to the City Council. City administrators and staff will work on providing recommendations to appropriately update the City's Municipal Code and Zoning regulations to address these issues.

ANALYSIS/JUSTIFICATION:

Currently, the Stanton Municipal Code (SMC) includes a subsection that addresses *medical services*, which includes methadone clinics and alcohol treatment centers (SMC Section 20.400.200). This section provides minimal regulations for these uses and needs to be updated along with all the land use tables of the Municipal Code. The Municipal Code needs to be revised to better address negative impacts to public, including the vulnerable population that need these services.

Government Code Section 36937 authorizes the City Council to adopt an urgency ordinance for the immediate preservation of the public peace, health, and safety. Moreover, Government Code Section 65858 authorizes the City Council to adopt an interim ordinance "to protect the public safety, health, and welfare" by "prohibit[ing] any uses that may be in conflict with a contemplated general plan, specific plan, or zoning proposal that the legislative body, planning commission or the planning department is considering or studying or intends to study within a reasonable time."

As noted in the "Background" section, above, there is an immediate need to preserve and protect the public peace, health, safety, and welfare by not allowing the more or expanded medical-service uses under 20.400.200 until the City can establish more appropriate regulations. Thus, an interim urgency ordinance squarely meets the requirements of Government Code sections 36937 and 65858 and is needed, immediately.

The attached interim urgency ordinance (Attachment 1) includes the requisite Government Code findings and, if adopted, would institute a 45-day moratorium to provide staff with time to research, study, and prepare recommendations for the Council's consideration. If adopted, both of the following restrictions would be in place for the duration of the urgency ordinance:

- 1. No new medical service under section 20.400.200 would be established within the City.
- 2. No existing medical service under section 20.400.200 would be authorized to expand, enlarge, or alter its physical footprint or to provide additional or new services.
- 3. The City would not issue any approval for the establishment, expansion, enlargement, or alteration of any medical service under section 20.400.200.

In order for the urgency ordinance to be effective, four-fifths of the City Council must approve the ordinance. Thereafter, the ordinance would remain in effect for 45 days from its adoption (unless earlier repealed, terminated, or extended by the Council).

FISCAL IMPACT:

There is no fiscal impact associated with this Urgency Ordinance.

ENVIRONMENTAL IMPACT:

In accordance with the requirements of California Environmental Quality Act ("CEQA"), the project is exempt from CEQA under Sections 15378 and Section 15061(b)(3) of the State CEQA Guidelines (Title 14 of the California Code of Regulations).

PUBLIC NOTIFICATION:

Government Code section 65858 allows a city that adopts an ordinance under that section to forgo any required procedures and noticing associated with the adoption of a zoning ordinance. Public notice for this item was made through the regular agenda process.

STRATEGIC PLAN OBJECTIVES:

Obj. No. 1: Provide a safe community. Obj. No. 5: Provide a high quality of life.

Prepared by: Crystal Landavazo, Director of Community and Economic Development

Reviewed by: HongDao Nguyen, City Attorney Approved by: Hannah Shin-Heydorn, City Manager

Attachment:

A. Interim Urgency Ordinance No. 1145

INTERIM URGENCY ORDINANCE NO. 1145

AN URGENCY INTERIM ORDINANCE OF THE CITY COUNCIL OF THE CITY OF STANTON ESTABLISHING A TEMPORARY MORATORIUM UNDER GOVERNMENT CODE SECTIONS 36937 AND 65858 ON THE ESTABLISHMENT OF NEW MEDICAL SERVICES UNDER STANTON MUNICIPAL CODE SECTION 20.400.200; AND DETERMINING THE ACTION TO BE EXEMPT FROM CEQA

WHEREAS, under Cal. Const. Art. XI, Sec. 7 and the City of Stanton's ("City") general police powers, the City is empowered and charged with responsibility for the health, safety, and welfare of its citizens; and

WHEREAS, the City protects the health, safety, and welfare of the community through numerous avenues, including by establishing and enforcing zoning, licensing and health, and safety regulations on specified commercial activities; and

WHEREAS, the City has observed ongoing negative impacts on vulnerable populations from activity originating from an existing medical service facility under Municipal Code section 20.400.200, which has resulted in a disproportionate amount of service calls from the City's Code Enforcement and other public-safety resources to assist the disabled and others; and

WHEREAS, medical services under section 20.400.200 can, if not properly regulated, result in substantial and immediate threats to the health, safety, and welfare of the vulnerable populations that need the services. These detrimental effects include, among other things: narcotic use activities, disturbances, assaults and battery, and interference with peaceful use and enjoyment of property; and

WHEREAS, section 20.400.200 contains some regulations to address the negative impacts that sometimes occur with these medical-service uses, but these provisions need to be comprehensively revised and updated to address the serious conditions and potential harms before allowing the expansion or establishment of any new such use; and

WHEREAS, under Government Code section 36937, the City Council may adopt an urgency ordinance for the immediate preservation of the public peace, health, or safety; and

WHEREAS, under Government Code section 65858, the City Council may adopt an interim urgency ordinance to protect the public safety, health, and welfare to prohibit uses that may be in conflict with a contemplated general plan, specific plan, or zoning proposal that the City is considering or studying or intends to study within a reasonable time; and

WHEREAS, City staff and the City Attorney's office are conducting research to understand the impacts of medical-service uses under section 20.400.200 on the vulnerable populations that they serve, as well as on community health, safety, and welfare; and they are exploring options for potential amendments to the City's regulatory process and zoning codes to protect the health, safety, and welfare of the disabled of the public generally, including ways to appropriately mitigate potential negative impacts that can occur at and around these uses; and

WHEREAS, as a result, the City Council desires to institute a 45-day moratorium to allow staff and the City Council the opportunity to research and select the best course of action for all of the City's residents and visitors, including the disabled persons who need these kinds of medical services.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF STANTON, CALIFORNIA, DOES HEREBY ORDAIN AS FOLLOWS:

<u>SECTION 1:</u> The above recitals are true and correct and are incorporated herein by reference. They contain the facts that constitute the urgent need for this Ordinance.

SECTION 2: The City Council finds that adoption of this ordinance is not a project within the meaning of Section 15378 of the State of California Environmental Quality Act ("CEQA") Guidelines, because it has no potential for resulting in physical change in the environment, directly or indirectly. The City Council further finds that, under Title 14 of the California Code of Regulations, section 15061(b)(3), this Interim urgency ordinance is nonetheless exempt from the requirements of CEQA. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA. The moratorium imposed by this ordinance is inherently temporary, and it merely preserves the status quo. It does not authorize any new development or other activity that could have an impact on the environment.

SECTION 3: In consideration of the staff report, public comment, and the findings in this ordinance, the City Council hereby enacts this interim urgency ordinance under Government Code sections 36937 and 65858, which allow the City Council to adopt interim urgency ordinances by not less than a four-fifths vote. Section 65858 allows the City Council to protect the public safety, health, and welfare by temporarily prohibiting any use that may be in conflict with a zoning proposal that the City Council, Planning Commission, or department of the City is considering or studying or that they intend to study within a reasonable time. The purpose of this urgency ordinance is to maintain the status quo while the City evaluates whether and how to appropriately regulate the subject uses.

SECTION 4: The City Council hereby directs and orders as follows:

- 1. During the time that this Interim Urgency Ordinance is in effect, no new medical-service use or activity under section 20.400.200 may be established in the City;
- 2. No existing medical-service use or activity under section 20.400.200 may be authorized or allowed to expand, enlarge, or alter its physical footprint or increase its intensity of use by providing any additional or new service while this Interim Urgency Ordinance is in effect;
- 3. During the period that this Interim Urgency Ordinance is in effect, the City may not issue any approval of any kind for the establishment, expansion, enlargement, or alteration of any medical-service use or activity under section 20.400.200 within the City. Notwithstanding the forgoing, the City may issue building permits to allow for ordinary maintenance and repairs to existing legal buildings and structures.

<u>SECTION 5:</u> The City will continue to accept and process applications for uses prohibited by this moratorium to the extent required by state law. Any application received and processed during the moratorium will be processed at the applicant's sole cost and risk, with the understanding that no approval for a use covered by Section 4 above may be issued while this moratorium or any extension of it is in effect, and any approval for which an applicant might apply during the moratorium might be affected by new regulations that the City might adopt as a result of its study and deliberations during the moratorium.

SECTION 6: This ordinance is adopted under the authority of Government Code sections 36937 and 65858 and takes effect immediately upon its passage by a four-fifths vote of the City Council. The City Council finds that the lack of appropriate regulation and protections for medical services under section 20.400.200 too often results in harmful and unlawful activities that pose a significant, urgent, and immediate threat to the health, safety and welfare of the vulnerable populations that need those services, as well as to the community. Consequently, the City Council finds that this Interim Urgency Ordinance is necessary for the immediate preservation of the public health, safety, and welfare of disabled persons and others in the community. This interim Urgency Ordinance remains in effect for 45 days from its adoption, unless earlier repealed, terminated, or extended.

SECTION 7: Not less than 10 days prior to the scheduled expiration of this Interim Urgency Ordinance, staff must issue a report to the City Council on the progress of its study and on determinations for how the City should proceed, insofar as conclusions have been drawn.

SECTION 8: If any provision of this Interim Urgency Ordinance or the application thereof to any person or circumstance is held by a court of competent jurisdiction to be invalid or unconstitutional, the invalidity or unconstitutionality does not affect other provisions or applications of this Interim Urgency Ordinance that can be given effect

without the invalid provision or application, and to this end the provisions of this Interim Urgency Ordinance are severable. The City Council hereby declares that it would have adopted this Ordinance irrespective of the invalidity of any particular portion thereof.

PASSED, APPROVED, AND ADOPTED this 9th day of July, 2024. DAVID J. SHAWVER, MAYOR ATTEST: PATRICIA A. VAZQUEZ, CITY CLERK APPROVED AS TO FORM: HONGDAO NGUYEN, CITY ATTORNEY STATE OF CALIFORNIA) COUNTY OF ORANGE) ss. CITY OF STANTON I, Patricia A. Vazquez, City Clerk of the City of Stanton, California, do hereby certify that the foregoing Urgency Ordinance No. 1139 was duly introduced and adopted at a regular meeting of the City Council held on the 27th day of February, 2024, by the following roll-call vote, to wit: COUNCILMEMBERS: AYES: NOES: COUNCILMEMBERS: _____ COUNCILMEMBERS: ABSENT: RECUSED: COUNCILMEMBERS:

PATRICIA A. VAZQUEZ, CITY CLERK

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City Council Initiated Item 15D

Item 15D:

"DISCUSSION REGARDING REQUEST TO PROCEED WITH A NON-DISCLOSURE AGREEMENT WITH THE ORANGE COUNTY POWER AUTHORITY (OCPA)"

(These items do not contain a staff report)