



CITY OF CORCORAN

Contract Documents and Specifications for

# 2020 WASTEWATER TREATMENT PLANT MODIFICATIONS

CDBG BLOCK GRANT 17-CDBG-12093

AUGUST 2020

**W3i**  
**Engineering**

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Bakersfield, CA 93308

## **Project**

City of Corcoran

Contract Documents and Specifications for

**2020 Wastewater Treatment Plant Modifications**

**CDBG Block Grant 17-CDBG-12093**

## **Owner**

**City of Corcoran**

**Public Works Department**

832 Whitley Avenue

Corcoran, CA 93212

## **Engineer**

**W3i Engineering**

Bakersfield, CA 93308

Contact: Terry W. Schroepfer, P.E.

Voice: 661-319-3648

E-mail: [tschroepfer@w3ieng.com](mailto:tschroepfer@w3ieng.com)

## **Bid Issue**

October 10, 2020



Date signed October 10, 2020

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FHWA-1273

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## NOTICE TO CONTRACTORS

SEALED PROPOSALS will be received by the City of Corcoran prior to 11:00 AM on February 8th, 2021 to be publicly opened and read immediately thereafter in the offices of the City, 832 Whitley Avenue, Corcoran, CA. for the following work:

### 2020 Wastewater Treatment Plant Modifications

Bids shall be submitted in a sealed envelope with the name of the bidder, the name of the project and the statement **“Do Not Open Until the Time of Bid Opening.”** Bids received after said deadline will be returned unopened to the bidder.

A full set of Bidding and Contract Documents are available for examination at the office of the City of Corcoran at the address noted above. Electronic Bidding Documents [portable document format (PDF)] are available to Bidders at no charge. To request Electronic Bidding Documents contact Terry Kuwahara at Blueprint Service Co., 1100 18<sup>th</sup> St., Bakersfield ([terryk@blueprintservicenet.net](mailto:terryk@blueprintservicenet.net)) or at 661-327-2501. Printed copies are available at the cost of printing and shipping through Blueprint Service Company, Bakersfield. Charges are not refundable, whether the documents are returned or not.

No bid will be considered unless it is made on a proposal form included with the Bid and Contract Documents. Bidders shall furnish a Bid Security with their Bidder's Proposal in the amount of 10% of the base bid amount. Engineers Estimate is \$1,800,000.

The City reserves the right, after opening Bids, to reject any or all Bids, to waive any informality or non-responsiveness in a Bid, or to make award to the lowest responsive, responsible Bidder and reject all other Bids, as it may best serve the interest of the City.

Davis Bacon Federal Labor Compliance & State Prevailing Wage Rates: Pursuant to Section 1770, California Labor Code, the successful Bidder shall pay not less than the prevailing rate of per diem wages as determined by the Director of California Department of Industrial Relations. A copy of such prevailing rate is on file at the offices of the City which copy will be made available for examination during business hours to any party on request: Prevailing wage rate information is also available on the internet at the following website address: <http://www.dir.ca.gov/dlsr/PWD>.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. No contractor or subcontractor may be listed on a bid proposal for a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5

Substitution of securities for moneys retained to ensure performance shall be permitted pursuant to the provisions and requirements of Public Contracts Code 22300.

Contractor's License Classification: In accordance with the provisions of California Public Contract Code, Section 3300, the Bidder shall possess a valid Class A General Engineering Contractor's License at the time of Bid opening and for the duration of the contract. The Contractor shall ensure that all subcontractors are properly licensed for the work they are to perform.

### GENERAL DESCRIPTION OF WORK

Construction of Wastewater Treatment Plant Improvements including earthwork, pond lining, aeration system, blowers, metal building, piping, pump replacement and electrical.

BY THE ORDER OF THE CITY OF CORCORAN

s/ Joseph Faulkner  
Joseph Faulkner, Public Works Director

\_\_\_\_\_  
Date

## SECTION 00 21 13

### INSTRUCTIONS TO BIDDERS

1. The Contract Documents include the Contract Agreement, the Notice to Contractors, the Instructions to Bidders, the General Conditions, Supplementary General Conditions, Bidding and Contract Documents - Division 00, General Requirements - Division 01, Technical Specifications, Drawings the Bidder's Proposal as accepted (including the Bid Schedule), and items listed in No. 4 below, and any Addenda or Change Orders. Bidders must examine each of the Contract Documents, must visit the location of the Work and inform themselves of the conditions and make their own estimates of the facilities and difficulties attending the execution of the Work. **A mandatory construction bid walk will be held on Thursday, January 21, 2021 at 8:30 AM at the Corcoran WWTP on 900 Pueblo Avenue, Corcoran, CA 93212.**
2. All Bids must be presented under sealed cover on the blank proposal form attached hereto. Bids shall be submitted in a sealed envelope with the name of the Bidder, the Bidder's state registration number, the name of the project and the statement **"Do Not Open Until The Time of Bid Opening."** Bids are required for the entire work described herein. Bids will be compared on the basis of the total of bid items in the Bid Schedule. Award, if made, will be based upon the lowest responsible responsive bid submitted.
3. The party to whom the Contract is awarded must, at the time the bids are opened, possess an active **Class A General Engineering Contractor's license** valid in the State of California.
4. The Bidder shall submit all of the items listed below in the Bid.

Section 00 41 43 – Bidders Proposal

Section 00 43 36 – List of Subcontractors

Section 00 45 13 – Qualification Statement

Section 00 45 16 - Non-Collusion Affidavit

Section 00 45 26 – Workers Compensation Certification

Section 00 45 47 – PCC 10162 – Questionnaire on Disqualification

Acknowledgement of receipt of all Addenda (In Bidder's Proposal)

Bid Security attached to front of Proposal

5. Each Bid must be accompanied by a Bid Security payable to the Owner for ten percent (10%) of the total amount of the base Bid. A cashier's check made payable to the Owner, a certified check made payable to the Owner, or cash in the appropriate amount may be used in lieu of a Bid Bond. In no event will security submitted by unsuccessful Bidders be held by the Owner for more than 60 days from the time of award of the Contract. The Bid Security of the successful Bidder will be retained until the Performance Bond and the Payment Bond have been executed and approved, after which the Bid Security will be returned.
6. A Performance Bond and a Payment Bond in the amount of One Hundred percent (100%) each of the Contract Price, with a Corporate Surety approved by the Owner and the Engineer, will be required for the faithful performance of the Contract. The Bidder shall state in the proposal the name and address of the Surety or Sureties, with Certificate Numbers, who will sign the Bonds in case the Contract is awarded to him.
7. The party to whom the Contract is awarded will be required to execute the Contract Agreement, Performance Bond and Payment Bond within ten (10) calendar days from the date when the written

notice of the award of the Contract is mailed to the Bidder at the address given by him. In case of failure to do so, the Owner may at its option, consider that the Bidder has abandoned the Contract, in which case, the Bid Security accompanying the proposal shall become the property of the Owner and award may be made to another party. Corporations must furnish a certificate attesting to corporate existence and authority of officers to sign contracts and other documents.

8. **The Contractor shall begin Work within fourteen (14) calendar days** after receiving the Notice to Proceed by the Owner. The Notice to Proceed will be issued on a date mutually agreed upon by the Owner and Contractor. However, the Notice to Proceed will be issued no later than sixty (60) calendar days following issuance of the Notice of Award. The Contractor shall **complete all Work within one hundred fifty (150) calendar days following the date of the Notice to Proceed**. Time is of the essence and time of completion as specified will be enforced.
9. The Contractor's attention is called to the Agreement, Section 4.03 addressing Liquidated Damages. It is agreed that the Contractor shall be liable for and shall pay to the Owner, as liquidated damages and not as a penalty, the listed sum per day for each calendar day of delay in completion of the Work from the calendar days allowed as specified herein or in any written extension of time granted by the Owner. Liquidated damages will be deducted from final payments. Liquidated damages in the amount of **\$1,500** per day will be assessed for each day that the project is not substantially complete within the contract time allowed.
10. Before the award of the Contract, any Bidder may be required to furnish evidence satisfactory to the Owner and to the Engineer of the necessary facilities, ability, and pecuniary resources to fulfill the conditions of the Contract.
11. Prior to signing the Contract, the successful Bidder shall submit, on a form acceptable to the Owner and Engineer, an overall construction schedule for the project. This schedule shall start with the proposed date of signing the Contract, and the completion date shall be no later than the date specified in the Contract.
12. Bidders must satisfy themselves by personal examination of the location of the proposed work, and by examination of the Plans and Specifications as to the requirements of the Work and the accuracy of the estimate of the quantities of the work to be done, and shall not at any time after the submission of the Bid dispute or complain of such estimate nor assert that there was any misunderstanding in regard to the nature or amount of work to be done.
13. The Contract and the Specifications contain the provisions required for the construction of the project. No information obtained from any officer, agent, consultant, or employee of the Owner on any such matters shall in any way affect the risk or obligation assumed by the successful Bidder or relieve him from fulfilling any of the conditions of the Contract.
14. Proposals which are incomplete, unbalanced, conditional or obscure or which contain additions not called for, erasures, alterations or irregularities of any kind or which do not comply with the Notice to Bidders and Instruction to Bidders may be rejected at the option of the Owner.
15. A Bidder may withdraw any proposal he has submitted at any time prior to the hour set for the closing of the Bids provided the request for withdrawal is signed in a manner identical with the proposal being withdrawn. No withdrawal or modification will be permitted after the hour designated for closing the Bids. The Bidder's Proposal shall then hold firm for sixty (60) days to enable the Owner to complete pre-construction arrangements prior to issuing any Notice of Award.

16. Computation of quantities that will be the basis for payment estimates, both monthly and final, will be made by the Engineer.
17. If any person contemplating submitting a Bid for the proposed Contract is in doubt as to the true meaning of any part of the Plans and Specifications or other Contract Documents, or finds discrepancies in, or omissions from the Plans and Specifications, he may submit to the Owner a written Request For Interpretation or correction thereof. The person submitting the request will be responsible for its prompt delivery. Any interpretation or correction of the Contract Documents will be made only by Addendum duly issued and a copy of such Addendum will be mailed or delivered to each Bidder receiving a set of such Contract Documents. The Owner will not be responsible for any other explanations or interpretations of the Contract Documents. No oral interpretations of any provision in the Contract Documents will be made to any Bidder.
18. No substitution of subcontractors by the Bidder will be allowed or permitted except in accordance with the provisions of Public Contract Code Sections 4107 and 4107.5.
19. The award of the contract, if made, will be within **sixty (60) calendar days** after the opening of bids, and satisfactory submittal of materials required prior to the formal award.
20. The Owner reserves the right to accept or reject any or all bids, to evaluate the bids submitted, and to award the Contract according to the proposal which best serves the interests of the Owner.

END OF SECTION

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**SECTION 00 41 43**

**BIDDER'S PROPOSAL**

**To the City of Corcoran, (hereinafter the Owner):**

The undersigned, as Bidder, declares that the only persons, or parties interested in this proposal as principals are those named herein, that this proposal is made without collusion with any other person, firm or corporation; that he has carefully examined the location of the proposed work, the annexed proposed form of contract, and the Plans therein referred to; and he proposes and agrees if this proposal is accepted, that he will contract with the Owner to provide all necessary machinery, tools, apparatus and other means of construction, and to do all the work and furnish all the materials specified in the contract in the manner and time therein prescribed, and according to the requirements of the Engineer as therein set forth, and that he will take in full payment therefor the following unit prices and/or lump sum set forth in the following schedule, to-wit:

If this proposal shall be accepted and the undersigned shall fail to contract, as aforesaid, and to give the two bonds in the sums to be determined as aforesaid, with surety satisfactory to the Owner, within ten (10) days not including Sundays and legal holidays, after the Bidder has received Notice of Award of the contract, the Owner, at its option, may determine that the Bidder has abandoned the contract, and thereupon this proposal and the acceptance thereof shall be null and void, and the forfeiture of such security accompanying this proposal shall operate and the same shall be the property of the Owner. Owner shall then be free to accept the bid of another bidder.

Construction of Wastewater Treatment Plant Modifications for the following unit prices:

Item No.	Estimated Quantity	Unit of Measure	Item	Unit Price (in figures)	Extension Price (in figures)
1.	1	LS	Mobilization, Bonds, and Insurance		
2.	1	LS	Construction of Modifications to Secondary Treatment Plant located on Plymouth Avenue.		
3.	1	LS	Replacement of Effluent Pump 2		
4.	1	LS	Replacement of Sludge Pump 2		
5.	3	EA.	Replacement of Effluent Pump Suction Plug Valves		
6.	4	EA.	Replacement of Sludge/Scum Suction Piping Plug Valves		
<b>TOTAL BASE BID</b>					

Total \_\_\_\_\_ Base \_\_\_\_\_ Bid \_\_\_\_\_ in  
 words \_\_\_\_\_  
 \_\_\_\_\_ (dollars)

**Bid Alternatives**

Item No.	Estimated Quantity	Unit of Measure	Item	Unit Price (in figures)	Extension Price (in figures)
1.	2	EA	Replacement of Effluent Pump 1 and 3		
2.	2	EA	Replacement of Sludge/Scum Pump 1 and 3		
<b>TOTAL BID ALTERNATIVES</b>					

Total \_\_\_\_\_ Alternative \_\_\_\_\_ Bid \_\_\_\_\_ in  
 words \_\_\_\_\_  
 \_\_\_\_\_ (dollars)

The above bid items include the provision for adequate sheeting, shoring and bracing or equipment method for the protection of life or limb, which shall conform too applicable safety orders.

Bidder agrees that in case of a discrepancy between the price stated in words and the price stated in figures, the words will prevail.

**The representations made herein are made under the penalty of perjury.**

The work is to be constructed in accordance with the Contract Documents annexed hereto.

The work to be done is shown on a set of Drawings, entitled: "2020 WASTEWATER TREATMENT PLANT MODIFICATIONS", included in the Contract Documents.

In submitting this Bid, Bidder represents, as set forth in the Agreement, that:

Bidder has visited the Site and became familiar with and is satisfied as to the general, local, and site conditions that may affect cost, progress, and performance of the Work.

Bidder has examined and carefully studied the Contract Documents, the other related data identified in the Contract Documents and the following Addenda, receipt of all which is hereby acknowledged.

Addendum No.	Addendum Date
_____	_____
_____	_____
_____	_____
_____	_____

Bids are required for the entire work. Bids will be compared on the basis of the lump sum base bid. The project will be awarded to the lowest responsible Bidder.

Accompanying this proposal is a Bid Security in the form of Cash, Certified Check or Bid Bond amount that equals at least ten percent (10%) of the total amount of the base bid.

**BIDDER:** \_\_\_\_\_

The names of all persons interested in the foregoing proposals as principals are as follows:

**IMPORTANT NOTICE:** *If Bidder or other interested person is a corporation, state legal name of corporation, also names of the president, secretary, treasurer and manager thereof; if a co-partnership, state true name of firm, also names of all individual co-partners composing firm; if Bidder or other interested person is an individual, state first and last name in full.*

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Licensed in accordance with an act providing for the registration of Contractors:

Class \_\_\_\_\_ License No. \_\_\_\_\_ Expiration date \_\_\_\_\_

DIR Contractor Registration No. \_\_\_\_\_

By \_\_\_\_\_  
Signature of Bidder Dated

**NOTE:** *If Bidder is a corporation, the legal name of the corporation shall be set forth above together with the seal and signature of the officer or officers authorized to sign contracts on behalf of the corporation; if Bidder is a co-partnership, the true name of the firm shall be set forth above together with the signature of the partner or partners authorized to sign contracts on behalf of the co-partnership; and if Bidder is an individual, his signature shall be placed above. If signature is by an agent, other than an officer of a corporation or member of a partnership, a Power of Attorney must be on file with the Owner prior to opening bids or submitted with the bid; otherwise, the bid will be disregarded as irregular and unauthorized.*

BUSINESS ADDRESS: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

BUSINESS PHONE: \_\_\_\_\_

CONTACT NAME: \_\_\_\_\_

CONTACT EMAIL: \_\_\_\_\_

**END OF SECTION**

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**SECTION 00 43 13**

**BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,

\_\_\_\_\_  
as Principal, and \_\_\_\_\_ as Surety, are hereby held and firmly bound  
unto City of Corcoran, as OWNER, in the penal sum of \_\_\_\_\_  
\_\_\_\_\_  
Dollars (\$ \_\_\_\_\_), for the payment  
of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and  
assigns

Signed, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

The Condition of the above obligation is such that whereas the Principal has submitted to  
a certain BID attached hereto and hereby made a part hereof to enter into a contract in writing, for the

**2020 Wastewater Treatment Plant Modifications**

NOW, THEREFORE,

- (a) If said bid shall be rejected, or
- (b) If said bid shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said bid) and shall furnish bonds for his faithful performance of said contract and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said bid, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall in no way be impaired or affected by any extension of the time within which the Owner may accept such bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

\_\_\_\_\_  
Principal (L.S.)

\_\_\_\_\_  
Surety

\_\_\_\_\_  
California Surety Number

\_\_\_\_\_  
Seal

**IMPORTANT** – Surety companies executing bonds must appear on the Treasury Department’s most current list (Circular 570 as amended) and be authorized to transact business in the state of California.

**END OF SECTION**

**SECTION 00 43 36**

**LIST OF SUBCONTRACTORS**

The Bidder shall provide the name, the location of the place of business, the California contractor license number, and public works contractor registration number issued pursuant to Section 1725.5 of the Labor Code of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent of the prime contractor's total bid.

Please fill out as completely as possible when submitting your bid. Use subcontractor's business name as registered with the Contractors State License Board.

1. State the name, place of business, contractor's license number and public works contractor registration number of each subcontractor.
2. State the portion of the Work that will be done by each subcontractor. List only one subcontractor for each portion as defined by the Bid. [Work not listed as subcontracted shall be performed by Bidder.]
3. List the dollar value or percentage of total bid for the work to be subcontracted.
4. Subcontractors may not be substituted except as allowed. Subcontractor substitution procedure will be in accordance with State Contracts Code Section 4100, et seq.

**SUBCONTRACTOR NAME:** \_\_\_\_\_

Business Address: \_\_\_\_\_

Class \_\_\_\_\_ License No. \_\_\_\_\_ Public Works Contractor Regist. No. \_\_\_\_\_

Item No. or Description of Work: \_\_\_\_\_

Dollar Amount or Percentage of Total Bid: \_\_\_\_\_

**SUBCONTRACTOR NAME:** \_\_\_\_\_

Business Address: \_\_\_\_\_

Class \_\_\_\_\_ License No. \_\_\_\_\_ Public Works Contractor Regist. No. \_\_\_\_\_

Item No. or Description of Work: \_\_\_\_\_

Dollar Amount or Percentage of Total Bid: \_\_\_\_\_

**SUBCONTRACTOR NAME:** \_\_\_\_\_

Business Address: \_\_\_\_\_

Class \_\_\_\_\_ License No. \_\_\_\_\_ Public Works Contractor Regist. No. \_\_\_\_\_

Item No. or Description of Work: \_\_\_\_\_

Dollar Amount or Percentage of Total Bid: \_\_\_\_\_



**SUBCONTRACTOR NAME:** \_\_\_\_\_

Business Address: \_\_\_\_\_

Class \_\_\_\_\_ License No. \_\_\_\_\_ Public Works Contractor Regist. No. \_\_\_\_\_

Item No. or Description of Work: \_\_\_\_\_

Dollar Amount or Percentage of Total Bid: \_\_\_\_\_

**SUBCONTRACTOR NAME:** \_\_\_\_\_

Business Address: \_\_\_\_\_

Class \_\_\_\_\_ License No. \_\_\_\_\_ Public Works Contractor Regist. No. \_\_\_\_\_

Item No. or Description of Work: \_\_\_\_\_

Dollar Amount or Percentage of Total Bid: \_\_\_\_\_

**SUBCONTRACTOR NAME:** \_\_\_\_\_

Business Address: \_\_\_\_\_

Class \_\_\_\_\_ License No. \_\_\_\_\_ Public Works Contractor Regist. No. \_\_\_\_\_

Item No. or Description of Work: \_\_\_\_\_

Dollar Amount or Percentage of Total Bid: \_\_\_\_\_

**SUBCONTRACTOR NAME:** \_\_\_\_\_

Business Address: \_\_\_\_\_

Class \_\_\_\_\_ License No. \_\_\_\_\_ Public Works Contractor Regist. No. \_\_\_\_\_

Item No. or Description of Work: \_\_\_\_\_

Dollar Amount or Percentage of Total Bid: \_\_\_\_\_

**SUBCONTRACTOR NAME:** \_\_\_\_\_

Business Address: \_\_\_\_\_

Class \_\_\_\_\_ License No. \_\_\_\_\_ Public Works Contractor Regist. No. \_\_\_\_\_

Item No. or Description of Work: \_\_\_\_\_

Dollar Amount or Percentage of Total Bid: \_\_\_\_\_

**SUBCONTRACTOR NAME:** \_\_\_\_\_

Business Address: \_\_\_\_\_

Class \_\_\_\_\_ License No. \_\_\_\_\_ Public Works Contractor Regist. No. \_\_\_\_\_

Item No. or Description of Work: \_\_\_\_\_

Dollar Amount or Percentage of Total Bid: \_\_\_\_\_

**SECTION 00 43 93**

**BIDDER'S CHECKLIST**

**SUBMIT THIS BIDDER'S CHECKLIST WITH YOUR BID DOCUMENTS.**

Bidders shall complete and submit all documents listed below for bids to be considered responsive.

**REQUIRED**

1. Section 00 41 43 – Bidders Proposal
2. Acknowledgment of receipt of all issued Addenda (In Bidder's proposal)
3. Section 00 43 36 – List of Subcontractors
4. Section 00 45 13 – Qualification Statement
5. Section 00 45 16 - Non-Collusion Affidavit
6. Section 00 45 26 – Workers Compensation Certification
7. Section 00 45 47 – PCC 10162 – Questionnaire on Disqualification
8. Bid Security attached to front of Proposal in the form of (check one):

- |  |   |
|--|---|
| <input type="checkbox"/> Certified Check | <input type="checkbox"/> Bidder's Bond (Section 00 43 13) |
| <input type="checkbox"/> Cashier's Check | <input type="checkbox"/> Cash                             |

**SUBMITTED BY:**

Name of Contractor \_\_\_\_\_

Contact Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone No. \_\_\_\_\_ Fax No. \_\_\_\_\_

Contractor's License No. \_\_\_\_\_ Class: \_\_\_\_\_ Expiration date \_\_\_\_\_

Documents required in the list but not included with your bid may render your bid non-responsive and ineligible for award. Bids received by the scheduled bid opening time will be opened and publicly read but are subject to verification that all required documents have been submitted.

**END OF SECTION**

**SECTION 00 45 13**

**QUALIFICATION STATEMENT**

PROJECT: City of Corcoran  
2020 Wastewater Treatment Plant Modification

TO: City Council, City of Corcoran

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

---

(Name of Organization)

---

(Owner, Partner, Corporate Officer (list title), Co-Venturer)

---

**1) EXPERIENCE AND REFERENCES**

List three (3) or more past or current projects of similar value and scope to this project completed within the past five years:

Project 1

Past or current project name and location	Project description	Owner
Contract amount (\$) and completion date	Reference contact person name and phone number	

Project 2

Past or current project name and location	Project description	Owner
Contract amount (\$) and completion date	Reference contact person name and phone number	

Project 3

Past or current project name and location	Project description	Owner
Contract amount (\$) and completion date	Reference contact person name and phone number	

**2) CONTRACTOR FINANCIAL INFORMATION**

- a) List name, address, and phone number of the bonding company used by your organization.

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b) List name, address, and phone number of a banking institution familiar with your organization.

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c) State whether your organization has been subject of bankruptcy, failed business, or failed to complete a contract.

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Signed: \_\_\_\_\_

\_\_\_\_\_  
Name

\_\_\_\_\_  
Date

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**SECTION 00 45 16**

**NON-COLLUSION AFFIDAVIT**

(To Be Executed by Bidder and Submitted with Bid)

**City of Corcoran – 2020 Wastewater treatment Plant Modifications**

**To: City Council, City of Corcoran**

\_\_\_\_\_  
(Name)

being first duly sworn, deposes and says that he or she is

\_\_\_\_\_  
(Owner, Partner, Corporate Officer (list title), Co-Venturer)

of \_\_\_\_\_  
(Bidding Entity)

The party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

The Bidder declares that neither the Bidder or any subcontractor to be engaged by the Bidder has been convicted of any offense referred to in the California Public Contract Code.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on \_\_\_\_\_[date], at \_\_\_\_\_-[city], \_\_\_\_\_[state].

Signed: \_\_\_\_\_

Address \_\_\_\_\_ Phone \_\_\_\_\_

**SECTION 00 45 26**

**WORKER'S COMPENSATION CERTIFICATION**

STATE OF CALIFORNIA )

( SS

COUNTY OF KINGS )

The undersigned is aware of the provisions of Section 3700 of the Labor Code of the State of California which require every employer to be insured against liability of worker's compensation or to undertake self-insurance in accordance with the provisions of that code, and the undersigned will comply with such provisions, and will require all subcontractors to comply with such provisions, before commencing the performance of the work of this Contract.

\_\_\_\_\_  
Date:

\_\_\_\_\_  
Contractor

\_\_\_\_\_  
Contractor Authorized Signature

END OF SECTION



**SECTION 00 45 47**

**PUBLIC CONTRACT CODE SECTION 10162**

**(To Be Executed by Bidder and Submitted with Bid)**

In accordance with Public Contract Code Section 10162, the Bidder shall complete, under penalty of perjury, the following questionnaire:

Has the Bidder, any officer of the Bidder, or any employee of the Bidder who has proprietary interest in the Bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of law or a safety regulation?

Yes \_\_\_\_\_ No \_\_\_\_\_

If the answer is Yes, explain the circumstances in the space below:

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NOTE: The above Questionnaire is part of the Proposal.

Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

By \_\_\_\_\_  
Signature of Bidder

\_\_\_\_\_  
Date

AGREEMENT  
BETWEEN OWNER AND CONTRACTOR  
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)

THIS AGREEMENT is by and between City of Corcoran (“Owner”) and  
\_\_\_\_\_ (“Contractor”).

Owner and Contractor hereby agree as follows:

**ARTICLE 1 – WORK**

- 1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: ***2020 Wastewater Treatment Plant Modifications***

**ARTICLE 2 – THE PROJECT**

- 2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows : ***2020 Wastewater Treatment Plant Modifications***

**ARTICLE 3 – ENGINEER**

- 3.01 The part of the Project that pertains to the Work has been designed by **W3i Engineering**.
- 3.02 The Owner has retained W3i Engineering (“Engineer”) to act as Owner’s representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents..

**ARTICLE 4 – CONTRACT TIMES**

- 4.01 *Time of the Essence*
- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.
- 4.02 *Contract Times: Days*
- A. The Work will be substantially completed within **150** calendar days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within   0   days after the date when the Contract Times commence to run.
- 4.03 *insurance Damages*
- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of

requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Substantial Completion: Contractor shall pay Owner \$1,200 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$600 for each day that expires after such time until the Work is completed and ready for final payment.
3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

## **ARTICLE 5 – CONTRACT PRICE**

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

- A. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

## **ARTICLE 6 – PAYMENT PROCEDURES**

### **6.01 *Submittal and Processing of Payments***

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

### **6.02 *Progress Payments; Retainage***

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 25th day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.
  1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract
    - a. 90 percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and
    - b. 50 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).

- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 100 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less 200 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

#### 6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

### **ARTICLE 7 – CONTRACTOR'S REPRESENTATIONS**

7.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:

- A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
- B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
- E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.
- F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

- J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

## **ARTICLE 8 – CONTRACT DOCUMENTS**

### **8.01 Contents**

- A. The Contract Documents consist of the following:
1. This Agreement
  2. Performance bond.
  3. Payment bond
  4. General Conditions
  5. Supplementary Conditions
  6. Specifications as listed in the table of contents of the Project Manual.
  7. Drawings (not attached but incorporated by reference) consisting of 38 sheets with each sheet bearing the following general title: **2020 Wastewater Treatment Plant Modifications**
  8. Addenda (numbers  to , inclusive).
  9. Exhibits to this Agreement (enumerated as follows):
    - a. Contractor's Bid (pages  to , inclusive).
  10. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
    - a. Notice to Proceed.
    - b. Work Change Directives.
    - c. Change Orders.
    - d. Field Orders.
- B. The documents listed in Paragraph 8.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 8.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

## **ARTICLE 9 – MISCELLANEOUS**

### **9.01 Terms**

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

### **9.02 Assignment of Contract**

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation,

money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

9.03 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

9.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

9.05 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
  - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
  - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
  - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
  - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

9.06 *Other Provisions*

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are based on EJCDC® C-700, Standard General Conditions for the Construction Contract, published by the Engineers Joint Contract Documents Committee®, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on \_\_\_\_\_ (which is the Effective Date of the Contract).

1.

OWNER:

CONTRACTOR:

City of Corcoran \_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

*(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)*

Attest: \_\_\_\_\_

Attest: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Address for giving notices:

Address for giving notices:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

License No.: \_\_\_\_\_  
*(where applicable)*

*(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)*

**NOTE TO USER:** Use in those states or other jurisdictions where applicable or required.

## PERFORMANCE BOND

CONTRACTOR *(name and address):*

SURETY *(name and address of principal place of business):*

OWNER ***City of Corcoran, 832 Whitley Avenue, Corcoran, California 93212***

### CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location):*

### BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount: **100% of Contract Award**

Modifications to this Bond Form: ☐ None ☐ See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

### CONTRACTOR AS PRINCIPAL

### SURETY

\_\_\_\_\_  
Contractor's Name and Corporate Seal

\_\_\_\_\_  
Surety's Name and Corporate Seal

By: \_\_\_\_\_  
Signature

By: \_\_\_\_\_  
Signature *(attach power of attorney)*

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Attest: \_\_\_\_\_  
Signature

Attest: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

**Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.**



1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence,

to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

#### 14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims

for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

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## PAYMENT BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER ***City of Corcoran, 832 Whitley Avenue, Corcoran, California 93212***

### CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location)*:

### BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:

Amount: **100% of Contract Award**

Modifications to this Bond Form: ☐ None ☐ See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

### CONTRACTOR AS PRINCIPAL

### SURETY

\_\_\_\_\_  
*(seal)*

Contractor's Name and Corporate Seal

\_\_\_\_\_  
*(seal)*

Surety's Name and Corporate Seal

By: \_\_\_\_\_

Signature

By: \_\_\_\_\_

Signature *(attach power of attorney)*

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Attest: \_\_\_\_\_

Signature

Attest: \_\_\_\_\_

Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

**Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.**

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
  - 5.1 Claimants who do not have a direct contract with the Contractor,
    - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
    - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
  - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
  - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
  - 7.2 Pay or arrange for payment of any undisputed amounts.
  - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

**16. Definitions**

**16.1 Claim:** A written statement by the Claimant including at a minimum:

1. The name of the Claimant;
2. The name of the person for whom the labor was done, or materials or equipment furnished;
3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
4. A brief description of the labor, materials, or equipment furnished;
5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
7. The total amount of previous payments received by the Claimant; and

8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

**16.2 Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

**16.3 Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

**16.4 Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

**16.5 Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

18. Modifications to this Bond are as follows:

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## SP01 SPECIAL PROVISIONS



# **SPECIAL PROVISIONS OF THE CONSTRUCTION CONTRACT**

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## **SP01 SPECIAL PROVISIONS**

### **SP1.01 Additional Bid Proposal Forms**

#### **AMERICANS WITH DISABILITIES ACT COMPLIANCE CERTIFICATE**

##### **To Accompany Bid Form**

By submission of a bid, the BIDDER certifies it will comply with the Americans with Disabilities Act, 42 U.S.C., 12101 et. seq., and will maintain compliance throughout the life of this Contract. By commencing performance of the Contract work, the selected BIDDER certifies to the Americans with Disabilities Act compliance.

Company: \_\_\_\_\_

Business Address: \_\_\_\_\_

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Note:** Failure to complete the blanks may be grounds for rejecting the bid.

## **CERTIFICATE OF NONSEGREGATED FACILITIES (BIDDERS/SUBCONTRACTORS)**

### **To Accompany Bid Form**

1. "Segregated facilities," as used in this provision, means any waiting rooms, work areas, restrooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise.
2. By the submission of a bid, the BIDDER certifies that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The BIDDER agrees that a breach of this certification is a violation of the Equal Opportunity clause in the contract.
3. By submission of the bid, the BIDDER further agrees that (except where it has obtained identical certifications from proposed SUBCONTRACTORS for specific time periods) it will:
  - a. Obtain identical certifications from proposed SUBCONTRACTORS before the award of subcontracts under which the SUB-BIDDER will be subject to the Equal Opportunity clause;
  - b. Retain such certifications in its files; and
  - c. Forward this certification and the following notice to the proposed SUBCONTRACTORS:

#### **NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT FOR CERTIFICATION OF NONSEGREGATED FACILITIES**

A certificate of Nonsegregated Facilities must be submitted before the award of a subcontract under which the SUBCONTRACTOR will be subject to the Equal Opportunity clause. The certification may be submitted either for each SUBCONTRACTOR or for all subcontracts during a period (i.e., quarterly, semi-annually, or annually).

4. By commencing performance of the Contract work, the selected BIDDER certifies to the Nonsegregated Facilities provisions above.

Company: \_\_\_\_\_

Business Address: \_\_\_\_\_

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**DRUG-FREE WORKPLACE CERTIFICATION**

STD.21 (REV.12-93)

*I, the official named below, hereby swear that I am duly authorized legally to bind the contractor or grant recipient to the certification described below. I am fully aware that this certification, executed on the date below, is made under penalty of perjury under the laws of the State of California.*

CONTRACTOR/BIDDER FIRM NAME	FEDERAL ID NUMBER
BY(Authorized Signature)	DATE EXECUTED
PRINTED NAME AND TITLE OF PERSON SIGNING	TELEPHONE NUMBER (Include Area Code)  (       )
TITLE	
CONTRACTOR/BIDDER FIRM'S MAILING ADDRESS	

The contractor or grant recipient named above hereby certifies compliance with Government Code Section 8355 in matters relating to providing a drug-free workplace. The above named contractor or grant recipient will:

1. 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).
2. Establish a Drug-Free Awareness Program as required by Government Code Section 8355(b), to inform employees about all of the following:
  - (a) The dangers of drug abuse in the workplace,
  - (b) The person's or organization's policy of maintaining a drug-free workplace,
  - (c) Any available counseling, rehabilitation and employee assistance programs, and
  - (d) Penalties that may be imposed upon employees for drug abuse violations.
3. Provide as required by Government Code Section 8355©, that every employee who works on the proposed contract or grant:
  - (a) Will receive a copy of the company's drug-free workplace policy statement, and
  - (b) Will agree to abide by the terms of the company's statement as a condition of employment on the contract or grant.
4. At the election of the contractor or grantee, from and after the "Date Executed" and until \_\_\_\_\_ (NOT TO EXCEED 36 MONTHS), the state will regard this certificate as valid for all contracts or grants entered into between the contractor or grantee and this state agency without requiring the contractor or grantee to provide a new and individual certificate for each contract or grant. If the contractor or grantee elects to fill in the blank date, then the terms and conditions of this certificate shall have the same force, meaning effect and enforceability as if a certificate were separately, specifically, and individually provided for each contract or grant between the contractor or grantee and this state agency.

## NONLOBBYING CERTIFICATION FOR FEDERAL-AID CONTRACTS

### To Accompany Bid Form

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

5. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal 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.
6. If any funds other than Federal appropriated funds have been paid or will be paid to any persons for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress in connection with this Federal contract, grant, loan or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such sub recipients shall certify and disclose accordingly.

Company: \_\_\_\_\_

Business Address: \_\_\_\_\_

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Note:** Failure to complete the blanks may be grounds for rejecting the bid.

## DISCLOSURE OF LOBBYING ACTIVITIES

COMPLETE THIS FORM TO DISCLOSE LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

<b>1. Type of Federal Action:</b> <input type="checkbox"/> a. contract <input type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	<b>2. Status of Federal Action:</b> <input type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	<b>3. Report Type:</b> <input type="checkbox"/> a. initial <input type="checkbox"/> b. material change  For Material Change Only: year _____ quarter _____ date of last report _____
---	---	--

4. Name and Address of Reporting Entity

☐ Prime                  ☐ Subawardee  
    Tier \_\_\_\_\_, if known

Congressional District, if known \_\_\_\_\_

6. Federal Department/Agency: \_\_\_\_\_

8. Federal Action Number, if known: \_\_\_\_\_

10. a. Name and Address of Lobby Entity  
       (If individual, last name, first name, MI)

b. Individuals Performing Services (including address if different from No. 10a)  
       (last name, first name, MI)

(attach Continuation Sheet(s) if necessary)

11. Amount of Payment (check all that apply) \$_____ <input type="checkbox"/> actual <input type="checkbox"/> planned	13. Type of Payment (check all that apply) <input type="checkbox"/> a. retainer <input type="checkbox"/> b. one-time fee <input type="checkbox"/> c. commission <input type="checkbox"/> d. contingent fee <input type="checkbox"/> e. deferred <input type="checkbox"/> f. other, specify _____
--	--

12. Form of Payment (check all that apply):  
☒ a. cash  
☐ b. in-kind; specify: nature \_\_\_\_\_ value \_\_\_\_\_

14. Brief Description of Services Performed or to be performed and Date(s) of Service, including officer(s), employee(s), or member(s) contacted, for Payment Indicated in Item 11:

(attach Continuation Sheet(s) if necessary)

15. Continuation Sheet(s) attached:                  Yes ☐     No ☐

16. Information requested through this form is authorized by Title 31 U.S.C. Section 1352. This disclosure of lobbying reliance was placed by the tier above when his transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to Congress semiannually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Signature: \_\_\_\_\_  
 Print Name: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Telephone No.: \_\_\_\_\_ Date: \_\_\_\_\_

Authorized for Local Reproduction  
Standard Form - LLL

## COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG) CERTIFICATIONS

### To Accompany Bid Form

The BIDDER hereby assures and certifies that it will comply with the CDBG and other federal requirements, regulations, policies, guidelines and requirements with respect to the acceptance and use of Federal Funds for this federally assisted project:

Company: \_\_\_\_\_

Business Address: \_\_\_\_\_

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Note:** Failure to complete the blanks may be grounds for rejecting the bid.

## **SUBCONTRACTORS LIST**

Pursuant to the provisions of Sections 4100 to 4113, inclusive, of the Government Code of the State of California, and the provisions of Section 2-1.10 "Subcontractor List," of the Standard Specifications, the undersigned hereby designates below, for the project, opposite various portions of the work, the names and locations of the places of business of each subcontractor who will perform work or labor in an amount in excess of one-half of one percent ( $1/2$  of 1%) of the total bid or \$10,000, whichever is greater. In each instance, the nature and extent of the work to be sublet shall be described.

The general Contractor to whom the contract is awarded will not be permitted, without the written consent of the Engineer, to substitute any person as subcontractor in place of the subcontractor designated in the original bid, or to permit any subcontract to be assigned or transferred, or to allow it to be performed by anyone other than the original subcontractor. The Engineer may consent to the substitution of another person as subcontractor, if the original subcontractor, after having reasonable opportunity to do so, shall fail or refuse to execute, when said written contract is based upon the conditions of the general contract and complies with the subcontractor's written bid.

The failure of the Contractor to specify a subcontractor for any portion of the contract work in excess of one-half of one percent or \$10,000 of the total contract price shall be deemed to indicate that the Contractor intends to perform such portion himself. The subletting or subcontracting of work for which is in excess of one-half of one percent ( $1/2$  of 1%) of the total bid or \$10,000, whichever is greater, will be allowed only with the written consent of the Engineer.

**See next page for subcontractor list.**



Item No. and Description of Work	Subcontractor Name, Address & Phone No.	Department of Industrial Relations (DIR) Number	Subcontractor License No.

Company: \_\_\_\_\_

Business Address: \_\_\_\_\_

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Note:** Failure to complete the blanks may be grounds for rejecting the bid.

**FORM FHWA-1273 REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONTRACTS  
CERTIFICATION**

The work herein proposed will be financed in whole or in part with Federal funds, and therefore all of the statutes, rules, and regulations promulgated by the Federal Government and applicable to work financed in whole or in part with Federal funds will apply to such work.

The bidder certifies that it is aware of and will comply with all Federal requirements for projects financed in whole or in part with Federal funds. For specific requirements, see Appendix A of these specifications.

The above Certificate is part of the Proposal. Signing this Proposal on the signature page thereof shall also constitute signature of this Certificate.

The bidder, as prime contractor, agrees to incorporate the required contract provisions contained in Federal Form 1273 (included in Appendix A) by their physical inclusion in any subcontracts, lower tier subcontracts, and purchase orders for this project. The provisions may not be incorporated by reference.

The bidder, as prime contractor, also agrees to make copies of any subcontracts, lower tier subcontracts, and purchase orders for this project available to the City upon written request by the City.

Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Company: \_\_\_\_\_

Business Address: \_\_\_\_\_

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Note:** Failure to complete the blanks may be grounds for rejecting the bid.

**TITLE 49, CODE OF FEDERAL REGULATIONS, PART 29**

**DEBARMENT AND SUSPENSION CERTIFICATION**

The bidder \_\_\_\_\_, proposed subcontractor \_\_\_\_\_, under penalty of perjury, certifies that, except as noted below, he/she or any person associated therewith in the capacity of owner, partner, director, officer, manager:

is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency;

has not been suspended, debarred, voluntarily excluded or determined ineligible by any federal agency within the past 3 years;

does not have a proposed debarment pending; and

has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

If there are any exceptions to this certification, insert the exceptions in the following space:

( ) No Exceptions

\_\_\_\_\_  
\_\_\_\_\_

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted above, indicate below to whom it applies, initiating agency, and dates of action:

\_\_\_\_\_

Note: Providing false information may result in criminal prosecution or administrative sanctions.

The above certification is part of the Proposal. Signing the Proposal on the signature portion thereof shall also constitute signature of this Certification.

By my signature on this proposal, I certify, under penalty of perjury under the laws of the State of California and the United States of America, that the Title 23 United States Code, Section 112 Non-Collusion Affidavit and the Title 49 Code of Federal Regulations, Part 29 Debarment and Suspension Certification are true and correct.

Bidder/Subcontractor: \_\_\_\_\_

By: \_\_\_\_\_

Date: \_\_\_\_\_

Title: \_\_\_\_\_

## **SP1.02 Federal Lobbying Restrictions**

Section 1352, Title 31, United States Code prohibits Federal funds from being expended by the recipient or any lower tier sub recipient of a Federal-aid contract to pay for any person for influencing or attempting to influence a Federal agency or Congress in connection with the awarding of any Federal-aid contract, the making of any Federal grant or loan, or the entering into of any cooperative agreement.

If any funds other than Federal funds have been paid for the same purposes in connection with this Federal-aid contract, the recipient shall submit an executed certification and, if required, submit a completed disclosure form as part of the bid documents.

A certification for Federal-aid contracts regarding payment of funds to lobby Congress or a Federal agency is included in the Bid Proposal. Standard Form - LLL, "Disclosure of Lobbying Activities," with instructions for completion of the Standard Form is also included in the Bid Proposal. Signing the Bid Proposal shall constitute signature of the Certification.

The above referenced certification and disclosure of lobbying activities shall be included in each subcontract and any lower-tier contracts exceeding \$100,000. All disclosure forms, but not certifications, shall be forwarded from tier to tier until received by the Engineer.

The Contractor, subcontractors and any lower-tier contractors shall file a disclosure form at the end of each calendar quarter in which there occurs any event that requires disclosure or that materially affects the accuracy of the information contained in any disclosure form previously filed by the Contractor, subcontractors and any lower-tier contractors. An event that materially affects the accuracy of the information reported includes:

- (1) A cumulative increase of \$25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or
- (2) A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or
- (3) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal Action.

## **SP1.03 Subcontracting**

No subcontract releases the Contractor from the contract or relieves the Contractor of their responsibility for a subcontractor's work.

If the Contractor violates Pub Cont Code § 4100 et seq., the City of Corcoran may exercise the remedies provided under Pub Cont Code § 4110. The City of Corcoran may refer the violation to the Contractors State License Board as provided under Pub Cont Code § 4111.

The Contractor shall perform work equaling at least 30 percent of the value of the original total bid with the Contractor's own employees and equipment, owned or rented, with or without operators.

Each subcontract must comply with the contract.

Each subcontractor must have an active and valid State contractor's license with a classification appropriate for the work to be performed (Bus & Prof Code, § 7000 et seq.).

Submit copies of subcontracts upon request by the Engineer.

Before subcontracted work starts, submit a Subcontracting Request form.

Do not use a debarred contractor; a current list of debarred contractors is available at the Department of Industrial Relations' Web site at: <http://www.dir.ca.gov/dlse/debar.html>

Upon request by the Engineer, immediately remove and not again use a subcontractor who fails to prosecute the work satisfactorily.

Each subcontract and any lower tier subcontract that may in turn be made shall include the "Required Contract Provisions Federal-Aid Construction Contracts", located in Appendix A. Noncompliance shall be corrected. Payment for subcontracted work involved will be withheld from progress payments due, or to become due, until correction is made. Failure to comply may result in termination of the contract.

#### **SP1.04 Prompt Payment of Withheld Funds to Subcontractors**

The City shall hold retainage from the prime contractor and shall make prompt and regular incremental acceptances of portions, as determined by the City of Corcoran, of the contract work, and pay retainage to the prime contractor based on these acceptances. The prime contractor, or subcontractor, shall return all monies withheld in retention from a subcontractor within 30 days after receiving payment for work satisfactorily completed and accepted including incremental acceptances of portions of the contract work by the City of Corcoran. Federal law (49 CFR 26.29) requires that any delay or postponement of payment over 30 days may take place only for good cause and with the City of Corcoran's prior written approval. Any violation of this provision shall subject the violating prime contractor or subcontractor to the penalties, sanctions and other remedies specified in Section 7108.5 of the Business and Professions Code. These requirements shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the prime contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the prime contractor, deficient subcontract performance, or noncompliance by a subcontractor.

#### **SP1.05 Buy America Requirements**

In conformance with the law and regulations, furnish steel and iron materials to be incorporated into the work with certificates of compliance. Steel and iron materials must be produced in the U.S. except:

1. Foreign pig iron and processed, pelletized, and reduced iron ore may be used in the domestic production of the steel and iron materials [60 Fed Reg 15478 (03/24/1995)];
2. If the total combined cost of the materials does not exceed the greater of 0.1 percent of the total bid or \$2,500, materials produced outside the U.S. may be used.

Production includes:

1. Processing steel and iron materials, including smelting or other processes that alter the physical form or shape (such as rolling, extruding, machining, bending, grinding, and drilling) or chemical composition;
2. Coating application, including epoxy coating, galvanizing, and painting, that protects or enhances the value of steel and iron materials.

### **SP1.06 Section 3 Requirements**

This project is subject to Section 3 of the Housing and Urban Development Act of 1968, as amended. Section 3 is a statutory provision that targets economic Opportunities flowing from U.S. Department of Housing and Urban Development (HUD) assisted projects, to lower income residents and businesses in areas where HUD is investing public funds. This legislation stipulates that participants in HUD's assistance programs including recipients, consultants, and contractors are required to make good faith efforts to provide "to the greatest extent feasible" employment, training, and contracting opportunities to Section 3 residents and business. See HUD's A Compliance Guide to Section 3 of the Housing and Urban Development Act of 1968 or Contact the City of Corcoran Community Development Director for Specific Questions.

### **SP1.07 Labor Nondiscrimination**

Attention is directed to the following Notice that is required by Chapter 5 of Division 4 of Title 2, California Code of Regulations.

### **SP1.08 Prevailing Wage**

The general prevailing wage rates determined by the Director of Industrial Relations, for the county or counties in which the work is to be done, are available at the office of the City Clerk, City of Corcoran, . These wage rates are not included in the Bid Proposal for the project. Changes, if any, to the general prevailing wage rates will be available at the same location.

If there is a difference between the minimum wage rates predetermined by the U.S. Department of Labor and the Prevailing Wage Rates determined by the Director of the Department of Industrial Relations of the State of California for similar classifications of labor, the Contractor and his subcontractor shall pay not less than the higher wage rate. For the latest Prevailing Wage Rates from the U.S. Department of Labor, see the following website:

<http://www.wdol.gov/dba.aspx>

### **SP1.09 Removal of Asbestos and Hazardous Substances**

When the presence of asbestos or hazardous substances are not shown on the plans or indicated in the specifications and the Contractor encounters materials which the Contractor reasonably believes to be asbestos or a hazardous substance as defined in Section 25914.1 of the Health and Safety Code, and the asbestos or hazardous substance has not been rendered harmless, the Contractor may continue work in unaffected areas reasonably believed to be safe. The Contractor shall immediately cease work in the affected area and report the condition to the Engineer in writing.

In conformance with Section 25914.1 of the Health and Safety Code, removal of asbestos or hazardous substances including exploratory work to identify and determine the extent of the asbestos or hazardous substance will be performed by separate contract.

If delay of work in the area delays the current controlling operation, the delay will be considered a right of way delay and the Contractor will be compensated for the delay in conformance with the provisions in Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

#### **SP1.10 Laws to be Observed**

The Contractor shall keep himself fully informed of all existing and future State and National laws and County and Municipal Ordinances and Regulations which in any manner affect those engaged or employed in the work, or the materials used in the work, or which in any way affect the conduct of the work, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the work; and shall protect and indemnify the Owner and Engineer, and all of its employees and their officers and agents and servants against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by himself or his employees, if any discrepancy or inconsistency is discovered in the plans, drawings, specifications, or contract for the work in relation.

#### **SP1.11 Fair Labor Standards Act**

The attention of bidders is invited to the fact that the City has been advised by the Wage and Hour Division, U.S. Department of Labor, that contractors engaged in City construction work are required to meet the provisions of the Fair Labor Standards Act of 1938 and as amended (52 Stat. 1060).

The Contractor shall pay the higher of the prevailing rates designated by the California Department of Industrial Relations or those established by the U.S. Department of Labor. A listing of the U.S. Department of Labor Wages is available online at: [www.wdol.gov/dba.aspx](http://www.wdol.gov/dba.aspx).

#### **SP1.12 Contract Assurance**

The Contractor or his subcontractor(s) shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49CFR, Part 26 in the award and administration of DOT-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy, as the City deems appropriate.

#### **SP1.13 Erosion and Sediment Control**

The Contractor shall utilize Best Management Practices (BMP) to insure erosion and sediment control to inhibit the dislodging and transporting of soil particles by water or wind, including actions that limit the area of exposed soil and minimizing the time the soil is exposed.

The Contractor shall employ Storm Water Pollution Control Measures to include, as a minimum, the installation, maintenance, inspection, and repair of BMPs in accordance with the Water Pollution Control Plan (WPCP) included as part of the plan set.

## **SP1.14 Not Used**

## **SP1.15 Subletting or Assigning the Contract**

Section VI of Form FHWA 1273 regarding subletting or assigning the contract does not apply to this contract because this project is not on the National Highway System.

## **SP1.16 Title VI Assurances**

During the performance of this Agreement, the contractor, for itself, its assignees and successors in interest (hereinafter collectively referred to as CONTRACTOR agrees as follows:

- (1) Compliance with Regulations: CONTRACTOR shall comply with the regulations relative to nondiscrimination in federally assisted programs of the Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the REGULATIONS), which are herein incorporated by reference and made a part of this agreement.
- (2) Nondiscrimination: CONTRACTOR, with regard to the work performed by it during the AGREEMENT, shall not discriminate on the grounds of race, color, sex, national origin, religion, age, or disability in the selection and retention of sub-applicants, including procurements of materials and leases of equipment. CONTRACTOR shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the agreement covers a program set forth in Appendix B of the Regulations.
- (3) Solicitations for Sub-agreements, Including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by CONTRACTOR for work to be performed under a Sub-agreement, including procurements of materials or leases of equipment, each potential sub-applicant or supplier shall be notified by CONTRACTOR of the CONTRACTOR'S obligations under this Agreement and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.
- (4) Information and Reports: CONTRACTOR shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the California Department of Transportation or FHWA to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of CONTRACTOR is in the exclusive possession of another who fails or refuses to furnish this information, CONTRACTOR shall so certify to the California Department of Transportation or the FHWA as appropriate, and shall set forth what efforts CONTRACTOR has made to obtain the information.
- (5) Sanctions for Noncompliance: In the event of CONTRACTOR's noncompliance with the nondiscrimination provisions of this agreement, the California Department of Transportation shall impose such agreement sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:



- (a) withholding of payments to CONTRACTOR under the Agreement within a reasonable period of time, not to exceed 90 days; and/or
- (b) cancellation, termination or suspension of the Agreement, in whole or in part.

- (6) Incorporation of Provisions: CONTRACTOR shall include the provisions of paragraphs (1) through (6) in every sub-agreement, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto.

CONTRACTOR shall take such action with respect to any sub-agreement or procurement as the California Department of Transportation or FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance, provided, however, that, in the event CONTRACTOR becomes involved in, or is threatened with, litigation with a sub-applicant or supplier as a result of such direction, CONTRACTOR may request the California Department of Transportation enter into such litigation to protect the interests of the State, and, in addition, CONTRACTOR may request the United States to enter into such litigation to protect the interests of the United States.

### **SP1.17 Use of United States Flag Vessels**

The CONTRACTOR agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carries, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.
2. To Furnish within 20 days following the date of loading for shipments originating within the United State or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated "on-board" commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

## SP02 CDBG ATTACHMENTS

# SP02 CDBG ATTACHMENTS

## SP2.01 Hud Form 4010- Federal Labor Standard Provisions

### Federal Labor Standards Provisions

### U.S. Department of Housing and Urban Development Office of Labor Relations

#### Applicability

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

**A. 1. (i) Minimum Wages.** All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible, place where it can be easily seen by the workers.

(ii) (a) Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(b) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.)

(c) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

(d) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part

of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

**2. Withholding.** HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work, all or part of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

**3. (i) Payrolls and basic records.** Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(B) of the Davis-bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been

communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

(ii) (a) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i) except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this subparagraph for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to HUD or its designee. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149.)

(b) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5 (a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;



(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph A.3.(ii)(b).

(d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under subparagraph A.3.(i) available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### 4. Apprentices and Trainees.

(i) **Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who

is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) **Trainees.** Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by

the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

**(iii) Equal employment opportunity.** The utilization of apprentices, trainees and journeymen under 29 CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract.

**6. Subcontracts.** The contractor or subcontractor will insert in any subcontracts the clauses contained in subparagraphs 1 through 11 in this paragraph A and such other clauses as HUD or its designee may by appropriate instructions require, and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this paragraph.

**7. Contract termination; debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act Requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

**9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

**10. (i) Certification of Eligibility.** By entering into this contract the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be

awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

**(ii)** No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

**(iii)** The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1 01 0, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part: "Whoever, for the purpose of . . . influencing in any way the action of such Administration..... makes, utters or publishes any statement knowing the same to be false..... shall be fined not more than \$5,000 or imprisoned not more than two years, or both."

**11. Complaints, Proceedings, or Testimony by Employees.** No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

**B. Contract Work Hours and Safety Standards Act.** The provisions of this paragraph B are applicable where the amount of the prime contract exceeds \$100,000. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

**(1) Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

**(2) Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in subparagraph (1) of this paragraph.

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**(3) Withholding for unpaid wages and liquidated damages.** HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

**(4) Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

**C. Health and Safety.** The provisions of this paragraph C are applicable where the amount of the prime contract exceeds \$100,000.

**(1)** No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

**(2)** The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, (Public Law 91-54, 83 Stat 96). 40 USC 3701 et seq.

**(3)** The contractor shall include the provisions of this paragraph in every subcontract so that such provisions will be binding on each subcontractor. The contractor shall take such action with respect to any subcontractor as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

**SP2.02 HUD Form 2516- Contractor and Subcontractor Activity (MBE/WBE)**





<p>This report is to be completed by grantees, developers, sponsors, builders, agencies, and/or project owners for reporting contract and subcontract activities of \$10,000 or more under the following programs: Community Development Block Grants (entitlement and small cities); Urban Development Action Grants; Housing Development Grants; Multifamily Insured and Noninsured; Public and Indian Housing Authorities; and contracts entered into by recipients of CDBG rehabilitation assistance.</p> <p>Contracts/subcontracts of less than \$10,000 need be reported only if such contracts represent a significant portion of your total contracting activity. Include only contracts executed during this reporting period.</p> <p>This form has been modified to capture Section 3 contract data in columns 7g and 7i. Section 3 requires that the employment and other economic opportunities generated by HUD financial assistance for housing and community development programs shall, to the greatest extent feasible, be directed toward low- and very low-income persons, particularly those who are recipients of government assistance for housing. Recipients using this form to report Section 3 contract data must also use Part I of form HUD-60002 to report employment and training opportunities data. Form HUD-2516 is to be completed for public and Indian housing and most community development programs.</p> <p>Form HUD-60002 is to be completed by all other HUD programs including State administered community development programs covered under Section 3.</p> <p>A Section 3 contractor/subcontractor is a business concern that provides economic opportunities to low- and very low-income residents of the metropolitan area (or nonmetropolitan county), including a business concern that is 51 percent or more owned by low- or very low-income residents; employs a substantial number of low- or very low-income residents; or provides subcontracting or business development opportunities to businesses owned by low- or very low-income residents. Low- and very low-income residents include participants in Youthbuild programs established under Subtitle D of Title IV of the Cranston-Gonzalez National Affordable Housing Act.</p> <p>The terms "low-income persons" and "very low-income persons" have the same meanings given the terms in section 3(b)(2) of the United States Housing Act of 1937. Low-income persons mean families (including single persons) whose incomes do not exceed 80 per centum of the median income for the area, as determined by the Secretary, with adjustments for smaller and larger families, except that the Secretary may establish income ceilings higher or lower than 50 per centum of the median for the area on the basis of the Secretary's findings that such variations are necessary because of unusually high or low family incomes.</p> <p>Submit two (2) copies of this report to your local HUD Office within ten (10) days after the end of the reporting period you checked in item 4 on the front.</p> <p>Complete item 7h, only once for each contractor/subcontractor on each semi-annual report.</p> <p>Enter the prime contractor's ID in item 7i, for all contracts and subcontracts. Include only contracts executed during this reporting period. PHAs/IHAs are to report all contracts/subcontracts.</p>	<p>may establish income ceilings higher or lower than 80 per centum of the median for the area on the basis of the Secretary's findings that such variations are necessary because of prevailing levels of construction costs or unusually high or low-income families. Very low-income persons means low-income families (including single persons) whose incomes do not exceed 50 per centum of the median family income for the area, as determined by the Secretary with adjustments for smaller and larger families, except that the Secretary may establish income ceilings higher or lower than 50 per centum of the median for the area on the basis of the Secretary's findings that such variations are necessary because of unusually high or low family incomes.</p> <p>Submit two (2) copies of this report to your local HUD Office within ten (10) days after the end of the reporting period you checked in item 4 on the front.</p> <p>Complete item 7h, only once for each contractor/subcontractor on each semi-annual report.</p> <p>Enter the prime contractor's ID in item 7i, for all contracts and subcontracts. Include only contracts executed during this reporting period. PHAs/IHAs are to report all contracts/subcontracts.</p>
<p><b>Community Development Programs</b></p> <p>1. <b>Grantee:</b> Enter the name of the unit of government submitting this report.</p> <p>3. <b>Contact Person:</b> Enter name and phone of person responsible for maintaining and submitting contract/subcontract data.</p> <p>7a. <b>Grant Number:</b> Enter the HUD Community Development Block Grant Identification Number (with dashes). For example: B-32-MC-25-0034. For Entitlement Programs and Small City multi-year comprehensive programs, enter the latest approved grant number.</p> <p>7b. <b>Amount of Contract/Subcontract:</b> Enter the dollar amount rounded to the nearest dollar. If subcontractor ID number is provided in 7i, the dollar figure would be for the subcontract only and not for the prime contract.</p> <p>7c. <b>Type of Trade:</b> Enter the numeric codes which best indicates the contractor's/subcontractor's service. If subcontractor ID number is provided in 7i, the type of trade code would be for the subcontract only and not for the prime contractor. The "other" category includes supply, professional services and all other activities except construction and education/training activities.</p> <p>7d. <b>Business Racial/Ethnic/Gender Code:</b> Enter the numeric code which indicates the racial/ethnic/gender character of the owner(s) and controller(s) of 51% of the business. When 51% or more is not owned and controlled by any single racial/ethnic/gender category, enter the code which seems most appropriate. If the subcontractor ID number is provided, the code would apply to the subcontractor and not to the prime contractor.</p> <p>7e. <b>Woman Owned Business:</b> Enter Yes or No.</p> <p>7i. <b>Contractor Identification (ID) Number:</b> Enter the Employer (IRS) Number of the Prime Contractor as the unique identifier for prime recipient of HUD funds. Note that the Employer (IRS) Number must be provided for each contract/subcontract awarded.</p> <p>7g. <b>Section 3 Contractor:</b> Enter Yes or No.</p> <p>7h. <b>Subcontractor Identification (ID) Number:</b> Enter the Employer (IRS) Number of the subcontractor as the unique identifier for each subcontract awarded from HUD funds. When the subcontractor ID Number is provided, the respective Prime Contractor ID Number must also be provided.</p> <p>7i. <b>Section 3 Contractor:</b> Enter Yes or No.</p> <p>7j. <b>Contractor/Subcontractor Name and Address:</b> Enter this information for each Previous editions are obsolete.</p>	<p>completed for public and Indian housing and most community development programs. Form HUD-60002 is to be completed by all other HUD programs including State administered community development programs covered under Section 3.</p> <p>A Section 3 contractor/subcontractor is a business concern that provides economic opportunities to low- and very low-income residents of the metropolitan area (or nonmetropolitan county), including a business concern that is 51 percent or more owned by low- or very low-income residents; employs a substantial number of low- or very low-income residents; or provides subcontracting or business development opportunities to businesses owned by low- or very low-income residents. Low- and very low-income residents include participants in Youthbuild programs established under Subtitle D of Title IV of the Cranston-Gonzalez National Affordable Housing Act.</p> <p>The terms "low-income persons" and "very low-income persons" have the same meanings given the terms in section 3(b)(2) of the United States Housing Act of 1937. Low-income persons mean families (including single persons) whose incomes do not exceed 80 per centum of the median income for the area, as determined by the Secretary, with adjustments for smaller and larger families, except that the Secretary may establish income ceilings higher or lower than 50 per centum of the median for the area on the basis of the Secretary's findings that such variations are necessary because of unusually high or low family incomes.</p> <p>Submit two (2) copies of this report to your local HUD Office within ten (10) days after the end of the reporting period you checked in item 4 on the front.</p> <p>Complete item 7h, only once for each contractor/subcontractor on each semi-annual report.</p> <p>Enter the prime contractor's ID in item 7i, for all contracts and subcontracts. Include only contracts executed during this reporting period. PHAs/IHAs are to report all contracts/subcontracts.</p>
<p><b>Public Housing and Indian Housing Programs</b></p> <p>PHAs/IHAs are to report all contracts/subcontracts. Include only contracts executed during this reporting period.</p> <p>1. <b>Project Owner:</b> Enter the name of the unit of government, agency or mortgage entity submitting this report. Check box as appropriate.</p> <p>3. <b>Contact Person:</b> Same as item 3 under CPD Programs.</p> <p>4. <b>Reporting Period:</b> Check only one period.</p> <p>5. <b>Program Code:</b> Enter the appropriate program code.</p> <p>7a. <b>Grant/Project Number:</b> Enter the HUD Project Number or Housing Development Grant or number assigned.</p> <p>7b. <b>Amount of Contract/Subcontract:</b> Same as item 7b, under CPD Programs.</p> <p>7c. <b>Type of Trade:</b> Same as item 7c, under CPD Programs.</p> <p>7d. <b>Business Racial/Ethnic/Gender Code:</b> Same as item 7d, under CPD Programs.</p> <p>7e. <b>Woman Owned Business:</b> Enter Yes or No.</p> <p>7i. <b>Contractor Identification (ID) Number:</b> Same as item 7i, under CPD Programs.</p> <p>7g. <b>Section 3 Contractor:</b> Enter Yes or No.</p> <p>7h. <b>Subcontractor Identification (ID) Number:</b> Same as item 7h, under CPD Programs.</p> <p>7i. <b>Section 3 Contractor:</b> Enter Yes or No.</p> <p>7j. <b>Contractor/Subcontractor Name and Address:</b> Same as item 7j, under CPD Programs.</p>	<p><b>Multifamily Housing Programs</b></p> <p>1. <b>Grantee/Project Owner:</b> Enter the name of the unit of government, agency or mortgage entity submitting this report.</p> <p>3. <b>Contact Person:</b> Same as item 3 under CPD Programs.</p> <p>4. <b>Reporting Period:</b> Check only one period.</p> <p>5. <b>Program Code:</b> Enter the appropriate program code.</p> <p>7a. <b>Grant/Project Number:</b> Enter the HUD Project Number or Housing Development Grant or number assigned.</p> <p>7b. <b>Amount of Contract/Subcontract:</b> Same as item 7b, under CPD Programs.</p> <p>7c. <b>Type of Trade:</b> Same as item 7c, under CPD Programs.</p> <p>7d. <b>Business Racial/Ethnic/Gender Code:</b> Same as item 7d, under CPD Programs.</p> <p>7e. <b>Woman Owned Business:</b> Enter Yes or No.</p> <p>7i. <b>Contractor Identification (ID) Number:</b> Same as item 7i, under CPD Programs.</p> <p>7g. <b>Section 3 Contractor:</b> Enter Yes or No.</p> <p>7h. <b>Subcontractor Identification (ID) Number:</b> Same as item 7h, under CPD Programs.</p> <p>7i. <b>Section 3 Contractor:</b> Enter Yes or No.</p> <p>7j. <b>Contractor/Subcontractor Name and Address:</b> Same as item 7j, under CPD Programs.</p>

## SP2.03 CDBG Reporting

### This form is to be completed by Contractor

The project that you have been contracted to conduct the scope of work utilizes federal funding (HOME or CDBG). HUD requires reporting of this information on an annual basis.

***Submit this form with the contract for services. If subcontractors are used, submit completed form with invoice.***

Project Number (Contract No. or PO No.) \_\_\_\_\_ Project location: \_\_\_\_\_  
Date of Contract: \_\_\_\_\_ Amount of Contract or Subcontract: \$ \_\_\_\_\_

Prime Contractor Identification ID Number (EIN)	SubContractor Identification ID Number (if applicable)	Name	Address	City, State & Zip Code

Type of Trade Code (See below)  7c.	Contractor or Subcontractor Business Racial/Ethnic Code (See below) 7d	Women Owned Business (Yes or No)	Minority Owned Business (Yes or No)

#### 7c. type of Trade Codes:

1 = New Construction  
2 = Substantial Rehab.  
3 = Repair  
4 = Service  
5 = Project Mangt.

6 = Professional  
7 = Tenant Services  
8 = Education/Training  
9 = Arch./Engrg. Appraisal  
0 = Other

#### 7d: Racial/Ethnic Codes:

1 = White Americans  
2 = Black Americans  
3 = Native Americans  
4 = Hispanic Americans  
5 = Asian/Pacific Americans  
6 = Hasidic Jews

#### Information below to be completed by City Staff (Project Manager)

**Program:**

**Program funding:**

**CDBG and/or Davis Bacon projects: (Semi-Annual Labor Standards Enforcement Report) HUD Form: 4710 Reporting Period: Period 1: October 1, \_\_\_\_\_ to**

**March 31, \_\_\_\_\_**

**Period 2: April 1, \_\_\_\_\_ to September 30, \_\_\_\_\_ Wage Decision**

**No. \_\_\_\_\_**

**Mod: \_\_\_\_\_ Date: \_\_\_\_\_ Type:**

**Wage Decision Lock In Date: \_\_\_\_\_**

## **SP2.04 Compliance Guide to Section 3 of the Housing and Urban Development Act 1968**

Copies can be provided by the City of Corcoran through a USB Drive.

## **SP2.05 Davis Bacon Labor Standards U.S. HUD (A Contractor's Guide)**

Davis-Bacon Labor Standards, A Contractor's Guide to Prevailing Wage Requirements for Federally-Assisted Construction Projects can be provided by the City of Corcoran through a USB Drive.

## **SP2.06 CDBG Labor Compliance Manual**

Document can be provided by the City of Corcoran through a USB Drive.

## **SP2.07 Federal Davis Bacon Wage Determinations**

Document is hereby attached by reference. General prevailing wage determinations made by the director of industrial relations for journeyman and apprentices may be found at:

<http://www.dir.ca.gov/OPRL/PWD/index.htm> and

<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>

The City of Corcoran will do a ten-day pull for state & federal wage rate changes before signing contracts. The Davis Bacon Federal Labor Compliance and State of California Prevailing Wage will both apply and all parties will be required to pay the highest of the two wage determinations. Weekly reporting requirement will be required to be submitted to both DIR and the City on behalf of HUD.

## **SP2.08 State of California Prevailing Wage Determinations**

Document is hereby attached by reference. General prevailing wage determinations made by the director of industrial relations for journeyman and apprentices may be found at:

<http://www.dir.ca.gov/OPRL/PWD/index.htm> and

<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>

The City of Corcoran will do a ten-day pull for state & federal wage rate changes before signing contracts. The Davis Bacon Federal Labor Compliance and State of California Prevailing Wage will both apply and all parties will be required to pay the highest of the two wage determinations. Weekly reporting requirement will be required to be submitted to both DIR and the City on behalf of HUD.

## SP2.09 Community Development Block Grant (CDBG) Funding Requirements

The following regulations pertain to the use of CDBG funding and are hereby incorporated into the Contract as applicable:

- Community Development Block Grant Regulation:
- Title 24 – Code of Federal Regulation, Part 570
- Department of Labor Regulations:
- Title 29 – Parts 1, 3, 5, 6, & 7
- 24 CFR Parts 84 and 85;
- OMB Circular A-87 “Cost Principles for State and Local Governments,” or OMB Circular A-110, or OMB Circular A-122 “Cost Principles for Non-Profit Organization,” or OMB Circular A-21 “Cost Principles for Educational Institutions”;
- OMB Circular A-128, “Audits of State and Local Governments” or OMB Circular A-133 “Audits of Institutions of Higher Education and Other Non-Profit Institutions”; amended to 2 CFR 200
- The Davis Bacon Fair Labor Standards Act;
- The Contract Work Hours and Safety Standards Act of 1962;
- Copeland “Anti-Kickback” Act of 1934;
- Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (URA);
- Title VI of the Civil Rights Act of 1964; (Public Law 88-352 implemented in 24 CFR Part 1)
- Fair Housing Act, Title VIII of the Civil Rights Act of 1968 (Public Law 90-234 and Executive Order 11063 as amended by Executive Order 12259 (implemented in 24 CFR Part 107);
- Sections 104(b) and 109 of the Housing and Community Development Act of 1974;
- Section 3 of the Housing and Urban Development Act of 1968;
- Equal employment opportunity and minority business enterprise regulations established in 24 CFR part 570.904;
- Non-discrimination in employment, established by Executive Order 11246 (as amended by Executive Orders 11375 and 12086);
- Section 504 of the Rehabilitation Act of 1973 Uniform Federal Accessibility Standards;
- The Architectural Barriers Act of 1968;
- The Americans With Disabilities Act (ADA) of 1990;
- The Age Discrimination Act of 1975, as amended;
- National Environmental Policy of 1969 (42 USC 4321 et seq.), as amended;
- Lead Based paint regulations established in 24 CFR Parts 35, 570.608, and 24 CFR 982.401;
- Asbestos guidelines established in CPD Notice 90-44;
- HUD Environmental Criteria and Standards (24 CFR Part 51);
- The Energy Policy and Conservation Act (Public Law 94-163) and 24 CFR Part 39;
- Historic Preservation Act of 1966, as amended, and related laws and Executive Orders;
- Executive Order 11988, Floodplain Management, 1977 (42 FR 26951 et seq.); and
- Flood Disaster Protection Act of 1973.

## SP2.10 Informational Internet Websites

The City claims NO responsibility for the accuracy of the information contained in these websites. They are provided for convenience only:

### CDBG & REGULATIONS:

Community Development Block Grant General Provisions Regulations: (24 CFR 570) (Entitlement Community) may be found at:

<https://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&rgn=div5&view=text&node=24:3.1.1.3.4&idno=24>

Community Development Block Grant – Chapter 16: Labor Standards, may be found at:

<https://www.hudexchange.info/resources/documents/Basically-CDBG-Chapter-16-Labor.pdf>

### DAVIS BACON:

A Contractor's Guide to Davis-Bacon Wage Requirements & Certified Payroll Reports may be found at:

<https://www.hud.gov/sites/documents/4812-LRGUIDE.PDF>

The Davis-Bacon and Related Acts (DBRA) may be found at:

<https://www.dol.gov/whd/govcontracts/dbra.htm>

For Federal Davis-Bacon Wage determinations see:

<https://www.wdol.gov/dba.aspx>

### Government Contracts

<https://www.dol.gov/whd/programs/dbra/Survey/surveys.htm>

Wage & Hour Division: Resources for the employer may be found at:

<https://www.dol.gov/whd/foremployers.htm>

Wage & Hour Division, Davis Bacon and Related Acts:

<https://www.dol.gov/whd/govcontracts/dbra.htm>

DBRA Forms and Poster, may be found at:

<https://www.dol.gov/whd/programs/dbra/forms.htm>

HUD Payroll Reports and Certificates of Compliance Forms:

<https://www.dol.gov/whd/govcontracts/dbra.htm>

### SECTION 3:

We encourage bidders to sign up (ONLINE) in relation to Section 3. Contractors can register their business at:

<https://www.hud.gov/section3>

Section 3 Business Registry at:

<https://portalapps.hud.gov/Sec3BusReg/BRegistry/What>

<https://portalapps.hud.gov/Sec3BusReg/BRegistry/RegisterBusiness>

"General Decision Number: CA20200018 09/18/2020

Superseded General Decision Number: CA20190018

State: California

Construction Types: Building, Heavy (Heavy and Dredging) and Highway

Counties: Alameda, Calaveras, Contra Costa, Fresno, Kings, Madera, Mariposa, Merced, Monterey, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Stanislaus and Tuolumne Counties in California.

BUILDING CONSTRUCTION PROJECTS; DREDGING PROJECTS (does not include hopper dredge work); HEAVY CONSTRUCTION PROJECTS (does not include water well drilling); HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/03/2020
1	01/10/2020
2	01/24/2020
3	01/31/2020
4	02/07/2020
5	03/06/2020
6	03/13/2020
7	04/17/2020
8	06/05/2020
9	06/19/2020
10	06/26/2020
11	07/03/2020
12	07/10/2020
13	07/17/2020
14	07/24/2020
15	08/07/2020
16	08/14/2020
17	08/21/2020
18	09/04/2020
19	09/11/2020
20	09/18/2020

ASBE0016-004 01/01/2019

AREA 1: CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, MONTEREY, SAN BENITO, SAN JOAQUIN, SANTA CRUZ, STANISLAUS & TOULMNE COUNTIES

AREA 2: ALAMEDA, CONTRA COSTA, SAN FRANSICO, SAN MATEO & SANTA CLARA COUNTIES

Rates Fringes

Asbestos Removal  
worker/hazardous material  
handler (Includes  
preparation, wetting,  
stripping, removal,  
scrapping, vacuuming, bagging  
and disposing of all  
insulation materials from  
mechanical systems, whether  
they contain asbestos or not)

Area 1.....\$ 28.20 9.27

Area 2.....	\$ 36.53	9.27
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ASBE0016-008 01/01/2020		
AREA 1: ALAMEDA, CONTRA COSTA, MONTEREY, SAN BENITO, SAN FRANCISCO, SAN MATEO, SANTA CLARA, & SANTA CRUZ		
AREA 2: CALAVERAS, COLUSA, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAU, & TUOLUMNE		
	Rates	Fringes
Asbestos Workers/Insulator (Includes the application of all insulating materials, Protective Coverings, Coatings, and Finishes to all types of mechanical systems)		
Area 1.....	\$ 71.16	23.39
Area 2.....	\$ 54.26	23.39
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BOIL0549-001 10/01/2016		
AREA 1: ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO & SANTA CLARA COUNTIES		
AREA 2: REMAINING COUNTIES		
	Rates	Fringes
BOILERMAKER		
Area 1.....	\$ 43.28	37.91
Area 2.....	\$ 39.68	35.71
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BRCA0003-001 08/01/2019		
	Rates	Fringes
MARBLE FINISHER.....	\$ 35.41	16.45
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BRCA0003-003 08/01/2019		
	Rates	Fringes
MARBLE MASON.....	\$ 49.42	27.86
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BRCA0003-005 05/01/2019		
	Rates	Fringes
BRICKLAYER		
( 1) Fresno, Kings, Madera, Mariposa, Merced....	\$ 41.88	22.19
( 7) San Francisco, San Mateo.....	\$ 42.34	25.83
( 8) Alameda, Contra Costa, San Benito, Santa Clara.....	\$ 44.16	21.71
( 9) Calaveras, San Joaquin, Stanislaus, Tuolumne.....	\$ 39.66	20.76
(16) Monterey, Santa Cruz...	\$ 39.51	23.49
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BRCA0003-008 07/01/2019		
	Rates	Fringes
TERRAZZO FINISHER.....	\$ 37.58	17.33
TERRAZZO WORKER/SETTER.....	\$ 48.53	26.84
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BRCA0003-011 04/01/2019		
AREA 1: Alameda, Contra Costa, Monterey, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz		
AREA 2: Calaveras, San Joaquin, Stanislaus, Tuolumne		
AREA 3: Fresno, Kings, Madera, Mariposa, Merced		
	Rates	Fringes
TILE FINISHER		
Area 1.....	\$ 29.94	16.38
Area 2.....	\$ 25.60	14.30
Area 3.....	\$ 26.58	15.65
Tile Layer		
Area 1.....	\$ 49.90	19.16
Area 2.....	\$ 42.67	16.81
Area 3.....	\$ 40.27	18.58
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CARP0022-001 07/01/2020

San Francisco County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter.....	\$ 52.65	30.82
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 52.80	30.82
Journeyman Carpenter.....	\$ 52.65	30.82
Millwright.....	\$ 52.75	32.41

CARP0034-001 07/01/2020

	Rates	Fringes
Diver		
Assistant Tender, ROV Tender/Technician.....	\$ 51.90	34.02
Diver standby.....	\$ 58.09	34.02
Diver Tender.....	\$ 57.09	34.02
Diver wet.....	\$ 101.42	34.02
Manifold Operator (mixed gas).....	\$ 62.09	34.02
Manifold Operator (Standby).....	\$ 57.09	34.02

DEPTH PAY (Surface Diving):  
050 to 100 ft \$2.00 per foot  
101 to 150 ft \$3.00 per foot  
151 to 220 ft \$4.00 per foot  
221 ft.-deeper \$5.00 per foot

SATURATION DIVING:  
The standby rate shall apply until saturation starts. The saturation diving rate applies when divers are under pressure continuously until work task and decompression are complete. The diver rate shall be paid for all saturation hours.

DIVING IN ENCLOSURES:  
Where it is necessary for Divers to enter pipes or tunnels, or other enclosures where there is no vertical ascent, the following premium shall be paid: Distance traveled from entrance 26 feet to 300 feet: \$1.00 per foot. When it is necessary for a diver to enter any pipe, tunnel or other enclosure less than 48" in height, the premium will be \$1.00 per foot.

WORK IN COMBINATION OF CLASSIFICATIONS:  
Employees working in any combination of classifications within the diving crew (except dive supervisor) in a shift are paid in the classification with the highest rate for that shift.

CARP0034-003 07/01/2020

	Rates	Fringes
Piledriver.....	\$ 52.90	34.02

CARP0035-007 07/01/2019

AREA 1: Alameda, Contra Costa, San Francisco, San Mateo, Santa Clara counties

AREA 2: Monterey, San Benito, Santa Cruz Counties

AREA 3: Calaveras, Fresno, Kings, Madera, Mariposa, Merced, San Joaquin, Stanislaus, Tuolumne Counties

	Rates	Fringes
Modular Furniture Installer		
Area 1		
Installer I.....	\$ 27.46	22.14
Installer II.....	\$ 22.18	20.42
Lead Installer.....	\$ 30.91	22.64
Master Installer.....	\$ 35.13	22.64
Area 2		
Installer I.....	\$ 24.81	22.14
Installer II.....	\$ 20.01	20.42
Lead Installer.....	\$ 27.78	22.64
Master Installer.....	\$ 31.41	22.64
Area 3		
Installer I.....	\$ 23.86	22.14
Installer II.....	\$ 19.24	20.42

Lead Installer.....	\$ 26.66	22.64
Master Installer.....	\$ 30.08	22.64

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 CARP0035-008 08/01/2019

AREA 1: Alameda, Contra Costa, San Francisco, San Mateo, Santa Clara counties

AREA 2: Monterey, San Benito, Santa Cruz Counties

AREA 3: San Joaquin

AREA 4: Calaveras, Fresno, Kings, Madera, Mariposa, Merced, Stanislaus, Tuolumne Counties

	Rates	Fringes
Drywall Installers/Lathers:		
Area 1.....	\$ 50.50	30.64
Area 2.....	\$ 44.62	30.64
Area 3.....	\$ 41.02	29.15
Area 4.....	\$ 43.77	30.64
Drywall Stocker/Scrapper		
Area 1.....	\$ 25.25	17.86
Area 2.....	\$ 22.31	17.86
Area 3.....	\$ 20.51	16.88
Area 4.....	\$ 21.89	17.86

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 \* CARP0152-001 07/01/2020

Contra Costa County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway		
Carpenter.....	\$ 52.65	30.82
Hardwood Floorlayer,		
Shingler, Power Saw		
Operator, Steel Scaffold &		
Steel Shoring Erector, Saw		
Filer.....	\$ 52.80	30.82
Journeyman Carpenter.....	\$ 52.65	30.82
Millwright.....	\$ 52.75	32.41

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 \* CARP0152-002 07/01/2020

San Joaquin County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway		
Carpenter.....	\$ 52.65	30.82
Hardwood Floorlayer,		
Shingler, Power Saw		
Operator, Steel Scaffold &		
Steel Shoring Erector, Saw		
Filer.....	\$ 46.92	30.82
Journeyman Carpenter.....	\$ 46.77	30.82
Millwright.....	\$ 49.27	32.41

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 \* CARP0152-004 07/01/2020

Calaveras, Mariposa, Merced, Stanislaus and Tuolumne Counties

	Rates	Fringes
Carpenters		
Bridge Builder/Highway		
Carpenter.....	\$ 52.65	30.82
Hardwood Floorlayer,		
Shingler, Power Saw		
Operator, Steel Scaffold &		
Steel Shoring Erector, Saw		
Filer.....	\$ 45.57	30.82
Journeyman Carpenter.....	\$ 45.42	30.82
Millwright.....	\$ 47.92	32.41

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 \* CARP0217-001 07/01/2020

San Mateo County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway		
Carpenter.....	\$ 52.65	30.82
Hardwood Floorlayer,		
Shingler, Power Saw		
Operator, Steel Scaffold &		
Steel Shoring Erector, Saw		

Filer.....	\$ 52.80	30.82
Journeyman Carpenter.....	\$ 52.65	30.82
Millwright.....	\$ 52.75	32.41

\* CARP0405-001 07/01/2020

Santa Clara County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter.....	\$ 52.65	30.82
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw		
Filer.....	\$ 52.80	30.82
Journeyman Carpenter.....	\$ 52.65	30.82
Millwright.....	\$ 52.75	32.41

\* CARP0405-002 07/01/2020

San Benito County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter.....	\$ 52.65	30.82
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw		
Filer.....	\$ 46.83	30.82
Journeyman Carpenter.....	\$ 46.77	30.82
Millwright.....	\$ 49.27	32.41

\* CARP0505-001 07/01/2020

Santa Cruz County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter.....	\$ 52.65	30.82
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw		
Filer.....	\$ 46.92	30.82
Journeyman Carpenter.....	\$ 46.77	30.82
Millwright.....	\$ 49.27	32.41

\* CARP0605-001 07/01/2020

Monterey County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter.....	\$ 52.65	30.82
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw		
Filer.....	\$ 46.92	30.82
Journeyman Carpenter.....	\$ 46.77	30.82
Millwright.....	\$ 49.27	32.41

\* CARP0701-001 07/01/2020

Fresno and Madera Counties

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter.....	\$ 52.65	30.82
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw		
Filer.....	\$ 45.57	30.82
Journeyman Carpenter.....	\$ 45.42	30.82
Millwright.....	\$ 47.92	32.41

\* CARP0713-001 07/01/2020

Alameda County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter.....	\$ 52.65	30.82
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 52.80	30.82
Journeyman Carpenter.....	\$ 52.65	30.82
Millwright.....	\$ 52.75	32.41
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CARP1109-001 07/01/2020		

Kings County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter.....	\$ 52.65	30.82
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 45.57	30.82
Journeyman Carpenter.....	\$ 45.42	30.82
Millwright.....	\$ 47.92	32.41
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ELEC0006-004 12/01/2018		

SAN FRANCISCO COUNTY

	Rates	Fringes
Sound & Communications		
Installer.....	\$ 40.52	3%+19.05
Technician.....	\$ 46.60	3%+19.05

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

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ELEC0006-007 06/01/2020

SAN FRANCISCO COUNTY

	Rates	Fringes
ELECTRICIAN.....	\$ 78.00	3%+35.96
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ELEC0100-002 09/01/2020		

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 40.00	24.85
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ELEC0100-005 12/01/2019		

FRESNO, KINGS, MADERA

	Rates	Fringes
Communications System		
Installer.....	\$ 35.25	20.86
Technician.....	\$ 40.54	21.02

SCOPE OF WORK

Includes the installation testing, service and maintenance, of the following systems which utilize the transmission and/or transference of voice, sound, vision and digital for

commercial, education, security and entertainment purposes for the following: TV monitoring and surveillance, background-foreground music, intercom and telephone interconnect, inventory control systems, microwave transmission, multi-media, multiplex, nurse call system, radio page, school intercom and sound, burglar alarms, and low voltage master clock systems.

A. SOUND AND VOICE TRANSMISSION/TRANSFERENCE SYSTEMS  
Background foreground music, Intercom and telephone interconnect systems, Telephone systems Nurse call systems, Radio page systems, School intercom and sound systems, Burglar alarm systems, Low voltage, master clock systems, Multi-media/multiplex systems, Sound and musical entertainment systems, RF systems, Antennas and Wave Guide,

B. FIRE ALARM SYSTEMS Installation, wire pulling and testing

C. TELEVISION AND VIDEO SYSTEMS      Television monitoring and surveillance systems Video security systems, Video entertainment systems, Video educational systems, Microwave transmission systems, CATV and CCTV

D. SECURITY SYSTEMS Perimeter security systems Vibration sensor systems Card access systems Access control systems, Sonar/infrared monitoring equipment

E. COMMUNICATIONS SYSTEMS THAT TRANSMIT OR RECEIVE INFORMATION AND/OR CONTROL SYSTEMS THAT ARE INTRINSIC TO THE ABOVE LISTED SYSTEMS SCADA (Supervisory Control and Data Acquisition) PCM (Pulse Code Modulation) Inventory Control Systems, Digital Data Systems Broadband and Baseband and Carriers Point of Sale Systems, VSAT Data Systems Data Communication Systems RF and Remote Control Systems, Fiber Optic Data Systems

WORK EXCLUDED Raceway systems are not covered (excluding Ladder-Rack for the purpose of the above listed systems). Chases and/or nipples (not to exceed 10 feet) may be installed on open wiring systems. Energy management systems. SCADA (Supervisory Control and Data Acquisition) when not intrinsic to the above listed systems (in the scope). Fire alarm systems when installed in raceways (including wire and cable pulling) shall be performed at the electrician wage rate, when either of the following two (2) conditions apply:  
1. The project involves new or major remodel building trades construction.  
2. The conductors for the fire alarm system are installed in conduit.

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ELEC0234-001 12/23/2019

MONTEREY, SAN BENITO AND SANTA CRUZ COUNTIES

	Rates	Fringes
ELECTRICIAN		
Zone A.....	\$ 51.47	26.64
Zone B.....	\$ 56.62	26.80

Zone A: All of Santa Cruz, Monterey, and San Benito Counties within 25 air miles of Highway 1 and Dolan Road in Moss Landing, and an area extending 5 miles east and west of Highway 101 South to the San Luis Obispo County Line

Zone B: Any area outside of Zone A

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ELEC0234-003 12/01/2018

MONTEREY, SAN BENITO, AND SANTA CRUZ COUNTIES

	Rates	Fringes
Sound & Communications		
Installer.....	\$ 40.02	19.75
Technician.....	\$ 46.02	19.75

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access);

excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

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ELEC0302-001 02/25/2019

CONTRA COSTA COUNTY

	Rates	Fringes
CABLE SPLICER.....	\$ 60.48	26.06
ELECTRICIAN.....	\$ 53.76	25.86

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ELEC0302-003 12/01/2019

CONTRA COSTA COUNTY

	Rates	Fringes
Sound & Communications		
Installer.....	\$ 40.31	21.01
Technician.....	\$ 46.36	21.19

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

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ELEC0332-001 06/01/2020

SANTA CLARA COUNTY

	Rates	Fringes
CABLE SPLICER.....	\$ 82.25	40.66
ELECTRICIAN.....	\$ 71.52	40.34

FOOTNOTES: Work under compressed air or where gas masks are required, or work on ladders, scaffolds, stacks, "Bosun's chairs," or other structures and where the workers are not protected by permanent guard rails at a distance of 40 to 60 ft. from the ground or supporting structures: to be paid one and one-half times the straight-time rate of pay. Work on structures of 60 ft. or over (as described above): to be paid twice the straight-time rate of pay.

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ELEC0332-003 12/01/2019

SANTA CLARA COUNTY

	Rates	Fringes
Sound & Communications		
Installer.....	\$ 42.93	21.08
Technician.....	\$ 49.37	21.28

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75'

above the lowest floor level having building access);  
excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

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ELEC0595-001 06/01/2020

ALAMEDA COUNTY

	Rates	Fringes
CABLE SPLICER.....	\$ 69.00	3%+38.52
ELECTRICIAN.....	\$ 60.00	3%+38.52

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ELEC0595-002 06/01/2020

CALAVERAS AND SAN JOAQUIN COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 48.00	7.75%+25.33
ELECTRICIAN		
(1) Tunnel work.....	\$ 42.00	7.75%+25.33
(2) All other work.....	\$ 40.00	7.75%+25.33

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ELEC0595-006 12/01/2019

ALAMEDA COUNTY

	Rates	Fringes
Sound & Communications		
Installer.....	\$ 42.93	3%+20.22
Technician.....	\$ 53.66	3%+20.22

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

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ELEC0595-008 12/01/2019

CALAVERAS AND SAN JOAQUIN COUNTIES

	Rates	Fringes
Communications System		
Installer.....	\$ 35.25	3%+20.22
Technician.....	\$ 44.06	3%+20.22

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are

installed in the conduit, shall be performed by the inside electrician.

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ELEC0617-001 06/01/2020

SAN MATEO COUNTY

	Rates	Fringes
ELECTRICIAN.....	\$ 66.00	39.77

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ELEC0617-003 12/01/2019

SAN MATEO COUNTY

	Rates	Fringes
Sound & Communications		
Installer.....	\$ 42.93	21.09
Technician.....	\$ 49.37	21.28

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

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ELEC0684-001 06/01/2020

MARIPOSA, MERCED, STANISLAUS AND TUOLUMNE COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 41.00	3%+24.58

CABLE SPLICER = 110% of Journeyman Electrician

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ELEC0684-004 12/01/2019

MARIPOSA, MERCED, STANISLAUS AND TUOLUMNE COUNTIES

	Rates	Fringes
Communications System		
Installer.....	\$ 35.25	20.86
Technician.....	\$ 40.54	21.02

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

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ELEC1245-001 06/01/2020

	Rates	Fringes
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LINE CONSTRUCTION



(1) Lineman; Cable splicer..\$ 59.14	20.78
(2) Equipment specialist (operates crawler tractors, commercial motor vehicles, backhoes, trenchers, cranes (50 tons and below), overhead & underground distribution line equipment).....\$ 47.24	19.59
(3) Groundman.....\$ 36.12	19.19
(4) Powderman.....\$ 51.87	18.79

HOLIDAYS: New Year's Day, M.L. King Day, Memorial Day,  
Independence Day, Labor Day, Veterans Day, Thanksgiving Day  
and day after Thanksgiving, Christmas Day

ELEV0008-001 01/01/2020

	Rates	Fringes
ELEVATOR MECHANIC.....\$ 69.78		34.765+a+b

FOOTNOTE:  
a. PAID VACATION: Employer contributes 8% of regular hourly  
rate as vacation pay credit for employees with more than 5  
years of service, and 6% for 6 months to 5 years of service.  
b. PAID HOLIDAYS: New Years Day, Memorial Day, Independence  
Day, Labor Day, Veterans Day, Thanksgiving Day, Friday  
after Thanksgiving, and Christmas Day.

ENGI0003-001 06/24/2019

""AREA 1"" WAGE RATES ARE LISTED BELOW  
  
""AREA 2"" RECEIVES AN ADDITIONAL \$2.00 PER HOUR ABOVE AREA 1  
RATES.  
  
SEE AREA DEFINITIONS BELOW

	Rates	Fringes
OPERATOR: Power Equipment (AREA 1:)		
GROUP 1.....\$ 49.02		30.74
GROUP 2.....\$ 47.49		30.74
GROUP 3.....\$ 46.01		30.74
GROUP 4.....\$ 44.63		30.74
GROUP 5.....\$ 43.36		30.74
GROUP 6.....\$ 42.04		30.74
GROUP 7.....\$ 40.90		30.74
GROUP 8.....\$ 39.76		30.74
GROUP 8-A.....\$ 37.55		30.74
OPERATOR: Power Equipment (Cranes and Attachments - AREA 1:)		
GROUP 1		
Cranes.....\$ 50.65		30.74
Oiler.....\$ 36.63		30.39
Truck crane oiler.....\$ 43.55		30.74
GROUP 2		
Cranes.....\$ 48.14		30.74
Oiler.....\$ 36.36		30.39
Truck crane oiler.....\$ 43.33		30.74
GROUP 3		
Cranes.....\$ 46.40		30.74
Hydraulic.....\$ 38.32		30.39
Oiler.....\$ 36.14		30.39
Truck Crane Oiler.....\$ 43.06		30.74
GROUP 4		
Cranes.....\$ 43.36		30.74
OPERATOR: Power Equipment (Piledriving - AREA 1:)		
GROUP 1		
Lifting devices.....\$ 45.89		30.39
Oiler.....\$ 36.63		30.39
Truck crane oiler.....\$ 39.20		30.39
GROUP 2		
Lifting devices.....\$ 44.07		30.39
Oiler.....\$ 36.36		30.39
Truck Crane Oiler.....\$ 38.98		30.39
GROUP 3		
Lifting devices.....\$ 42.39		30.39
Oiler.....\$ 36.14		30.39
Truck Crane Oiler.....\$ 38.71		30.39
GROUP 4		
Lifting devices.....\$ 40.62		30.39
GROUP 5		
Lifting devices.....\$ 39.32		30.39
GROUP 6		
Lifting devices.....\$ 37.98		30.39

OPERATOR: Power Equipment  
(Steel Erection - AREA 1:)

GROUP 1		
Cranes.....	\$ 46.30	30.39
Oiler.....	\$ 36.63	30.39
Truck Crane Oiler.....	\$ 39.20	30.39
GROUP 2		
Cranes.....	\$ 43.79	30.39
Oiler.....	\$ 36.36	30.39
Truck Crane Oiler.....	\$ 38.98	30.39
GROUP 3		
Cranes.....	\$ 42.05	30.39
Hydraulic.....	\$ 38.32	30.39
Oiler.....	\$ 36.14	30.39
Truck Crane Oiler.....	\$ 38.71	30.39
GROUP 4		
Cranes.....	\$ 39.01	30.39
GROUP 5		
Cranes.....	\$ 35.13	30.39

OPERATOR: Power Equipment  
(Tunnel and Underground Work  
- AREA 1:)

SHAFTS, STOPES, RAISES:		
GROUP 1.....	\$ 40.77	30.39
GROUP 1-A.....	\$ 43.24	30.39
GROUP 2.....	\$ 39.51	30.39
GROUP 3.....	\$ 38.18	30.39
GROUP 4.....	\$ 37.04	30.39
GROUP 5.....	\$ 35.90	30.39
UNDERGROUND:		
GROUP 1.....	\$ 40.67	30.39
GROUP 1-A.....	\$ 43.14	30.39
GROUP 2.....	\$ 39.41	30.39
GROUP 3.....	\$ 38.08	30.39
GROUP 4.....	\$ 36.94	30.39
GROUP 5.....	\$ 35.80	30.39

FOOTNOTE: Work suspended by ropes or cables, or work on a  
Yo-Yo Cat: \$.60 per hour additional.

#### POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Operator of helicopter (when used in erection work);  
Hydraulic excavator, 7 cu. yds. and over; Power shovels,  
over 7 cu. yds.

GROUP 2: Highline cableway; Hydraulic excavator, 3-1/2 cu.  
yds. up to 7 cu. yds.; Licensed construction work boat  
operator, on site; Power blade operator (finish); Power  
shovels, over 1 cu. yd. up to and including 7 cu. yds.  
m.r.c.

GROUP 3: Asphalt milling machine; Cable backhoe; Combination  
backhoe and loader over 3/4 cu. yds.; Continuous flight tie  
back machine assistant to engineer or mechanic; Crane  
mounted continuous flight tie back machine, tonnage to  
apply; Crane mounted drill attachment, tonnage to apply;  
Dozer, slope brd; Gradall; Hydraulic excavator, up to 3 1/2  
cu. yds.; Loader 4 cu. yds. and over; Long reach excavator;  
Multiple engine scraper (when used as push pull); Power  
shovels, up to and including 1 cu. yd.; Pre-stress wire  
wrapping machine; Side boom cat, 572 or larger; Track  
loader 4 cu. yds. and over; Wheel excavator (up to and  
including 750 cu. yds. per hour)

GROUP 4: Asphalt plant engineer/box person; Chicago boom;  
Combination backhoe and loader up to and including 3/4 cu.  
yd.; Concrete batch plant (wet or dry); Dozer and/or push  
cat; Pull- type elevating loader; Gradesetter, grade  
checker (GPS, mechanical or otherwise); Grooving and  
grinding machine; Heading shield operator; Heavy-duty  
drilling equipment, Hughes, LDH, Watson 3000 or similar;  
Heavy-duty repairperson and/or welder; Lime spreader;  
Loader under 4 cu. yds.; Lubrication and service engineer  
(mobile and grease rack); Mechanical finishers or spreader  
machine (asphalt, Barber-Greene and similar); Miller  
Formless M-9000 slope paver or similar; Portable crushing  
and screening plants; Power blade support; Roller operator,  
asphalt; Rubber-tired scraper, self-loading (paddle-wheels,  
etc.); Rubber- tired earthmoving equipment (scrappers); Slip  
form paver (concrete); Small tractor with drag; Soil  
stabilizer (P & H or equal); Spider plow and spider puller;  
Tubex pile rig; Unlicensed construction work boat operator,  
on site; Timber skidder; Track loader up to 4 yds.;  
Tractor-drawn scraper; Tractor, compressor drill  
combination; Welder; Woods-Mixer (and other similar Pugmill  
equipment)

GROUP 5: Cast-in-place pipe laying machine; Combination  
slusher and motor operator; Concrete conveyor or concrete  
pump, truck or equipment mounted; Concrete conveyor,  
building site; Concrete pump or pumpcrete gun; Drilling

equipment, Watson 2000, Texoma 700 or similar; Drilling and boring machinery, horizontal (not to apply to waterliners, wagon drills or jackhammers); Concrete mixer/all; Person and/or material hoist; Mechanical finishers (concrete) (Clary, Johnson, Bidwell Bridge Deck or similar types); Mechanical burm, curb and/or curb and gutter machine, concrete or asphalt; Mine or shaft hoist; Portable crusher; Power jumbo operator (setting slip-forms, etc., in tunnels); Screed (automatic or manual); Self-propelled compactor with dozer; Tractor with boom D6 or smaller; Trenching machine, maximum digging capacity over 5 ft. depth; Vermeer T-600B rock cutter or similar

GROUP 6: Armor-Coater (or similar); Ballast jack tamper; Boom- type backfilling machine; Assistant plant engineer; Bridge and/or gantry crane; Chemical grouting machine, truck-mounted; Chip spreading machine operator; Concrete saw (self-propelled unit on streets, highways, airports and canals); Deck engineer; Drilling equipment Texoma 600, Hughes 200 Series or similar up to and including 30 ft. m.r.c.; Drill doctor; Helicopter radio operator; Hydro-hammer or similar; Line master; Skidsteer loader, Bobcat larger than 743 series or similar (with attachments); Locomotive; Lull hi-lift or similar; Oiler, truck mounted equipment; Pavement breaker, truck-mounted, with compressor combination; Paving fabric installation and/or laying machine; Pipe bending machine (pipelines only); Pipe wrapping machine (tractor propelled and supported); Screed (except asphaltic concrete paving); Self- propelled pipeline wrapping machine; Tractor; Self-loading chipper; Concrete barrier moving machine

GROUP 7: Ballast regulator; Boom truck or dual-purpose A-frame truck, non-rotating - under 15 tons; Cury lift or similar; Combination slurry mixer and/or cleaner; Drilling equipment, 20 ft. and under m.r.c.; Firetender (hot plant); Grouting machine operator; Highline cableway signalperson; Stationary belt loader (Kolman or similar); Lift slab machine (Vagtborg and similar types); Maginnes internal full slab vibrator; Material hoist (1 drum); Mechanical trench shield; Pavement breaker with or without compressor combination); Pipe cleaning machine (tractor propelled and supported); Post driver; Roller (except asphalt); Chip Seal; Self-propelled automatically applied concrete curing machine (on streets, highways, airports and canals); Self-propelled compactor (without dozer); Signalperson; Slip-form pumps (lifting device for concrete forms); Tie spacer; Tower mobile; Trenching machine, maximum digging capacity up to and including 5 ft. depth; Truck- type loader

GROUP 8: Bit sharpener; Boiler tender; Box operator; Brakeperson; Combination mixer and compressor (shotcrete/gunite); Compressor operator; Deckhand; Fire tender; Forklift (under 20 ft.); Generator; Gunite/shotcrete equipment operator; Hydraulic monitor; Ken seal machine (or similar); Mixermobile; Oiler; Pump operator; Refrigeration plant; Reservoir-debris tug (self-propelled floating); Ross Carrier (construction site); Rotomist operator; Self-propelled tape machine; Shuttlecar; Self-propelled power sweeper operator (includes vacuum sweeper); Slusher operator; Surface heater; Switchperson; Tar pot firetender; Tugger hoist, single drum; Vacuum cooling plant; Welding machine (powered other than by electricity)

GROUP 8-A: Elevator operator; Skidsteer loader-Bobcat 743 series or smaller, and similar (without attachments); Mini excavator under 25 H.P. (backhoe-trencher); Tub grinder wood chipper

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#### ALL CRANES AND ATTACHMENTS

GROUP 1: Clamshell and dragline over 7 cu. yds.; Crane, over 100 tons; Derrick, over 100 tons; Derrick barge pedestal-mounted, over 100 tons; Self-propelled boom-type lifting device, over 100 tons

GROUP 2: Clamshell and dragline over 1 cu. yd. up to and including 7 cu. yds.; Crane, over 45 tons up to and including 100 tons; Derrick barge, 100 tons and under; Self-propelled boom-type lifting device, over 45 tons; Tower crane

GROUP 3: Clamshell and dragline up to and including 1 cu. yd.; Cranes 45 tons and under; Self-propelled boom-type lifting device 45 tons and under;

GROUP 4: Boom Truck or dual purpose A-frame truck, non-rotating over 15 tons; Truck-mounted rotating telescopic boom type lifting device, Manitex or similar (boom truck) over 15 tons; Truck-mounted rotating

telescopic boom type lifting device, Manitex or similar  
(boom truck) - under 15 tons;

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PILEDRIVERS

GROUP 1: Derrick barge pedestal mounted over 100 tons;  
Clamshell over 7 cu. yds.; Self-propelled boom-type lifting  
device over 100 tons; Truck crane or crawler, land or barge  
mounted over 100 tons

GROUP 2: Derrick barge pedestal mounted 45 tons to and  
including 100 tons; Clamshell up to and including 7 cu.  
yds.; Self-propelled boom-type lifting device over 45 tons;  
Truck crane or crawler, land or barge mounted, over 45 tons  
up to and including 100 tons; Fundex F-12 hydraulic pile rig

GROUP 3: Derrick barge pedestal mounted under 45 tons; Self-  
propelled boom-type lifting device 45 tons and under;  
Skid/scow piledriver, any tonnage; Truck crane or crawler,  
land or barge mounted 45 tons and under

GROUP 4: Assistant operator in lieu of assistant to engineer;  
Forklift, 10 tons and over; Heavy-duty repairperson/welder

GROUP 5: Deck engineer

GROUP 6: Deckhand; Fire tender

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STEEL ERECTORS

GROUP 1: Crane over 100 tons; Derrick over 100 tons; Self-  
propelled boom-type lifting device over 100 tons

GROUP 2: Crane over 45 tons to 100 tons; Derrick under 100  
tons; Self-propelled boom-type lifting device over 45 tons  
to 100 tons; Tower crane

GROUP 3: Crane, 45 tons and under; Self-propelled boom-type  
lifting device, 45 tons and under

GROUP 4: Chicago boom; Forklift, 10 tons and over; Heavy-duty  
repair person/welder

GROUP 5: Boom cat

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TUNNEL AND UNDERGROUND WORK

GROUP 1-A: Tunnel bore machine operator, 20' diameter or more

GROUP 1: Heading shield operator; Heavy-duty repairperson;  
Mucking machine (rubber tired, rail or track type); Raised  
bore operator (tunnels); Tunnel mole bore operator

GROUP 2: Combination slusher and motor operator; Concrete  
pump or pumpcrete gun; Power jumbo operator

GROUP 3: Drill doctor; Mine or shaft hoist

GROUP 4: Combination slurry mixer cleaner; Grouting Machine  
operator; Motorman

GROUP 5: Bit Sharpener; Brakeman; Combination mixer and  
compressor (gunite); Compressor operator; Oiler; Pump  
operator; Slusher operator

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AREA DESCRIPTIONS:

POWER EQUIPMENT OPERATORS, CRANES AND ATTACHMENTS, TUNNEL AND  
UNDERGROUND [These areas do not apply to Piledrivers and  
Steel Erectors]

AREA 1: ALAMEDA, CALAVERAS, CONTRA COSTA, FRESNO, KINGS,  
MADERA, MARIPOSA, MERCED, MONTEREY, SAN BENITO, SAN  
FRANCISCO, SAN JOAQUIN, SAN MATEO, SANTA CLARA, SANTA CRUZ,  
STANISLAUS, TUOLUMNE

AREA 2 -NOTED BELOW

THE REMAINING COUNTIES ARE SPLIT BETWEEN AREA 1 AND AREA 2 AS  
NOTED BELOW:

CALAVERAS COUNTY:  
Area 1: Remainder  
Area 2: Eastern Part

FRESNO COUNTY:  
Area 1: Remainder  
Area 2: Eastern Part

MADERA COUNTY:  
Area 1: Remainder  
Area 2: Eastern Part

MARIPOSA COUNTY:  
Area 1: Remainder  
Area 2: Eastern Part

MONTEREY COUNTY:  
Area 1: Remainder  
Area 2: Southwestern part

TUOLUMNE COUNTY:  
Area 1: Remainder  
Area 2: Eastern Part

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ENG0003-008 07/01/2019

	Rates	Fringes
Dredging: (DREDGING: CLAMSHELL & DIPPER DREDGING; HYDRAULIC SUCTION DREDGING:)		
AREA 1:		
(1) Leverman.....	\$ 47.88	33.10
(2) Dredge Dozer; Heavy duty repairman.....	\$ 42.92	33.10
(3) Booster Pump Operator; Deck Engineer; Deck mate; Dredge Tender; Winch Operator.....	\$ 41.80	33.10
(4) Bargeman; Deckhand; Fireman; Leveehand; Oiler..	\$ 38.50	33.10
AREA 2:		
(1) Leverman.....	\$ 49.88	33.10
(2) Dredge Dozer; Heavy duty repairman.....	\$ 44.92	33.10
(3) Booster Pump Operator; Deck Engineer; Deck mate; Dredge Tender; Winch Operator.....	\$ 43.80	33.10
(4) Bargeman; Deckhand; Fireman; Leveehand; Oiler..	\$ 40.50	33.10

AREA DESCRIPTIONS

AREA 1: ALAMEDA,BUTTE, CONTRA COSTA, KINGS, MARIN, MERCED,  
NAPA, SACRAMENTO, SAN BENITO, SAN FRANCISCO, SAN JOAQUIN,  
SAN MATEO, SANTA CLARA, SANTA CRUZ, SOLANO, STANISLAUS,  
SUTTER, YOLO, AND YUBA COUNTIES

AREA 2: MODOC COUNTY

THE REMAINGING COUNTIES ARE SPLIT BETWEEN AREA 1 AND AREA 2  
AS NOTED BELOW:

ALPINE COUNTY:  
Area 1: Northernmost part  
Area 2: Remainder

CALAVERAS COUNTY:  
Area 1: Remainder  
Area 2: Eastern part

COLUSA COUNTY:  
Area 1: Eastern part  
Area 2: Remainder

ELDORADO COUNTY:  
Area 1: North Central part  
Area 2: Remainder

FRESNO COUNTY:  
Area 1: Remainder  
Area 2: Eastern part

GLENN COUNTY:  
Area 1: Eastern part  
Area 2: Remainder

LASSEN COUNTY:  
Area 1: Western part along the Southern portion of border  
with Shasta County  
Area 2: Remainder

MADERA COUNTY:

Area 1: Except Eastern part  
Area 2: Eastern part

MARIPOSA COUNTY  
Area 1: Except Eastern part  
Area 2: Eastern part

MONTERREY COUNTY  
Area 1: Except Southwestern part  
Area 2: Southwestern part

NEVADA COUNTY:  
Area 1: All but the Northern portion along the border of  
Sierra County  
Area 2: Remainder

PLACER COUNTY:  
Area 1: All but the Central portion  
Area 2: Remainder

PLUMAS COUNTY:  
Area 1: Western portion  
Area 2: Remainder

SHASTA COUNTY:  
Area 1: All but the Northeastern corner  
Area 2: Remainder

SIERRA COUNTY:  
Area 1: Western part  
Area 2: Remainder

SISKIYOU COUNTY:  
Area 1: Central part  
Area 2: Remainder

SONOMA COUNTY:  
Area 1: All but the Northwestern corner  
Area 2: Remainder

TEHAMA COUNTY:  
Area 1: All but the Western border with Mendocino & Trinity  
Counties  
Area 2: Remainder

TRINITY COUNTY:  
Area 1: East Central part and the Northeastern border with  
Shasta County  
Area 2: Remainder

TUOLUMNE COUNTY:  
Area 1: Except Eastern part  
Area 2: Eastern part

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ENGI0003-019 06/29/2020

SEE AREA DESCRIPTIONS BELOW

	Rates	Fringes
OPERATOR: Power Equipment		
(LANDSCAPE WORK ONLY)		
GROUP 1		
AREA 1.....	\$ 39.95	30.28
AREA 2.....	\$ 41.95	30.28
GROUP 2		
AREA 1.....	\$ 36.35	30.28
AREA 2.....	\$ 38.35	30.28
GROUP 3		
AREA 1.....	\$ 31.74	30.28
AREA 2.....	\$ 33.74	30.28

GROUP DESCRIPTIONS:

- GROUP 1: Landscape Finish Grade Operator: All finish grade work regardless of equipment used, and all equipment with a rating more than 65 HP.
- GROUP 2: Landscape Operator up to 65 HP: All equipment with a manufacturer's rating of 65 HP or less except equipment covered by Group 1 or Group 3. The following equipment shall be included except when used for finish work as long as manufacturer's rating is 65 HP or less: A-Frame and Winch Truck, Backhoe, Forklift, Hydragraphic Seeder Machine, Roller, Rubber-Tired and Track Earthmoving Equipment, Skiploader, Straw Blowers, and Trencher 31 HP up to 65 HP.
- GROUP 3: Landscap Utility Operator: Small Rubber-Tired Tractor, Trencher Under 31 HP.

AREA DESCRIPTIONS:

AREA 1: ALAMEDA, BUTTE, CONTRA COSTA, KINGS, MARIN, MERCED,  
NAPA, SACRAMENTO, SAN BENITO, SAN FRANCISCO, SAN JOAQUIN,  
SAN MATEO, SANTA CLARA, SANTA CRUZ, SOLANO, STANISLAUS,  
SUTTER, YOLO, AND YUBA COUNTIES

AREA 2 - MODOC COUNTY

THE REMAINING COUNTIES ARE SPLIT BETWEEN AREA 1 AND AREA 2 AS  
NOTED BELOW:

ALPINE COUNTY:

Area 1: Northernmost part  
Area 2: Remainder

CALAVERAS COUNTY:

Area 1: Except Eastern part  
Area 2: Eastern part

COLUSA COUNTY:

Area 1: Eastern part  
Area 2: Remainder

DEL NORTE COUNTY:

Area 1: Extreme Southwestern corner  
Area 2: Remainder

ELDORADO COUNTY:

Area 1: North Central part  
Area 2: Remainder

FRESNO COUNTY

Area 1: Except Eastern part  
Area 2: Eastern part

GLENN COUNTY:

Area 1: Eastern part  
Area 2: Remainder

HUMBOLDT COUNTY:

Area 1: Except Eastern and Southwestern parts  
Area 2: Remainder

LAKE COUNTY:

Area 1: Southern part  
Area 2: Remainder

LASSEN COUNTY:

Area 1: Western part along the Southern portion of border  
with Shasta County  
Area 2: Remainder

MADERA COUNTY

Area 1: Remainder  
Area 2: Eastern part

MARIPOSA COUNTY

Area 1: Remainder  
Area 2: Eastern part

MENDOCINO COUNTY:

Area 1: Central and Southeastern parts  
Area 2: Remainder

MONTEREY COUNTY

Area 1: Remainder  
Area 2: Southwestern part

NEVADA COUNTY:

Area 1: All but the Northern portion along the border of  
Sierra County  
Area 2: Remainder

PLACER COUNTY:

Area 1: All but the Central portion  
Area 2: Remainder

PLUMAS COUNTY:

Area 1: Western portion  
Area 2: Remainder

SHASTA COUNTY:

Area 1: All but the Northeastern corner  
Area 2: Remainder

SIERRA COUNTY:

Area 1: Western part  
Area 2: Remainder

SISKIYOU COUNTY:

Area 1: Central part  
Area 2: Remainder

SONOMA COUNTY:

Area 1: All but the Northwestern corner

Area 2: Reaminder

TEHAMA COUNTY:

Area 1: All but the Western border with mendocino & Trinity Counties

Area 2: Remainder

TRINITY COUNTY:

Area 1: East Central part and the Northeaster border with Shasta County

Area 2: Remainder

TULARE COUNTY;

Area 1: Remainder

Area 2: Eastern part

TUOLUMNE COUNTY:

Area 1: Remainder

Area 2: Eastern Part

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IRON0377-001 07/01/2020

ALAMEDA, CONTRA COSTA, SAN MATEO, SANTA CLARA & SAN FRANCISCO COUNTIES

	Rates	Fringes
Ironworkers:		
Fence Erector.....	\$ 34.58	24.81
Ornamental, Reinforcing and Structural.....	\$ 42.50	33.45

PREMIUM PAY:

\$6.00 additional per hour at the following locations:

China Lake Naval Test Station, Chocolate Mountains Naval Reserve-Niland, Edwards AFB, Fort Irwin Military Station, Fort Irwin Training Center-Goldstone, San Clemente Island, San Nicholas Island, Susanville Federal Prison, 29 Palms - Marine Corps, U.S. Marine Base - Barstow, U.S. Naval Air Facility - Sealey, Vandenberg AFB

\$4.00 additional per hour at the following locations:

Army Defense Language Institute - Monterey, Fallon Air Base, Naval Post Graduate School - Monterey, Yermo Marine Corps Logistics Center

\$2.00 additional per hour at the following locations:

Port Hueneme, Port Mugu, U.S. Coast Guard Station - Two Rock

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IRON0433-005 07/01/2020

REMAINING COUNTIES

	Rates	Fringes
IRONWORKER		
Fence Erector.....	\$ 34.58	24.81
Ornamental, Reinforcing and Structural.....	\$ 41.00	33.45

PREMIUM PAY:

\$6.00 additional per hour at the following locations:

China Lake Naval Test Station, Chocolate Mountains Naval Reserve-Niland, Edwards AFB, Fort Irwin Military Station, Fort Irwin Training Center-Goldstone, San Clemente Island, San Nicholas Island, Susanville Federal Prison, 29 Palms - Marine Corps, U.S. Marine Base - Barstow, U.S. Naval Air Facility - Sealey, Vandenberg AFB

\$4.00 additional per hour at the following locations:

Army Defense Language Institute - Monterey, Fallon Air Base, Naval Post Graduate School - Monterey, Yermo Marine Corps Logistics Center

\$2.00 additional per hour at the following locations:

Port Hueneme, Port Mugu, U.S. Coast Guard Station - Two Rock

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LAB00067-002 06/29/2020

AREA ""A"" - ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO AND  
SANTA CLARA COUNTIES

AREA ""B"" - CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA,  
MERCED, MONTEREY, SAN BENITO, SAN JOAQUIN, STANISLAUS, AND  
TUOLUMNE COUNTIES

	Rates	Fringes
Asbestos Removal Laborer		
All Counties.....	\$ 25.05	12.00
LABORER (Lead Removal)		
Area A.....	\$ 33.07	25.30
Area B.....	\$ 32.07	25.30

ASBESTOS REMOVAL-SCOPE OF WORK: Site mobilization; initial site clean-up; site preparation; removal of asbestos-containing materials from walls and ceilings; or from pipes, boilers and mechanical systems only if they are being scrapped; encapsulation, enclosure and disposal of asbestos-containing materials by hand or with equipment or machinery; scaffolding; fabrication of temporary wooden barriers; and assembly of decontamination stations.

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LAB00073-002 06/25/2018

CALAVERAS AND SAN JOAQUIN COUNTIES

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person..	\$ 29.54	23.65
Traffic Control Person I....	\$ 29.84	23.65
Traffic Control Person II....	\$ 27.34	23.65

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

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LAB00073-003 07/01/2020

SAN JOAQUIN COUNTY

	Rates	Fringes
LABORER		
Mason Tender-Brick.....	\$ 32.84	23.71

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LAB00073-005 06/25/2018

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1.....	\$ 37.82	24.11
GROUP 2.....	\$ 37.59	24.11
GROUP 3.....	\$ 37.34	24.11
GROUP 4.....	\$ 36.89	24.11
GROUP 5.....	\$ 36.35	24.11
Shotcrete Specialist.....	\$ 38.34	24.11

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Guniting and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Guniting & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

LAB00073-007 06/25/2018

CALAVERAS AND SAN JOAQUIN COUNTIES

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT LABORERS)		
Construction Specialist		
Group.....	\$ 30.49	23.20
GROUP 1.....	\$ 29.79	23.20
GROUP 1-a.....	\$ 30.01	23.20
GROUP 1-c.....	\$ 29.84	23.20
GROUP 1-e.....	\$ 30.34	23.20
GROUP 1-f.....	\$ 30.37	23.20
GROUP 2.....	\$ 29.64	23.20
GROUP 3.....	\$ 29.54	23.20
GROUP 4.....	\$ 23.23	23.20
See groups 1-b and 1-d under laborer classifications.		
LABORER (GARDENERS, HORTICULTURAL & LANDSCAPE LABORERS)		
(1) New Construction.....	\$ 29.54	23.20
(2) Establishment Warranty		
Period.....	\$ 23.23	23.20
LABORER (GUNITE)		
GROUP 1.....	\$ 29.75	22.31
GROUP 2.....	\$ 29.25	22.31
GROUP 3.....	\$ 28.66	22.31
GROUP 4.....	\$ 28.54	22.31
LABORER (WRECKING)		
GROUP 1.....	\$ 29.79	23.20
GROUP 2.....	\$ 29.64	23.20

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and buckler; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreeed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller;

Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. "Sewer cleaner" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$ .25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shotcrete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification "material cleaner" is to be utilized under the following conditions:

- A: at demolition site for the salvage of the material.
- B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
- C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of "form stripping, cleaning and oiling and moving to the next point of erection".

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#### GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Guniting laborer

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#### WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

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LAB00073-009 07/01/2018

CALAVERAS AND SAN JOAQUIN COUNTIES

	Rates	Fringes
LABORER (Plaster Tender).....	\$ 32.02	23.00

Work on a swing stage scaffold: \$1.00 per hour additional.

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LAB00261-003 06/25/2018

SAN FRANCISCO AND SAN MATEO COUNTIES

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person..	\$ 20.54	23.65
Traffic Control Person I....	\$ 30.84	23.65
Traffic Control Person II...	\$ 28.34	23.65

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

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LAB00261-005 06/25/2018

SAN FRANCISCO AND SAN MATEO COUNTIES

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1.....	\$ 37.82	24.11
GROUP 2.....	\$ 37.59	24.11
GROUP 3.....	\$ 37.34	24.11
GROUP 4.....	\$ 36.89	24.11
GROUP 5.....	\$ 36.35	24.11
Shotcrete Specialist.....	\$ 38.34	24.11

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Guniting and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Guniting & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

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LAB00261-009 06/25/2018

SAN FRANCISCO, AND SAN MATEO COUNTIES

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT LABORERS - AREA A:)		
Construction Specialist		
Group.....	\$ 31.49	23.20
GROUP 1.....	\$ 30.79	23.20
GROUP 1-a.....	\$ 31.01	23.20
GROUP 1-c.....	\$ 30.84	23.20
GROUP 1-e.....	\$ 31.34	23.20

GROUP 1-f.....	\$ 31.37	23.20
GROUP 2.....	\$ 30.64	23.20
GROUP 3.....	\$ 30.54	23.20
GROUP 4.....	\$ 24.23	23.20

See groups 1-b and 1-d under laborer classifications.

LABORER (GARDENERS,  
HORTICULTURAL & LANDSCAPE  
LABORERS - AREA A:)

(1) New Construction.....	\$ 30.54	23.20
(2) Establishment Warranty Period.....	\$ 24.23	23.20

LABORER (WRECKING - AREA A:)

GROUP 1.....	\$ 30.79	23.20
GROUP 2.....	\$ 30.64	23.20

Laborers: (GUNITE - AREA A:)

GROUP 1.....	\$ 30.75	22.31
GROUP 2.....	\$ 30.25	22.31
GROUP 3.....	\$ 29.66	22.31
GROUP 4.....	\$ 29.54	22.31

#### FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

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#### LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and bucket; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. ""Sewer cleaner"" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shal receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers'

work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$ .25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shot crete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification "material cleaner" is to be utilized under the following conditions:

- A: at demolition site for the salvage of the material.
- B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
- C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of "form stripping, cleaning and oiling and moving to the next point of erection".

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzlemán

GROUP 2: Nozzlemán, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Gunite laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LAB00261-011 05/01/2018

SAN FRANCISCO AND SAN MATEO COUNTIES:

	Rates	Fringes
MASON TENDER, BRICK.....	\$ 35.37	20.70

FOOTNOTES: Underground work such as sewers, manholes, catch

basins, sewer pipes, telephone conduits, tunnels and cut  
trenches: \$5.00 per day additional. Work in live sewage:  
\$2.50 per day additional.

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LAB00261-014 07/01/2017

SAN FRANCISCO AND SAN MATEO COUNTIES:

	Rates	Fringes
PLASTER TENDER.....	\$ 34.70	23.11

Work on a swing stage scaffold: \$1.00 per hour additional.

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LAB00270-003 06/25/2018

AREA A: SANTA CLARA

AREA B: MONTEREY, SAN BENITO AND SANTA CRUZ COUNTIES

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person		
Area A.....	\$ 30.54	23.65
Area B.....	\$ 29.54	23.65
Traffic Control Person I		
Area A.....	\$ 30.84	23.65
Area B.....	\$ 29.84	23.65
Traffic Control Person II		
Area A.....	\$ 28.34	23.65
Area B.....	\$ 27.34	23.65

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

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LAB00270-004 06/25/2018

MONTEREY, SAN BENITO, SANTA CLARA, AND SANTA CRUZ COUNTIES

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1.....	\$ 37.82	24.11
GROUP 2.....	\$ 37.59	24.11
GROUP 3.....	\$ 37.34	24.11
GROUP 4.....	\$ 36.89	24.11
GROUP 5.....	\$ 36.35	24.11
Shotcrete Specialist.....	\$ 38.34	24.11

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Gunite and shotcrete nozzlelemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Gunite & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

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LAB00270-005 07/01/2020

MONTEREY AND SAN BENITO COUNTIES

	Rates	Fringes
LABORER		
Mason Tender-Brick.....	\$ 32.84	23.71

MONTEREY, SAN BENITO, AND SANTA CRUZ, COUNTIES

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT		
LABORERS - AREA B)		
Construction Specialist		
Group.....	\$ 30.40	23.20
GROUP 1.....	\$ 29.79	23.20
GROUP 1-a.....	\$ 30.01	23.20
GROUP 1-c.....	\$ 29.84	23.20
GROUP 1-e.....	\$ 30.34	23.20
GROUP 1-f.....	\$ 30.37	23.20
GROUP 2.....	\$ 29.64	23.20
GROUP 3.....	\$ 29.54	23.20
GROUP 4.....	\$ 23.23	23.20
See groups 1-b and 1-d under laborer classifications.		
LABORER (GARDENERS,		
HORTICULTURAL & LANDSCAPE		
LABORERS - AREA B)		
(1) New Construction.....	\$ 29.54	23.20
(2) Establishment Warranty		
Period.....	\$ 23.23	23.20
LABORER (GUNITE - AREA B)		
GROUP 1.....	\$ 29.75	22.31
GROUP 2.....	\$ 29.25	22.31
GROUP 3.....	\$ 28.66	22.31
GROUP 4.....	\$ 28.54	22.31
LABORER (WRECKING - AREA B)		
GROUP 1.....	\$ 29.79	23.20
GROUP 2.....	\$ 29.64	23.20

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and bucket; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types



regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. "Sewer cleaner" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$.25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shotcrete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification "material cleaner" is to be utilized under the following conditions:

- A: at demolition site for the salvage of the material.
- B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
- C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of "form stripping, cleaning and oiling and moving to the next point of erection".

#### GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzlemaster

GROUP 2: Nozzlemaster, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Guniting laborer

#### WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash,

windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LAB00270-010 06/25/2018

SANTA CLARA COUNTY

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT		
LABORERS - AREA A:)		
Construction Specialist		
Group.....	\$ 31.49	23.20
GROUP 1.....	\$ 30.79	23.20
GROUP 1-a.....	\$ 31.01	23.20
GROUP 1-c.....	\$ 30.84	23.20
GROUP 1-e.....	\$ 31.34	23.20
GROUP 1-f.....	\$ 30.37	23.20
GROUP 2.....	\$ 30.64	23.20
GROUP 3.....	\$ 30.54	23.20
GROUP 4.....	\$ 24.23	23.20
See groups 1-b and 1-d under laborer classifications.		
LABORER (GARDENERS,		
HORTICULTURAL & LANDSCAPE		
LABORERS - AREA A:)		
(1) New Construction.....	\$ 30.54	23.20
(2) Establishment Warranty		
Period.....	\$ 24.23	23.20
LABORER (GUNITE - AREA A:)		
GROUP 1.....	\$ 30.75	22.31
GROUP 2.....	\$ 30.25	22.31
GROUP 3.....	\$ 29.66	22.31
GROUP 4.....	\$ 29.54	22.31
LABORER (WRECKING - AREA A:)		
GROUP 1.....	\$ 30.79	23.20
GROUP 2.....	\$ 30.64	23.20

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and buckler; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreeed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. "Sewer cleaner" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$ .25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shotcrete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification "material cleaner" is to be utilized under the following conditions:

- A: at demolition site for the salvage of the material.
- B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
- C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of "form stripping, cleaning and oiling and moving to the next point of erection".

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#### GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Guniting laborer

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WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

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LAB00270-011 07/01/2017

MONTEREY, SAN BENITO, SANTA CRUZ, SANTA CLARA COUNTIES

	Rates	Fringes
LABORER (Plaster Tender).....	\$ 34.70	21.22

Work on a swing stage scaffold: \$1.00 per hour additional.

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LAB00294-001 07/01/2020

FRESNO, KINGS AND MADERA COUNTIES

	Rates	Fringes
LABORER (Brick)		
Mason Tender-Brick.....	\$ 32.84	23.71

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LAB00294-002 06/25/2018

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person..	\$ 29.54	23.65
Traffic Control Person I...	\$ 29.84	23.65
Traffic Control Person II...	\$ 27.34	23.65

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

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LAB00294-005 06/25/2018

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1.....	\$ 37.82	24.11
GROUP 2.....	\$ 37.59	24.11
GROUP 3.....	\$ 37.34	24.11
GROUP 4.....	\$ 36.89	24.11
GROUP 5.....	\$ 36.35	24.11
Shotcrete Specialist.....	\$ 38.34	24.11

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Guniting and shotcrete nozzle men

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Guniting & shotcrete gunman & potman; Headermen; High pressure nozzle man; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

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LAB00294-008 06/25/2018

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT		
LABORERS - AREA B:)		
Construction Specialist		
Group.....	\$ 30.49	23.20
GROUP 1.....	\$ 29.79	23.20
GROUP 1-a.....	\$ 30.01	23.20
GROUP 1-c.....	\$ 29.84	23.20
GROUP 1-e.....	\$ 30.34	23.20
GROUP 1-f.....	\$ 30.37	23.20
GROUP 2.....	\$ 29.64	23.20
GROUP 3.....	\$ 29.54	23.20
GROUP 4.....	\$ 23.23	23.20
See groups 1-b and 1-d under laborer classifications.		
LABORER (GARDENERS,		
HORTICULTURAL & LANDSCAPE		
LABORERS - AREA B:)		
(1) New Construction.....	\$ 29.54	23.20
(2) Establishment Warranty		
Period.....	\$ 23.23	23.20
LABORER (GUNITE - AREA B:)		
GROUP 1.....	\$ 29.75	22.31
GROUP 2.....	\$ 29.25	22.31
GROUP 3.....	\$ 28.66	22.31
GROUP 4.....	\$ 28.54	22.31
LABORER (WRECKING - AREA B:)		
GROUP 1.....	\$ 29.79	23.20
GROUP 2.....	\$ 29.64	23.20

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and bucket; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for

such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. ""Sewer cleaner"" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$.25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shotcrete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification ""material cleaner"" is to be utilized under the following conditions:

- A: at demolition site for the salvage of the material.
- B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
- C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of ""form stripping, cleaning and oiling and moving to the next point of erection"".

#### GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzlemaster

GROUP 2: Nozzlemaster, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Guniting laborer

#### WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building

materials)

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LAB00294-010 07/01/2018

CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, SAN  
JOAQUIN, STANISLAUS & TUOLUMNE

	Rates	Fringes
Plasterer tender.....	\$ 32.02	23.00

Work on a swing stage scaffold: \$1.00 per hour additional.

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LAB00294-011 07/01/2017

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
LABORER (Plaster Tender).....	\$ 31.02	22.52

Work on a swing stage scaffold: \$1.00 per hour additional.

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LAB00304-002 06/25/2018

ALAMEDA COUNTY

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person..	\$ 30.54	23.65
Traffic Control Person I....	\$ 30.84	23.65
Traffic Control Person II...	\$ 28.34	23.65

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash  
cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of  
temporary/permanent signs, markers, delineators and crash  
cushions.

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LAB00304-003 06/26/2017

ALAMEDA COUNTY

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1.....	\$ 36.60	24.83
GROUP 2.....	\$ 36.37	24.83
GROUP 3.....	\$ 36.12	24.83
GROUP 4.....	\$ 35.67	24.83
GROUP 5.....	\$ 35.13	24.83
Shotcrete Specialist.....	\$ 37.12	24.83

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Gunite and shotcrete  
nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or  
excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading;  
Cherry pickermen - where car is lifted; Concrete finisher  
in tunnel; Concrete screedman; Grout pumpman and potman;  
Gunite & shotcrete gunman & potman; Headermen; High  
pressure nozzleman; Miner - tunnel, including top and  
bottom man on shaft and raise work; Nipper; Nozzleman on  
slick line; Sandblaster - potman, Robotic Shotcrete Placer,  
Segment Erector, Tunnel Muck Hauler, Steel Form raiser and  
setter; Timberman, retimberman (wood or steel or substitute  
materials therefore); Tugger (for tunnel laborer work);  
Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang -  
muckers, trackmen; Concrete crew - includes rodding and  
spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

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LAB00304-004 06/25/2018

ALAMEDA COUNTY

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT		

LABORERS - AREA A:)

Construction Specialist		
Group.....	\$ 31.49	23.20
GROUP 1.....	\$ 30.79	23.20
GROUP 1-a.....	\$ 31.01	23.20
GROUP 1-c.....	\$ 30.84	23.20
GROUP 1-e.....	\$ 31.34	23.20
GROUP 1-f.....	\$ 30.37	23.20
GROUP 2.....	\$ 30.64	23.20
GROUP 3.....	\$ 30.54	23.20
GROUP 4.....	\$ 24.23	23.20

See groups 1-b and 1-d under laborer classifications.

LABORER (GARDENERS,  
HORTICULTURAL & LANDSCAPE

LABORERS - AREA A:)

(1) New Construction.....	\$ 30.54	23.20
(2) Establishment Warranty Period.....	\$ 24.23	23.20

LABORER (GUNITE - AREA A:)

GROUP 1.....	\$ 30.75	22.31
GROUP 2.....	\$ 30.25	22.31
GROUP 3.....	\$ 29.66	22.31
GROUP 4.....	\$ 29.54	22.31

LABORER (WRECKING - AREA A:)

GROUP 1.....	\$ 30.79	23.20
GROUP 2.....	\$ 30.64	23.20

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

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LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and buckler; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. ""Sewer cleaner"" means any worker who



handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$ .25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shotcrete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification "material cleaner" is to be utilized under the following conditions:

- A: at demolition site for the salvage of the material.
- B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
- C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of "form stripping, cleaning and oiling and moving to the next point of erection".

#### GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Guniting laborer

#### WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

## ALAMEDA COUNTY

	Rates	Fringes
Brick Tender.....	\$ 35.37	20.70

FOOTNOTES: Work on jobs where heat-protective clothing is required: \$2.00 per hour additional. Work at grinders: \$.25 per hour additional. Manhole work: \$2.00 per day additional.

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LAB00304-008 07/01/2017

## ALAMEDA AND CONTRA COSTA COUNTIES:

	Rates	Fringes
Plasterer tender.....	\$ 34.70	23.11

Work on a swing stage scaffold: \$1.00 per hour additional.

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LAB00324-002 06/25/2018

## CONTRA COSTA COUNTY

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person..	\$ 30.54	23.65
Traffic Control Person I....	\$ 30.84	23.65
Traffic Control Person II...	\$ 28.34	23.65

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

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LAB00324-006 06/25/2018

## CONTRA COSTA COUNTY

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1.....	\$ 37.82	24.11
GROUP 2.....	\$ 37.59	24.11
GROUP 3.....	\$ 37.34	24.11
GROUP 4.....	\$ 36.89	24.11
GROUP 5.....	\$ 36.35	24.11
Shotcrete Specialist.....	\$ 38.34	24.11

## TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Guniting and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Guniting & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

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LAB00324-012 06/25/2018

## CONTRA COSTA COUNTY

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT LABORERS - AREA A:)		
Construction Specialist		
Group.....	\$ 31.49	23.20
GROUP 1.....	\$ 30.79	23.20

GROUP 1-a.....	\$ 31.01	23.20
GROUP 1-c.....	\$ 30.84	23.20
GROUP 1-e.....	\$ 31.34	23.20
GROUP 1-f.....	\$ 30.37	23.20
GROUP 1-g.....	\$ 30.99	23.20
GROUP 2.....	\$ 30.64	23.20
GROUP 3.....	\$ 30.54	23.20
GROUP 4.....	\$ 24.23	23.20

See groups 1-b and 1-d under laborer classifications.

LABORER (GARDENERS,  
HORTICULTURAL & LANDSCAPE

LABORERS - AREA A:)

(1) New Construction.....	\$ 30.54	23.20
(2) Establishment Warranty Period.....	\$ 24.23	23.20

LABORER (GUNITE - AREA A:)

GROUP 1.....	\$ 30.75	22.31
GROUP 2.....	\$ 30.25	22.31
GROUP 3.....	\$ 29.66	22.31
GROUP 4.....	\$ 29.54	22.31

LABORER (WRECKING - AREA A:)

GROUP 1.....	\$ 30.79	23.20
GROUP 2.....	\$ 30.64	23.20

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

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LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and buckler; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. "Sewer cleaner" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer

manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$ .25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shotcrete

GROUP 1-g, CONTRA COSTA COUNTY: Pipelayer (including grade checking in connection with pipelaying); Caulker; Bander; Pipewrapper; Conduit layer; Plastic pipe layer; Pressure pipe tester; No joint pipe and stripping of same, including repair of voids; Precast manhole setters, cast in place manhole form setters

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification "material cleaner" is to be utilized under the following conditions:

- A: at demolition site for the salvage of the material.
- B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
- C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of "form stripping, cleaning and oiling and moving to the next point of erection".

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#### GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Gunitelaborer

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#### WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

GROUP 1-g, CONTRA COSTA COUNTY: Pipelayer (including grade checking in connection with pipelaying); Caulker; Bander; Pipewrapper; Conduit layer; Plastic pipe layer; Pressure pipe tester; No joint pipe and stripping of same, including repair of voids; Precast manhole setters, cast in place manhole form setters

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LAB00324-014 05/01/2018

CONTRA COSTA COUNTY:

	Rates	Fringes
Brick Tender.....	\$ 35.37	20.70

FOOTNOTES: Work on jobs where heat-protective clothing is required: \$2.00 per hour additional. Work at grinders: \$.25 per hour additional. Manhole work: \$2.00 per day additional.

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LAB00324-018 07/01/2018

ALAMEDA AND CONTRA COSTA COUNTIES:

	Rates	Fringes
Plasterer tender.....	\$ 37.14	22.32

Work on a swing stage scaffold: \$1.00 per hour additional.

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LAB01130-002 06/25/2018

MARIPOSA, MERCED, STANISLAUS, AND TUOLUMNE COUNTIES

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person..	\$ 29.54	23.65
Traffic Control Person I...	\$ 29.84	23.65
Traffic Control Person II...	\$ 27.34	23.65

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

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LAB01130-003 06/26/2017

MARIPOSA, MERCED, STANISLAUS, AND TUOLUMNE COUNTIES

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1.....	\$ 36.60	24.83
GROUP 2.....	\$ 36.37	24.83
GROUP 3.....	\$ 36.12	24.83
GROUP 4.....	\$ 35.67	24.83
GROUP 5.....	\$ 35.13	24.83
Shotcrete Specialist.....	\$ 37.12	24.83

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Guniting and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Guniting & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

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LAB01130-005 07/01/2018

MARIPOSA, MERCED, STANISLAUS AND TUOLUMNE COUNTIES

	Rates	Fringes
LABORER		
Mason Tender-Brick.....	\$ 31.20	22.20

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LAB01130-007 06/25/2018

MARIPOSA, MERCED, STANISLAUS, AND TUOLUMNE , COUNTIES

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT		
LABORERS - AREA B:)		
Construction Specialist		
Group.....	\$ 30.49	23.20
GROUP 1.....	\$ 29.79	23.20
GROUP 1-a.....	\$ 30.01	23.20
GROUP 1-c.....	\$ 29.84	23.20
GROUP 1-e.....	\$ 30.34	23.20
GROUP 1-f.....	\$ 29.37	23.20
GROUP 2.....	\$ 29.64	23.20
GROUP 3.....	\$ 29.54	23.20
GROUP 4.....	\$ 23.23	23.20
See groups 1-b and 1-d under laborer classifications.		
LABORER (GARDENERS,		
HORTICULTURAL & LANDSCAPE		
LABORERS - AREA B:)		
(1) New Construction.....	\$ 29.54	23.20
(2) Establishment Warranty		
Period.....	\$ 23.23	23.20
LABORER (GUNITE - AREA B:)		
GROUP 1.....	\$ 29.75	22.31
GROUP 2.....	\$ 29.25	22.31
GROUP 3.....	\$ 28.66	22.31
GROUP 4.....	\$ 28.54	22.31
LABORER (WRECKING - AREA B:)		
GROUP 1.....	\$ 29.79	23.20
GROUP 2.....	\$ 29.64	23.20

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

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LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and bucket; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and

rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. ""Sewer cleaner"" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$ .25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shotcrete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification ""material cleaner"" is to be utilized under the following conditions:

- A: at demolition site for the salvage of the material.
- B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
- C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of ""form stripping, cleaning and oiling and moving to the next point of erection"".

#### GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzlemans

GROUP 2: Nozzlemans, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Gunite laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LAB01130-008 07/01/2018

CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS & TUOLUMNE

	Rates	Fringes
Plasterer tender.....	\$ 32.02	23.00

Work on a swing stage scaffold: \$1.00 per hour additional.

LAB01130-009 07/01/2018

MARIPOSA, MERCED, STANISLAUS, AND TUOLUMNE COUNTIES

	Rates	Fringes
LABORER (Plaster Tender).....	\$ 32.02	23.00

Work on a swing stage scaffold: \$1.00 per hour additional.

PAIN0016-001 01/01/2019

ALAMEDA, CONTRA COSTA, MONTEREY, SAN BENITO, SAN MATEO, SANTA CLARA, AND SANTA CRUZ COUNTIES

	Rates	Fringes
Painters:.....	\$ 42.67	24.03

PREMIUMS:

EXOTIC MATERIALS - \$0.75 additional per hour.

SPRAY WORK: - \$0.50 additional per hour.

INDUSTRIAL PAINTING - \$0.25 additional per hour

[Work on industrial buildings used for the manufacture and processing of goods for sale or service; steel construction (bridges), stacks, towers, tanks, and similar structures]

HIGH WORK:

over 50 feet - \$2.00 per hour additional

100 to 180 feet - \$4.00 per hour additional

Over 180 feet - \$6.00 per hour additional

PAIN0016-003 06/01/2020

AREA 1: ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO & SANTA CLARA COUNTIES

AREA 2: CALAVERAS, MARIPOSA, MERCED, MONTEREY, SAN BENITO, SAN JOAQUIN, SANTA CRUZ, STANISLAUS & TUOLUMNE COUNTIES

	Rates	Fringes
Drywall Finisher/Taper		
AREA 1.....	\$ 51.51	27.39
AREA 2.....	\$ 47.38	25.99

PAIN0016-012 01/01/2019

ALAMEDA, CONTRA COSTA, MARIPOSA, MERCED, MONTEREY, SAN BENITO, SAN FRANCISCO, SAN MATEO, SANTA CLARA AND SANTA CRUZ COUNTIES

	Rates	Fringes
SOFT FLOOR LAYER.....	\$ 48.60	27.43

PAIN0016-015 01/01/2019

CALAVERAS, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS & TUOLUMNE COUNTIES



	Rates	Fringes
PAINTER		
Brush.....	\$ 33.68	20.24

FOOTNOTES:  
 SPRAY/SANDBLAST: \$0.50 additional per hour.  
 EXOTIC MATERIALS: \$1.00 additional per hour.  
 HIGH TIME: Over 50 ft above ground or water level \$2.00 additional per hour. 100 to 180 ft above ground or water level \$4.00 additional per hour. Over 180 ft above ground or water level \$6.00 additional per hour.

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 PAIN0016-022 01/01/2019

SAN FRANCISCO COUNTY

	Rates	Fringes
PAINTER.....	\$ 46.29	24.03

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 PAIN0169-001 06/01/2020

FRESNO, KINGS, MADERA, MARIPOSA AND MERCED COUNTIES:

	Rates	Fringes
GLAZIER.....	\$ 40.00	26.76

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 PAIN0169-005 07/01/2020

ALAMEDA CONTRA COSTA, MONTEREY, SAN BENITO, SAN FRANCISCO, SAN MATEO, SANTA CLARA & SANTA CRUZ COUNTIES

	Rates	Fringes
GLAZIER.....	\$ 52.17	30.55

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 PAIN0294-004 06/01/2020

FRESNO, KINGS AND MADERA COUNTIES

	Rates	Fringes
PAINTER		
Brush, Roller.....	\$ 30.18	20.21
Drywall Finisher/Taper.....	\$ 40.10	25.00

FOOTNOTE:  
 Spray Painters & Paperhangers recive \$1.00 additional per hour. Painters doing Drywall Patching receive \$1.25 additional per hour. Lead Abaters & Sandblasters receive \$1.50 additional per hour. High Time - over 30 feet (does not include work from a lift) \$0.75 per hour additional.

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 PAIN0294-005 06/01/2020

FRESNO, KINGS & MADERA

	Rates	Fringes
SOFT FLOOR LAYER.....	\$ 33.30	21.42

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 PAIN0767-001 07/01/2020

CALAVERAS, SAN JOAQUIN, STANISLAUS AND TUOLUMNE COUNTIES:

	Rates	Fringes
GLAZIER.....	\$ 40.61	30.76

PAID HOLIDAYS: New Year's Day, Martin Luther King, Jr. Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day.

Employee rquired to wear a body harness shall receive \$1.50 per hour above the basic hourly rate at any elevation.

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 PAIN1176-001 07/01/2020

HIGHWAY IMPROVEMENT

	Rates	Fringes
Parking Lot Striping/Highway Marking:		
GROUP 1.....	\$ 38.48	16.88
GROUP 2.....	\$ 32.71	16.88
GROUP 3.....	\$ 33.09	16.88

# CLASSIFICATIONS

GROUP 1: Striper: Layout and application of painted traffic stripes and marking; hot thermo plastic; tape, traffic stripes and markings

GROUP 2: Gamecourt & Playground Installer

GROUP 3: Protective Coating, Pavement Sealing

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PAIN1237-003 01/01/2020

CALAVERAS; SAN JOAQUIN COUNTIES; STANISLAUS AND TUOLUMNE COUNTIES:

	Rates	Fringes
SOFT FLOOR LAYER.....	\$ 39.61	22.59

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PLAS0066-002 07/01/2019

ALAMEDA, CONTRA COSTA, SAN MATEO AND SAN FRANCISCO COUNTIES:

	Rates	Fringes
PLASTERER.....	\$ 42.41	30.73

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PLAS0300-001 07/01/2018

	Rates	Fringes
PLASTERER		
AREA 188: Fresno.....	\$ 32.70	31.68
AREA 224: San Benito, Santa Clara, Santa Cruz....	\$ 32.88	31.68
AREA 295: Calaveras & San Joaquin Couonties.....	\$ 32.70	31.68
AREA 337: Monterey County..	\$ 32.88	31.68
AREA 429: Mariposa, Merced, Stanislaus, Tuolumne Counties.....	\$ 32.70	31.68

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PLAS0300-005 07/01/2017

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 33.49	23.67

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PLUM0038-001 07/01/2020

SAN FRANCISCO COUNTY

	Rates	Fringes
PLUMBER (Plumber, Steamfitter, Refrigeration Fitter).....	\$ 75.30	46.27

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PLUM0038-005 07/01/2019

SAN FRANCISCO COUNTY

	Rates	Fringes
Landscape/Irrigation Fitter (Underground/Utility Fitter).....	\$ 63.04	31.48

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PLUM0062-001 07/01/2020

MONTEREY AND SANTA CRUZ COUNTIES

	Rates	Fringes
PLUMBER & STEAMFITTER.....	\$ 45.00	35.99

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PLUM0159-001 07/01/2019

CONTRA COSTA COUNTY

	Rates	Fringes
Plumber and steamfitter		
(1) Refrigeration.....	\$ 56.93	41.04
(2) All other work.....	\$ 57.82	41.04

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PLUM0246-001 07/01/2020

FRESNO, KINGS & MADERA COUNTIES

	Rates	Fringes
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PLUMBER & STEAMFITTER.....\$ 42.65	34.64
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PLUM0246-004 01/01/2017

FRESNO, MERCED & SAN JOAQUIN COUNTIES

	Rates	Fringes
PLUMBER (PIPE TRADESMAN).....\$ 13.00		10.74

PIPE TRADESMAN SCOPE OF WORK:  
 Installation of corrugated metal piping for drainage, as well as installation of corrugated metal piping for culverts in connection with storm sewers and drains; Grouting, dry packing and diapering of joints, holes or chases including paving over joints, in piping; Temporary piping for dirt work for building site preparation; Operating jack hammers, pavement breakers, chipping guns, concrete saws and spades to cut holes, chases and channels for piping systems; Digging, grading, backfilling and ground preparation for all types of pipe to all points of the jobsite; Ground preparation including ground leveling, layout and planting of shrubbery, trees and ground cover, including watering, mowing, edging, pruning and fertilizing, the breaking of concrete, digging, backfilling and tamping for the preparation and completion of all work in connection with lawn sprinkler and landscaping; Loading, unloading and distributing materials at jobsite; Putting away materials in storage bins in jobsite secure storage area; Demolition of piping and fixtures for remodeling and additions; Setting up and tearing down work benches, ladders and job shacks; Clean-up and sweeping of jobsite; Pipe wrapping and waterproofing where tar or similar material is applied for protection of buried piping; Flagman

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PLUM0342-001 07/01/2018

ALAMEDA & CONTRA COSTA COUNTIES

	Rates	Fringes
PIPEFITTER		
CONTRA COSTA COUNTY.....\$ 58.68		42.40
PLUMBER, PIPEFITTER, STEAMFITTER		
ALAMEDA COUNTY.....\$ 58.68		42.40

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PLUM0355-004 07/01/2020

ALAMEDA, CALAVERAS, CONTRA COSTA, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, MONTEREY, SAN BENITO, SAN JOAQUIN, SAN MATEO, SANTA CLARA, SANTA CRUZ, STANISLAUS, AND TUOLUMNE COUNTIES:

	Rates	Fringes
Underground Utility Worker /Landscape Fitter.....\$ 29.90		16.30

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PLUM0393-001 07/01/2020

SAN BENITO AND SANTA CLARA COUNTIES

	Rates	Fringes
PLUMBER/PIPEFITTER.....\$ 66.66		44.83

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PLUM0442-001 07/01/2020

CALAVERAS, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS & TUOLUMNE COUNTIES

	Rates	Fringes
PLUMBER & STEAMFITTER.....\$ 45.50		31.89

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PLUM0467-001 07/01/2020

SAN MATEO COUNTY

	Rates	Fringes
Plumber/Pipefitter/Steamfitter...\$ 70.00		37.86

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ROOF0027-002 01/01/2020

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
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ROOFER.....\$ 31.11 14.41

FOOTNOTE: Work with pitch, pitch base of pitch impregnated products or any material containing coal tar pitch, on any building old or new, where both asphalt and pitchers are used in the application of a built-up roof or tear off: \$2.00 per hour additional.

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ROOF0040-002 08/01/2020

SAN FRANCISCO & SAN MATEO COUNTIES:

	Rates	Fringes
ROOFER.....	\$ 44.38	19.69

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ROOF0081-001 08/01/2019

ALAMEDA AND CONTRA COSTA COUNTIES:

	Rates	Fringes
Roofer.....	\$ 40.10	18.88

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ROOF0081-004 08/01/2020

CALAVERAS, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS AND TUOLUMNE COUNTIES:

	Rates	Fringes
ROOFER.....	\$ 39.73	19.11

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ROOF0095-002 08/01/2020

MONTEREY, SAN BENITO, SANTA CLARA, AND SANTA CRUZ COUNTIES:

	Rates	Fringes
ROOFER		
Journeyman.....	\$ 46.54	20.69
Kettle person (2 kettles); Bitumastic, Enameler, Coal Tar, Pitch and Mastic worker.....	\$ 48.54	20.69

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SFCA0483-001 07/29/2019

ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO AND SANTA CLARA COUNTIES:

	Rates	Fringes
SPRINKLER FITTER (FIRE).....	\$ 65.52	32.67

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SFCA0669-011 04/01/2020

CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, MONTEREY, SAN BENITO, SAN JOAQUIN, SANTA CRUZ, STANISLAUS AND TUOLUMNE COUNTIES:

	Rates	Fringes
SPRINKLER FITTER.....	\$ 38.95	25.63

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SHEE0104-001 07/01/2019

AREA 1: ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO, SANTA CLARA

AREA 2: MONTEREY & SAN BENITO

AREA 3: SANTA CRUZ

	Rates	Fringes
SHEET METAL WORKER		
AREA 1:		
Mechanical Contracts		
under \$200,000.....	\$ 53.67	44.62
All Other Work.....	\$ 61.36	46.11
AREA 2.....	\$ 50.82	35.85
AREA 3.....	\$ 60.97	34.07

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SHEE0104-003 07/01/2019

CALAVERAS AND SAN JOAQUIN COUNTIES:

	Rates	Fringes
SHEET METAL WORKER.....	\$ 41.20	36.84
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SHEE0104-005 07/01/2020		

MARIPOSA, MERCED, STANISLAUS AND TUOLUMNE COUNTIES:

	Rates	Fringes
SHEET METAL WORKER (Excluding metal deck and siding).....	\$ 40.38	43.47
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SHEE0104-007 07/01/2019		

FRESNO, KINGS, AND MADERA COUNTIES:

	Rates	Fringes
SHEET METAL WORKER.....	\$ 40.03	39.06
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SHEE0104-015 07/01/2019		

ALAMEDA, CONTRA COSTA, MONTEREY, SAN BENITO, SAN FRANCISCO, SAN MATEO, SANTA CLARA AND SANTA CRUZ COUNTIES:

	Rates	Fringes
SHEET METAL WORKER (Metal Decking and Siding only).....	\$ 42.33	35.30
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SHEE0104-018 07/01/2019		

CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS AND TUOLUMNE COUNTIES:

	Rates	Fringes
Sheet metal worker (Metal decking and siding only).....	\$ 42.33	35.30
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TEAM0094-001 07/01/2018		

	Rates	Fringes
Truck drivers:		
GROUP 1.....	\$ 31.68	27.86
GROUP 2.....	\$ 31.98	27.86
GROUP 3.....	\$ 32.28	27.86
GROUP 4.....	\$ 32.63	27.86
GROUP 5.....	\$ 32.98	27.86

#### FOOTNOTES:

Articulated dump truck; Bulk cement spreader (with or without auger); Dumpcrete truck; Skid truck (debris box); Dry pre-batch concrete mix trucks; Dumpster or similar type; Slurry truck: Use dump truck yardage rate.  
Heater planer; Asphalt burner; Scarifier burner; Industrial lift truck (mechanical tailgate); Utility and clean-up truck: Use appropriate rate for the power unit or the equipment utilized.

#### TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Dump trucks, under 6 yds.; Single unit flat rack (2-axle unit); Nipper truck (when flat rack truck is used appropriate flat rack shall apply); Concrete pump truck (when flat rack truck is used appropriate flat rack shall apply); Concrete pump machine; Fork lift and lift jitneys; Fuel and/or grease truck driver or fuel person; Snow buggy; Steam cleaning; Bus or personhaul driver; Escort or pilot car driver; Pickup truck; Teamster oiler/greaser and/or serviceperson; Hook tender (including loading and unloading); Team driver; Tool room attendant (refineries)

GROUP 2: Dump trucks, 6 yds. and under 8 yds.; Transit mixers, through 10 yds.; Water trucks, under 7,000 gals.; Jetting trucks, under 7,000 gals.; Single-unit flat rack (3-axle unit); Highbed heavy duty transport; Scissor truck; Rubber-tired muck car (not self-loaded); Rubber-tired truck jumbo; Winch truck and "A" frame drivers; Combination winch truck with hoist; Road oil truck or bootperson; Buggymobile; Ross, Hyster and similar straddle carriers; Small rubber-tired tractor

GROUP 3: Dump trucks, 8 yds. and including 24 yds.; Transit mixers, over 10 yds.; Water trucks, 7,000 gals. and over; Jetting trucks, 7,000 gals. and over; Vacuum trucks under 7500 gals. Trucks towing tilt bed or flat bed pull trailers; Lowbed heavy duty transport; Heavy duty transport

tiller person; Self- propelled street sweeper with self-contained refuse bin; Boom truck - hydro-lift or Swedish type extension or retracting crane; P.B. or similar type self-loading truck; Tire repairperson; Combination bootperson and road oiler; Dry distribution truck (A bootperson when employed on such equipment, shall receive the rate specified for the classification of road oil trucks or bootperson); Ammonia nitrate distributor, driver and mixer; Snow Go and/or plow

GROUP 4: Dump trucks, over 25 yds. and under 65 yds.; Water pulls - DW 10's, 20's, 21's and other similar equipment when pulling Aqua/pak or water tank trailers; Helicopter pilots (when transporting men and materials); Lowbed Heavy Duty Transport up to including 7 axles; DW10's, 20's, 21's and other similar Cat type, Terra Cobra, LeTourneau Pulls, Tournorocker, Euclid and similar type equipment when pulling fuel and/or grease tank trailers or other miscellaneous trailers; Vacuum Trucks 7500 gals and over and truck repairman

GROUP 5: Dump trucks, 65 yds. and over; Holland hauler; Low bed Heavy Duty Transport over 7 axles

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.  
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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that

classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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#### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"





GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: # ASBESTOS WORKER, HEAT AND FROST INSULATOR**

**DETERMINATION:** NC-3-16-1-2020-2

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** July 31, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Classification (Journey person)	Basic Hourly Rate	Employer Payments					Straight-Time		Overtime Hourly Rate	
		Health and Welfare	Pension	Vacation/ Holiday	Training	Other Payments	Hours	Total Hourly Rate	1-1/2X	2X
<b>ZONE 1</b>										
Mechanic	\$74.16 <sup>a</sup>	\$14.50	\$7.72 <sup>b</sup>	<sup>c</sup>	\$1.35	\$0.34 <sup>d</sup>	8	\$98.07	\$135.15 <sup>e</sup>	\$172.23 <sup>f</sup>
<b>ZONE 2</b>										
Mechanic	\$56.71 <sup>a</sup>	\$14.50	\$7.72 <sup>b</sup>	<sup>c</sup>	\$1.35	\$0.34 <sup>d</sup>	8	\$80.62	\$108.98 <sup>e</sup>	\$137.33 <sup>f</sup>

**ZONE 1** – Alameda, Contra Costa, Marin, Napa, San Benito, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma.

**ZONE 2** – Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Mariposa, Mendocino, Merced, Modoc, Mono, Monterey, Nevada, Placer, Plumas, Sacramento, San Joaquin, Santa Cruz, Shasta, Sierra, Siskiyou, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba.

**DETERMINATION:** NC-3-16-3-2020-2

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** December 31, 2020\* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit at (415) 703-4774 for the new rates after ten days after the expiration date if no subsequent determination is issued.

**LOCALITY:** Mono and all Northern California Counties

Hazardous Material Handler Mechanic	37.03 <sup>g</sup>	8.06	2.25	<sup>c</sup>	0.30	0.08 <sup>h</sup>	8 <sup>m</sup>	47.72	66.24 <sup>i</sup>	84.75 <sup>j</sup>
Hazardous Material Handler Worker <sup>k</sup>	27.31 <sup>g</sup>	8.06	1.50	-	0.30	0.06 <sup>l</sup>	8 <sup>m</sup>	37.23	50.89 <sup>i</sup>	64.54 <sup>j</sup>

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> Includes an amount withheld for dues check off and for vacation.

<sup>b</sup> Pursuant to Labor Code sections 1773.1 and 1773.8, the amount paid for this employer payment may vary resulting in a lower taxable basic hourly wage rate, but the total hourly rates for straight time and overtime may not be less than the general prevailing rate of per diem wages.

<sup>c</sup> Included in the straight-time hourly rate.

<sup>d</sup> Includes \$0.30 per hour worked for Industry Promotion, \$0.01 per hour worked for Occupational Health and Research, \$0.02 per hour worked for Vacation/Holiday Administration and \$0.01 per hour worked for Preservation Trust.

<sup>e</sup> 1 ½ times the basic straight-time hourly rate for the first 2 hours of overtime, Monday through Friday and for the first 10 hours on Saturdays. All other overtime is paid at the double time rate.

<sup>f</sup> \$246.39 (ZONE 1) and \$194.04 (ZONE 2) per hour for work on Labor Day.

<sup>g</sup> Includes amount withheld for dues check off.

<sup>h</sup> Includes amount for Vacation/Holiday Administration and Industry Promotion.

<sup>i</sup> Rate applies to the first 4 overtime hours in any workday or 40 hours in a workweek, and for the first 8 hours worked on the 7<sup>th</sup> consecutive day of work in a workweek.

<sup>j</sup> Rate applies to work on any recognized holiday, all hours worked in excess of 12 hours in any workday, and for all hours worked in excess of 8 hours on the 7<sup>th</sup> consecutive day of work in a workweek.

<sup>k</sup> A maximum of fourteen (14) Hazardous Material Handler Workers is allowed for each Hazardous Material Handler Mechanic.

<sup>l</sup> Includes amount for Industry Promotion.

<sup>m</sup> The 6<sup>th</sup> consecutive day in the same work week may be worked at straight-time if job is shut down during the normal work week due to inclement weather, major mechanical breakdown or lack of materials beyond the control of the employer.

**NOTE:** Asbestos Removal Workers must be trained and the work conducted according to the Code of Federal Regulations 29 CFR 1926.58, the California Labor Code 6501.5 and the California Code of Regulations, Title 8, Section 5208. Contractors must be certified by the Contractors' State License Board and registered with the Division of Occupational Safety and Health (DOSH). For further information, contact the Asbestos Contractors Abatement Registration Unit, DOSH at (510) 286-7362.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1  
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #CARPENTER AND RELATED TRADES

**DETERMINATION:** NC-23-31-1-2020-1

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All Localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

CLASSIFICATION (Journeyperson)					Employer Payments						Straight – Time		Overtime Hourly Rate <sup>c</sup>				Sunday and Holiday <sup>j</sup>
					Basic Hourly Rate	Health and Welfare	Pension	Vacation/ Holiday <sup>d</sup>	Training	Other Payments <sup>e</sup>	Hours	Total Hourly Rate	Daily  1 1/2X <sup>f</sup>	2X	Saturday <sup>g</sup>  1 1/2X <sup>g</sup> 2X		
<b><sup>b</sup> Area 1</b>																	
Carpenter	Floorlayer, Saw Filer, Shingler, Scaffold and Steel Shoring Erector	Power Operator	Saw Steel	\$52.65	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	8	\$83.76	\$110.085	\$136.41	\$110.085	\$136.41	\$136.41	
Hardwood Operator				\$52.80	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	8	\$83.91	\$110.31	\$136.71	\$110.31	\$136.71	\$136.71	
<b><sup>b</sup> Area 2</b>																	
Carpenter	Floorlayer, Saw Filer, Shingler, Scaffold and Steel Shoring Erector	Power Operator	Saw Steel	\$46.77	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	8	\$77.88	\$101.265	\$124.65	\$101.265	\$124.65	\$124.65	
Hardwood Operator				\$46.92	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	8	\$78.03	\$101.49	\$124.95	\$101.49	\$124.95	\$124.95	
<b><sup>b</sup> Area 3<sup>j</sup></b>																	
Carpenter	Floorlayer, Saw Filer, Shingler, Scaffold and Steel Shoring Erector	Power Operator	Saw Steel	\$46.77	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	8	\$77.88	\$101.265	\$124.65	\$101.265	\$124.65	\$124.65	
Hardwood Operator				\$46.92	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	8	\$78.03	\$101.49	\$124.95	\$101.49	\$124.95	\$124.95	
<b><sup>b</sup> Area 4<sup>j</sup></b>																	
Carpenter	Floorlayer, Saw Filer, Shingler, Scaffold and Steel Shoring Erector	Power Operator	Saw Steel	\$45.42	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	8	\$76.53	\$99.24	\$121.95	\$99.24	\$121.95	\$121.95	
Hardwood Operator				\$45.57	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	8	\$76.68	\$99.465	\$122.25	\$99.465	\$122.25	\$122.25	

**DETERMINATION:** NC-23-31-1-2020-1A

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All Localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

CLASSIFICATION (Journey person)	Basic Hourly Rate	Employer Payments					Straight – Time		Daily	Overtime Hourly Rate <sup>c</sup>			
		Health and Welfare	Pension	Vacation/ Holiday <sup>d</sup>	Training	Other Payments <sup>e</sup>	Hours	Total Hourly Rate		1 1/2X <sup>f</sup>	2X	1 1/2X <sup>g</sup>	2X
Bridge Builder/Highway Carpenter	\$52.65	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	8.0	\$83.76	\$110.085	\$136.41	\$110.085	\$136.41	\$136.41
Bridge Builder/Highway Carpenter (Special Single Shift)	\$59.23	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	8.0	\$90.34	\$119.955	\$149.57	\$119.955	\$149.57	\$149.57

**Footnote and Millwright listed on page 34A**

(Recognized Holidays and Subsistence Payment footnotes also listed on page 34A)

**DETERMINATION:** NC-23-31-1-2020-1B

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All Localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

CLASSIFICATION (Journey person)	Basic Hourly Rate	Employer Payments					Straight – Time		Daily 1 1/2X <sup>f</sup>	2X	Overtime Hourly Rate <sup>c</sup>		Sunday and Holiday <sup>j</sup>
		Health and Welfare	Pension	Vacation/ Holiday <sup>d</sup>	Training	Other Payments <sup>h</sup>	Hours	Total Hourly Rate			Saturday <sup>g</sup>	2X	
<sup>b</sup> <b>Area 1</b> Millwright	\$52.75	\$11.70	\$10.65	\$5.18	\$1.03	\$4.15	8	\$85.46	\$111.835	\$138.21	\$111.835	\$138.21	\$138.21
<sup>b</sup> <b>Area 2</b> Millwright	\$49.27	\$11.70	\$10.65	\$5.18	\$1.03	\$4.15	8	\$81.98	\$106.615	\$131.25	\$106.615	\$131.25	\$131.25
<sup>b</sup> <b>Area 3<sup>j</sup></b> Millwright	\$49.27	\$11.70	\$10.65	\$5.18	\$1.03	\$4.15	8	\$81.98	\$106.615	\$131.25	\$106.615	\$131.25	\$131.25
<sup>b</sup> <b>Area 4<sup>j</sup></b> Millwright	\$47.92	\$11.70	\$10.65	\$5.18	\$1.03	\$4.15	8	\$80.63	\$104.59	\$128.55	\$104.59	\$128.55	\$128.55

**DETERMINATION:** NC-23-31-1-2020-1, NC-23-31-1-2020-1A and NC-23-31-1-2020-1B

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> In the event that work cannot be performed Monday through Friday because of inclement weather or major mechanical breakdown, employees may voluntarily make up such day on Saturday and shall be paid at the applicable straight time rates.

<sup>b</sup> **AREA 1** - Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties.

**AREA 2** - Monterey, San Benito, and Santa Cruz Counties.

**AREA 3** - El Dorado, Placer, Sacramento, San Joaquin and Yolo Counties.

**AREA 4** - Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Mariposa, Mendocino, Merced, Modoc, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, and Yuba Counties.

<sup>c</sup> The overtime rates for shift work are based on the non-shift overtime rates.

<sup>d</sup> Includes an amount per hour worked for Work Fees. The Vacation amount is \$2.95 per hour worked for Carpenter; \$2.85 per hour worked for Millwright.

<sup>e</sup> Includes Annuity Trust Fund, Industry Promotion, Carpenters International Training Fund, Work Preservation, Carpenter Employers Contract Administration, and Vacation/Holiday/Sick Leave Admin.

<sup>f</sup> For building construction, rate applies to the first 4 hours daily overtime. For all heavy, highway and engineering construction overtime worked, Monday through Friday, rate applies to the first 4 hours daily overtime.

<sup>g</sup> Rate applies to the first 8 hours for building construction and for the first 10 hours worked on heavy, highway and engineering construction.

<sup>h</sup> Millwright Annuity Trust Fund, Industry Promotion, Work Preservation, Carpenters International Training Fund, and Vacation/Holiday/Sick Leave Admin.

<sup>i</sup> Time and one-half shall be paid for the first eight (8) hours worked on the four (4) days of each year selected by the Union as designated off/holidays listed in the Holiday Provision.

<sup>j</sup> Area 3 includes the portion of Placer County west of and including Highway 49 and the portion of El Dorado County west of and including Highway 49 and the territory inside the city limits of Placerville. Area 4 includes the portions of Placer and El Dorado Counties not covered in Area 3.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1  
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #CARPENTER AND RELATED TRADES (SECOND SHIFT)\*

**DETERMINATION:** NC-23-31-1-2020-1

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All Localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

CLASSIFICATION (Journeyperson)	Basic Hourly Rate	Employer Payments					Straight – Time		Daily	Overtime Hourly Rate <sup>a</sup>				
		Health and Welfare	Pension	Vacation/ Holiday <sup>c</sup>	Training	Other Payments <sup>f</sup>	Hours <sup>g</sup>	Total Hourly Rate		Saturday <sup>b</sup>				
										1 1/2X <sup>h</sup>	2X	1 1/2X <sup>i</sup>	2X	Sunday and Holiday <sup>k</sup>
° Area 1														
Carpenter Hardwood Floorlayer, Power Operator, Saw Filer, Shingler, Scaffold and Steel Shoring Erector	\$56.16	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	7.5	\$87.27	\$110.09	\$136.41	\$110.09	\$136.41	\$136.41	
	\$56.32	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	7.5	\$87.43	\$110.31	\$136.71	\$110.31	\$136.71	\$136.71	
° Area 2														
Carpenter Hardwood Floorlayer, Power Operator, Saw Filer, Shingler, Scaffold and Steel Shoring Erector	\$49.89	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	7.5	\$81.00	\$101.27	\$124.65	\$101.27	\$124.65	\$124.65	
	\$50.05	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	7.5	\$81.16	\$101.49	\$124.95	\$101.49	\$124.95	\$124.95	
° Area 3 <sup>1</sup>														
Carpenter Hardwood Floorlayer, Power Operator, Saw Filer, Shingler, Scaffold and Steel Shoring Erector	\$49.89	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	7.5	\$81.00	\$101.27	\$124.65	\$101.27	\$124.65	\$124.65	
	\$50.05	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	7.5	\$81.16	\$101.49	\$124.95	\$101.49	\$124.95	\$124.95	
° Area 4 <sup>1</sup>														
Carpenter Hardwood Floorlayer, Power Operator, Saw Filer, Shingler, Scaffold and Steel Shoring Erector	\$48.45	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	7.5	\$79.56	\$99.24	\$121.95	\$99.24	\$121.95	\$121.95	
	\$48.61	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	7.5	\$79.72	\$99.47	\$122.25	\$99.47	\$122.25	\$122.25	

**DETERMINATION:** NC-23-31-1-2020-1A

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All Localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

CLASSIFICATION (Journey person)	Basic Hourly Rate	Employer Payments					Straight – Time		Daily	Overtime Hourly Rate <sup>a</sup>			
		Health and Welfare	Pension	Vacation/ Holiday <sup>c</sup>	Training	Other Payments <sup>f</sup>	Hours <sup>g</sup>	Total Hourly Rate		1 1/2X <sup>h</sup>	2X	Saturday <sup>b</sup>	Sunday and Holiday <sup>k</sup>
Bridge Builder/Highway Carpenter	\$56.16	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	7.5	\$87.27	\$110.09	\$136.41	\$110.09	\$136.41	\$136.41

Continued on page 34C

(Recognized Holidays and Subsistence Payment footnotes also listed on page 34C)

**DETERMINATION:** NC-23-31-1-2020-1B

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All Localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

CLASSIFICATION (Journey person)	Basic Hourly Rate	Health and Welfare	Employer Payments				Straight – Time		Daily	Overtime Hourly Rate <sup>a</sup>			
			Pension	Vacation/ Holiday <sup>c</sup>	Training	Other Payments <sup>j</sup>	Hours <sup>g</sup>	Total Hourly Rate		Saturday <sup>b</sup>		Sunday and Holiday <sup>k</sup>	
										1 1/2X <sup>h</sup>	2X	1 1/2X <sup>i</sup>	2X
<sup>c</sup> <b>Area 1</b>													
Millwright	\$56.27	\$11.70	\$10.65	\$5.18	\$1.03	\$4.15	7.5	\$88.98	\$111.84	\$138.21		\$111.84	\$138.21
<sup>c</sup> <b>Area 2</b>													
Millwright	\$52.55	\$11.70	\$10.65	\$5.18	\$1.03	\$4.15	7.5	\$85.26	\$106.62	\$131.25		\$106.62	\$131.25
<sup>c</sup> <b>Area 3<sup>d</sup></b>													
Millwright	\$52.55	\$11.70	\$10.65	\$5.18	\$1.03	\$4.15	7.5	\$85.26	\$106.62	\$131.25		\$106.62	\$131.25
<sup>c</sup> <b>Area 4<sup>d</sup></b>													
Millwright	\$51.11	\$11.70	\$10.65	\$5.18	\$1.03	\$4.15	7.5	\$83.82	\$104.59	\$128.55		\$104.59	\$128.55

**DETERMINATION:** NC-23-31-1-2020-1, NC-23-31-1-2020-1A and NC-23-31-1-2020-1B (FOR SECOND AND THIRD SHIFTS)

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

\* Does not apply to tenant improvement or renovation projects in occupied buildings with a total contract value of \$5 million or less.

<sup>a</sup> The overtime rates for shift work are based on the non-shift overtime rates on page 34.

<sup>b</sup> In the event that work cannot be performed Monday through Friday because of inclement weather or major mechanical breakdown, employees may voluntarily make up such day on Saturday and shall be paid at the applicable straight time rates.

<sup>c</sup> **AREA 1** - Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties.

**AREA 2** - Monterey, San Benito, and Santa Cruz Counties.

**AREA 3** - El Dorado, Placer, Sacramento, San Joaquin and Yolo Counties.

**AREA 4** - Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Mariposa, Mendocino, Merced, Modoc, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, and Yuba Counties.

<sup>d</sup> Area 3 includes the portion of Placer County west of and including Highway 49 and the portion of El Dorado County west of and including Highway 49 and the territory inside the city limits of Placerville. Area 4 includes the portions of Placer and El Dorado Counties not covered in Area 3.

<sup>e</sup> Includes an amount per hour worked for Work Fees. The Vacation amount is \$2.95 per hour worked for Carpenter; \$2.85 per hour worked for Millwright.

<sup>f</sup> Annuity Trust Fund, Industry Promotion, Carpenters International Training Fund, Carpenter Employers Contract Administration, and Vacation/Holiday/Sick Leave Admin.

<sup>g</sup> Daily overtime applies after 7 ½ hours worked at the straight-time rate for second shift and after 7 hours worked at the straight-time rate for third shift.

<sup>h</sup> For building construction, rate applies to the first 2 hours prior to the start of the regular or approved day, or the first 4 hours after the end of the approved or regular work day, not to exceed a total of 4 hours in any 1 work day. For heavy, highway and engineering construction rate applies to the first 4 hours prior to the start of the regular or approved day, or the first 4 hours after the end of the approved or regular work day, not to exceed a total of 4 hours in any 1 work day

<sup>i</sup> Rate applies to the first 8 hours for building construction and for the first 10 hours worked on heavy, highway and engineering construction.

<sup>j</sup> Millwright Annuity Trust Fund, Industry Promotion, Carpenters International Training Fund, Work Preservation, and Vacation/Holiday/Sick Leave Admin.

<sup>k</sup> Time and one-half shall be paid for the first eight (8) hours worked on the four (4) days of each year selected by the Union as designated off/holidays listed in the Holiday Provision.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1  
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #CARPENTER AND RELATED TRADES (THIRD SHIFT)\*

**DETERMINATION:** NC-23-31-1-2020-1

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All Localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

CLASSIFICATION (Journey person)				Basic Hourly Rate	Employer Payments			Straight – Time		Overtime Hourly Rate <sup>a</sup>						
					Health and Welfare	Pension	Vacation/ Holiday <sup>c</sup>	Training	Other Payments <sup>f</sup>	Hours <sup>g</sup>	Total Hourly Rate	Daily  1 1/2X <sup>h</sup>	2X	Saturday <sup>b</sup>  1 1/2X <sup>i</sup> 2X		Sunday and Holiday <sup>k</sup>
<sup>c</sup> Area 1																
Carpenter				\$60.17	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	7	\$91.28	\$110.09	\$136.41	\$110.09	\$136.41	\$136.41
Hardwood Floorlayer, Power Operator, Saw Filer, Shingler, Scaffold and Steel Shoring Erector	Saw Steel			\$60.34	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	7	\$91.45	\$110.31	\$136.71	\$110.31	\$136.71	\$136.71
<sup>c</sup> Area 2																
Carpenter				\$53.45	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	7	\$84.56	\$101.27	\$124.65	\$101.27	\$124.65	\$124.65
Hardwood Floorlayer, Power Operator, Saw Filer, Shingler, Scaffold and Steel Shoring Erector	Saw Steel			\$53.62	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	7	\$84.73	\$101.49	\$124.95	\$101.49	\$124.95	\$124.95
<sup>c</sup> Area 3 <sup>l</sup>																
Carpenter				\$53.45	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	7	\$84.56	\$101.27	\$124.65	\$101.27	\$124.65	\$124.65
Hardwood Floorlayer, Power Operator, Saw Filer, Shingler, Scaffold and Steel Shoring Erector	Saw Steel			\$53.62	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	7	\$84.73	\$101.49	\$124.95	\$101.49	\$124.95	\$124.95
<sup>c</sup> Area 4 <sup>l</sup>																
Carpenter				\$51.91	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	7	\$83.02	\$99.24	\$121.95	\$99.24	\$121.95	\$121.95
Hardwood Floorlayer, Power Operator, Saw Filer, Shingler, Scaffold and Steel Shoring Erector	Saw Steel			\$52.08	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	7	\$83.19	\$99.47	\$122.25	\$99.47	\$122.25	\$122.25

Footnotes listed on page 34C

(Recognized Holidays and Subsistence Payment footnotes also listed on page 34C)

**DETERMINATION:** NC-23-31-1-2020-1A

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All Localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

CLASSIFICATION (Journey person)	Basic Hourly Rate	Employer Payments					Straight – Time		Daily 1 1/2X <sup>h</sup>	2X	Overtime Hourly Rate <sup>a</sup>		
		Health and Welfare	Pension	Vacation/ Holiday <sup>c</sup>	Training	Other Payments <sup>f</sup>	Hours <sup>g</sup>	Total Hourly Rate			Saturday <sup>b</sup> 1 1/2X <sup>i</sup>	2X	Sunday and Holiday <sup>k</sup>
Bridge Builder/Highway Carpenter	\$60.17	\$11.70	\$10.65	\$5.09	\$1.03	\$2.64	7	\$91.28	\$110.09	\$136.41	\$110.09	\$136.41	\$136.41

**DETERMINATION:** NC-23-31-1-2020-1B

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All Localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

CLASSIFICATION (Journey person)	Basic Hourly Rate	Health and Welfare	Pension	Employer Payments			Straight – Time		Daily 1 1/2X <sup>h</sup>	2X	Overtime Hourly Rate <sup>a</sup>		
				Vacation/ Holiday <sup>c</sup>	Training	Other Payments <sup>j</sup>	Hours <sup>g</sup>	Total Hourly Rate			Saturday <sup>b</sup> 1 1/2X <sup>i</sup>	2X	Sunday and Holiday <sup>k</sup>
<sup>c</sup> Area 1 Millwright	\$60.29	\$11.70	\$10.65	\$5.18	\$1.03	\$4.15	7	\$93.00	\$111.84	\$138.21	\$111.84	\$138.21	\$138.21
<sup>c</sup> Area 2 Millwright	\$56.31	\$11.70	\$10.65	\$5.18	\$1.03	\$4.15	7	\$89.02	\$106.62	\$131.25	\$106.62	\$131.25	\$131.25
<sup>c</sup> Area 3 <sup>d</sup> Millwright	\$56.31	\$11.70	\$10.65	\$5.18	\$1.03	\$4.15	7	\$89.02	\$106.62	\$131.25	\$106.62	\$131.25	\$131.25
<sup>c</sup> Area 4 <sup>d</sup> Millwright	\$54.77	\$11.70	\$10.65	\$5.18	\$1.03	\$4.15	7	\$87.48	\$104.59	\$128.55	\$104.59	\$128.55	\$128.55

Footnotes listed on page 34C

(Recognized Holidays and Subsistence Payment footnotes also listed on page 34C)

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: #MODULAR FURNITURE INSTALLER (CARPENTER)**

**DETERMINATION:** NC-23-31-15-2020-1

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All Localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

Classification (Journey person)	Employer Payments						Straight-Time		Overtime Hourly Rate		
	Basic Hourly Rate	Health and Welfare	Pension <sup>b</sup>	Vacation/ Holiday <sup>c</sup>	Training	Other Payments	Hours	Total Hourly Rate	Daily 1 1/2X	Saturday <sup>d</sup> 1 1/2X	Sunday/ Holiday 2X
<b>* AREA 1</b>											
Master Installer	\$36.43	\$10.55	\$7.80	\$4.33	\$0.25	\$0.42	8	\$59.78	\$77.995	\$77.995	\$96.21
Lead Installer	32.21	10.55	7.80	4.33	0.25	0.42	8	55.56	71.665	71.665	87.77
Installer	28.76	10.55	7.30	4.33	0.25	0.42	8	51.61	65.990	65.990	80.37
<b>* AREA 2</b>											
Master Installer	32.71	10.55	7.80	4.33	0.25	0.42	8	56.06	72.415	72.415	88.77
Lead Installer	29.08	10.55	7.80	4.33	0.25	0.42	8	52.43	66.970	66.970	81.51
Installer	26.11	10.55	7.30	4.33	0.25	0.42	8	48.96	62.015	62.015	75.07
<b>* AREA 3</b>											
Master Installer	31.38	10.55	7.80	4.33	0.25	0.42	8	54.73	70.420	70.420	86.11
Lead Installer	27.96	10.55	7.80	4.33	0.25	0.42	8	51.31	65.290	65.290	79.27
Installer	25.16	10.55	7.30	4.33	0.25	0.42	8	48.01	60.590	60.590	73.17

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

\* **AREA 1:** Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties.

**AREA 2:** Monterey, San Benito, and Santa Cruz Counties.

**AREA 3:** Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Mariposa, Mendocino, Merced, Modoc, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Sierra, Siskiyou, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

<sup>b</sup> Includes an amount for Annuity Trust Fund.

<sup>c</sup> Includes an amount for Work Fee.

<sup>d</sup> Rate applies for the first 10 hours only. All hours worked in excess of ten hours on Saturdays shall be paid at double time (2X).

**RATIO:** The ratio of employees shall be based on the increments of eight (8) employees. It is understood that the employee ratio shall apply on a company-wide basis. For every eight (8) employees, the employer shall employ one (1) Master Installer, two (2) Lead Installers, and five (5) Installers. For crew size of over eight (8) employees, please contact the Office of the Director – Research Unit at (415) 703-4774.

All drapery installation shall be performed by employees at the Installer level or above.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.



GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: #DRYWALL INSTALLER/LATHER (CARPENTER)**

**DETERMINATION:** NC-31-X-16-2020-1

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\*\*. The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo and Yuba counties.

CLASSIFICATION (Journey person)	Employer Payments						Straight-Time		Overtime Hourly Rate		
	Basic Hourly Rate	Health and Welfare	Pension	Vacation/ Holiday <sup>g</sup>	Training	Other Payments	Hours	Total Hourly Rate	Daily 1 1/2X	Saturday 1 1/2X	Sunday and Holiday
<b><sup>a</sup> Area 1</b>											
Drywall Installer/ Lather	\$52.65	\$11.70	<sup>f</sup> \$13.40	\$5.09	\$0.97	\$1.11	8	\$84.92	<sup>h</sup> \$111.245	<sup>h</sup> \$111.245	\$137.57
Stocker, Scrapper <sup>c</sup>	26.33	11.70	<sup>f</sup> \$5.91	5.04	-	0.10	8	49.08	<sup>h</sup> \$62.245	<sup>h</sup> \$62.245	75.41
Stocker, Scrapper	26.33	11.70	1.48	5.04	-	0.10	8	44.65	<sup>h</sup> \$57.815	<sup>h</sup> \$57.815	70.98
<b><sup>b</sup> Area 2</b>											
Drywall Installer/ Lather	46.77	11.70	<sup>f</sup> \$13.40	5.09	0.97	1.11	8	79.04	<sup>h</sup> \$102.425	<sup>h</sup> \$102.425	125.81
Stocker, Scrapper <sup>c</sup>	23.39	11.70	<sup>f</sup> \$5.91	5.04	-	0.10	8	46.14	<sup>h</sup> \$57.835	<sup>h</sup> \$57.835	69.53
Stocker, Scrapper	23.39	11.70	1.48	5.04	-	0.10	8	41.71	<sup>h</sup> \$53.405	<sup>h</sup> \$53.405	65.10
<b><sup>c</sup> Area 3</b>											
Drywall Installer/ Lather	47.27	11.70	<sup>f</sup> \$13.40	5.09	0.97	1.11	8	79.54	<sup>h</sup> \$103.175	<sup>h</sup> \$103.175	126.81
Stocker, Scrapper <sup>c</sup>	23.64	11.70	<sup>f</sup> \$5.91	5.04	-	0.10	8	46.39	<sup>h</sup> \$58.21	<sup>h</sup> \$58.21	70.03
Stocker, Scrapper	23.64	11.70	1.48	5.04	-	0.10	8	41.96	<sup>h</sup> \$53.78	<sup>h</sup> \$53.78	65.60
<b><sup>d</sup> Area 4</b>											
Drywall Installer/ Lather	45.92	11.70	<sup>f</sup> \$13.40	5.09	0.97	1.11	8	78.19	<sup>h</sup> \$101.150	<sup>h</sup> \$101.150	124.11
Stocker, Scrapper <sup>c</sup>	22.97	11.70	<sup>f</sup> \$5.91	5.04	-	0.10	8	45.72	<sup>h</sup> \$57.205	<sup>h</sup> \$57.205	68.69
Stocker, Scrapper	22.97	11.70	1.48	5.04	-	0.10	8	41.29	<sup>h</sup> \$52.775	<sup>h</sup> \$52.775	64.26

#Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> **Area 1** - Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano and Sonoma counties.

<sup>b</sup> **Area 2** - Monterey, San Benito, and Santa Cruz Counties.

<sup>c</sup> **Area 3** - El Dorado<sup>i</sup>, Placer<sup>i</sup>, Sacramento, San Joaquin, and Yolo Counties.

<sup>d</sup> **Area 4** - Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado<sup>i</sup>, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Mariposa, Mendocino, Merced, Modoc, Nevada, Placer<sup>i</sup>, Plumas, Shasta, Sierra, Siskiyou, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, and Yuba Counties.

<sup>e</sup> Employed by the same contractor for 2000 hours (consecutively or cumulatively).

<sup>f</sup> Includes an amount for Annuity Trust Fund.

<sup>g</sup> Includes an amount for Work Fees.

<sup>h</sup> Rate applies to the first 4 overtime hours Monday through Friday and the first 8 hours on Saturday. All other time is paid at the Sunday and Holiday overtime rate.

Saturdays may be worked at straight time if job is shut down during Monday through Friday due to inclement weather or major mechanical breakdown.

<sup>i</sup> Area 3 includes the portion of Placer County west of and including Highway 49 and the portion of El Dorado County west of and including Highway 49 and the territory inside the city limits of Placerville. Area 4 includes the portions of Placer and El Dorado Counties not covered in Area 3.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: # PILE DRIVER (CARPENTER)**

**DETERMINATION:** NC-23-31-11-2020-1

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

Classification (Journey person)	Employer Payments						Straight-Time		Overtime Hourly Rate		
	Basic Hourly Rate	Health and Welfare	Pension	Vacation/ Holiday	Training	Other Payments	Hours	Total Hourly Rate	Daily 1 1/2X	Saturday 1 1/2X	Sunday and Holiday
Pile Driver, Wharf, and Dock Builder	\$51.90 <sup>g</sup>	11.70	<sup>b</sup> 14.85	<sup>c</sup> 6.29	1.08	<sup>a</sup> 0.35	8	86.17	<sup>d</sup> 112.120	<sup>d</sup> 112.120	138.070
Diver (wet) up to 50 ft depth <sup>e, f</sup>	101.42	11.70	<sup>b</sup> 14.85	<sup>c</sup> 6.29	1.08	<sup>a</sup> 0.35	8	135.69	<sup>d</sup> 186.400	<sup>d</sup> 186.400	237.110
Diver's Tender <sup>e</sup>	56.88	11.70	<sup>b</sup> 14.85	<sup>c</sup> 6.29	1.08	<sup>a</sup> 0.35	8	91.15	<sup>d</sup> 119.590	<sup>d</sup> 119.590	148.030
Assistant Tender	51.90	11.70	<sup>b</sup> 14.85	<sup>c</sup> 6.29	1.08	<sup>a</sup> 0.35	8	86.17	<sup>d</sup> 112.120	<sup>d</sup> 112.120	138.070
Diver (stand-by)	57.88	11.70	<sup>b</sup> 14.85	<sup>c</sup> 6.29	1.08	<sup>a</sup> 0.35	8	92.15	<sup>d</sup> 121.090	<sup>d</sup> 121.090	150.030

**FOR "PILE DRIVER-BRIDGE BUILDER" - SEE NORTHERN CALIFORNIA CARPENTER PAGE 34.**

**PLEASE NOTE:** To obtain wage rate information for Saturation Diver, Manned Submersible, Manifold Operator/Life Support Technician, Remote Controlled/Operated Vehicle (RCV/ROV) Pilot/Technician, Navigator Surveyor, Bell Winch Operator & Diving Equipment Technician, please contact the Office of the Director - Research Unit at (415) 703-4774.

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at

<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> Includes Industry Promotion, Carpenters International Training Fund, Pile Drivers Employers Contract Administration, LMCC and Vacation/Holiday/Sick Leave Admin (VHSLA).

<sup>b</sup> Includes an amount per hour for Annuity Trust Fund. Pursuant to Labor Code Sections 1773.1 and 1773.8, the amount paid for this employer payment may vary resulting in a lower taxable basic hourly wage rate, but the total hourly rates for straight time and overtime may not be less than the general prevailing rate of per diem wages.

<sup>c</sup> Includes an amount per hour for work fees.

<sup>d</sup> Rate applies to the first 2 daily overtime hours and the first 8 hours worked on Saturdays. All other time is paid at the Sunday/Holiday overtime rate. For work associated with cast-in-place piles, drill shaft, Tubex piles, Tubex grout injection piles, geo piles, soil improvement piles, sand piles, augured cast in place piles, CISS and CIDH: Rate applies to all hours worked after 8 hours Monday-Friday and all hours worked on Saturday.

<sup>e</sup> Shall receive a minimum of 8 hours pay for any day or part thereof worked.

<sup>f</sup> For specific rates over 50 ft depth, contact the Office of the Director – Research Unit.

<sup>g</sup> On bridges, powerhouses and dams, men working from bosun's chairs or swinging scaffolds or suspended from rope, cable, safety belts, or any device used as a substitute for or in lieu thereof (excluding piledriving rigs) shall receive \$0.15 per hour above this rate.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <https://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <https://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1  
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: #ELEVATOR CONSTRUCTOR**

**DETERMINATION:** NC-62-X-1-2020-1

**ISSUE DATE:** February 22, 2020

**EXPIRATION DATE OF DETERMINATION:** December 31, 2020\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All Localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Inyo, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Mono, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.  
Portions<sup>a</sup> of Kern, San Bernardino and San Luis Obispo are detailed below.

Classification (Journey person)	Basic Hourly Rate	Employer Payments					Straight-Time		Overtime Hourly Rate		
		Health and Welfare	Pension <sup>e</sup>	Vacation/ Holiday	Training	Other Payments	Hours	Total Hourly Rate	Daily 1 1/2X <sup>d</sup>	Saturday 1 1/2X <sup>d</sup>	Sunday and Holiday
Mechanic	\$69.78	15.725	18.41	4.19	0.63	0.48	8	109.215	144.105	144.105	178.995 <sup>b</sup>
Mechanic (Employed in industry more than 5 years)	69.78	15.725	18.41	5.58	0.63	0.48	8	110.605	145.495	145.495	180.385 <sup>b</sup>
Helper <sup>c</sup>	48.85	15.725	18.41	2.93	0.63	0.48	8	87.025	111.450	111.450	135.875 <sup>b</sup>
Helper (Employed in industry more than 5 years)	48.85	15.725	18.41	3.91	0.63	0.48	8	88.005	112.430	112.430	136.855 <sup>b</sup>

#Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @  
<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> Applies to that portion of these counties north of the Tehachapi Line. For more information contact the Office of the Director - Research Unit.

<sup>b</sup> For paid holidays recognized in the collective bargaining agreement employees are paid for 8 hours at straight time in addition to the Holiday rate for all hours worked.

<sup>c</sup> Ratio: The total number of Helpers employed shall not exceed the number of Mechanics on any one job. For more information on the use of Helpers contact the Office of the Director - Research Unit.

<sup>d</sup> For Contract Service work only. All other overtime is paid at the Sunday/Holiday rate.

<sup>e</sup> Includes an amount for Annuity Trust Fund.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: # OPERATING ENGINEER (HEAVY AND HIGHWAY WORK)**

**DETERMINATION:** NC-23-63-1-2020-2

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

Classification (Journey person)	Employer Payments							Straight-Time		Overtime Hourly Rate			
	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday <sup>e</sup>	Training	Other Payments	Hours <sup>f</sup>	Total Hourly Rate		Daily/ Saturday <sup>d</sup> 1 1/2X	Sunday and Holiday 2X		
Classification Group <sup>a</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>						Area 1 <sup>b</sup>	Area 2 <sup>c</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>
Group 1	\$51.42	\$53.42	\$13.88	\$10.78	\$4.77	\$1.07	8	\$83.05	\$85.05	\$108.76	\$111.76	\$134.47	\$138.47
Group 2	\$49.89	\$51.89	\$13.88	\$10.78	\$4.77	\$1.07	8	\$81.52	\$83.52	\$106.47	\$109.47	\$131.41	\$135.41
Group 3	\$48.41	\$50.41	\$13.88	\$10.78	\$4.77	\$1.07	8	\$80.04	\$82.04	\$104.25	\$107.25	\$128.45	\$132.45
Group 4	\$47.03	\$49.03	\$13.88	\$10.78	\$4.77	\$1.07	8	\$78.66	\$80.66	\$102.18	\$105.18	\$125.69	\$129.69
Group 5	\$45.76	\$47.76	\$13.88	\$10.78	\$4.77	\$1.07	8	\$77.39	\$79.39	\$100.27	\$103.27	\$123.15	\$127.15
Group 6	\$44.44	\$46.44	\$13.88	\$10.78	\$4.77	\$1.07	8	\$76.07	\$78.07	\$98.29	\$101.29	\$120.51	\$124.51
Group 7	\$43.30	\$45.30	\$13.88	\$10.78	\$4.77	\$1.07	8	\$74.93	\$76.93	\$96.58	\$99.58	\$118.23	\$122.23
Group 8	\$42.16	\$44.16	\$13.88	\$10.78	\$4.77	\$1.07	8	\$73.79	\$75.79	\$94.87	\$97.87	\$115.95	\$119.95
Group 8-A	\$39.95	\$41.95	\$13.88	\$10.78	\$4.77	\$1.07	8	\$71.58	\$73.58	\$91.56	\$94.56	\$111.53	\$115.53
<b>ALL CRANES AND ATTACHMENTS:</b>													
Group 1	\$53.05	\$55.05	\$13.88	\$10.78	\$4.77	\$1.07	8	\$84.68	\$86.68	\$111.21	\$114.21	\$137.73	\$141.73
Truck Crane Assistant to Engineer	\$46.08	\$48.08	\$13.88	\$10.78	\$4.77	\$1.07	8	\$77.71	\$79.71	\$100.75	\$103.75	\$123.79	\$127.79
Assistant to Engineer	\$43.79	\$45.79	\$13.88	\$10.78	\$4.77	\$1.07	8	\$75.42	\$77.42	\$97.32	\$100.32	\$119.21	\$123.21
Group 1-A	\$52.30	\$54.30	\$13.88	\$10.78	\$4.77	\$1.07	8	\$83.93	\$85.93	\$110.08	\$113.08	\$136.23	\$140.23
Truck Crane Assistant to Engineer	\$45.33	\$47.33	\$13.88	\$10.78	\$4.77	\$1.07	8	\$76.96	\$78.96	\$99.63	\$102.63	\$122.29	\$126.29
Assistant to Engineer	\$43.04	\$45.04	\$13.88	\$10.78	\$4.77	\$1.07	8	\$74.67	\$76.67	\$96.19	\$99.19	\$117.71	\$121.71
Group 2-A	\$50.54	\$52.54	\$13.88	\$10.78	\$4.77	\$1.07	8	\$82.17	\$84.17	\$107.44	\$110.44	\$132.71	\$136.71
Truck Crane Assistant to Engineer	\$45.07	\$47.07	\$13.88	\$10.78	\$4.77	\$1.07	8	\$76.70	\$78.70	\$99.24	\$102.24	\$121.77	\$125.77
Assistant to Engineer	\$42.83	\$44.83	\$13.88	\$10.78	\$4.77	\$1.07	8	\$74.46	\$76.46	\$95.88	\$98.88	\$117.29	\$121.29
Group 3-A	\$48.80	\$50.80	\$13.88	\$10.78	\$4.77	\$1.07	8	\$80.43	\$82.43	\$104.83	\$107.83	\$129.23	\$133.23
Truck Crane Assistant to Engineer	\$44.83	\$46.83	\$13.88	\$10.78	\$4.77	\$1.07	8	\$76.46	\$78.46	\$98.88	\$101.88	\$121.29	\$125.29
Hydraulic	\$44.44	\$46.44	\$13.88	\$10.78	\$4.77	\$1.07	8	\$76.07	\$78.07	\$98.29	\$101.29	\$120.51	\$124.51
Assistant to Engineer	\$42.55	\$44.55	\$13.88	\$10.78	\$4.77	\$1.07	8	\$74.18	\$76.18	\$95.46	\$98.46	\$116.73	\$120.73
Group 4-A	\$45.76	\$47.76	\$13.88	\$10.78	\$4.77	\$1.07	8	\$77.39	\$79.39	\$100.27	\$103.27	\$123.15	\$127.15

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> For classifications within each group, see pages 39B-40.

<sup>b</sup> **AREA 1** - Alameda, Butte, Contra Costa, Kings, Marin, Merced, Napa, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Solano, Stanislaus, Sutter, Yolo and Yuba counties; and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity counties.

<sup>c</sup> **AREA 2** - Modoc, and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity counties. (Portions of counties falling in each area detailed on page 41).

<sup>d</sup> Saturday in the same work week may be worked at straight-time if a job is shut down during the normal work week due to inclement weather.

<sup>e</sup> Includes an amount for supplemental dues.

<sup>f</sup> When three shifts are employed for five (5) or more consecutive days, seven and one-half (7 1/2) consecutive hours (exclusive of meal period), shall constitute a day of work, for which eight (8) times the straight time hourly rate shall be paid at the non-shift wage rate for the second shift. The third shift shall be seven (7) hours of work for eight (8) hours of pay at the non-shift wage rate.

**NOTE:** For Special Single and Second Shift rates, please see page 39A.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

CLASSIFICATIONS

**GROUP 1**

Drill Equipment, over 200,000 lbs  
Operator of Helicopter (when used in erection work)  
Hydraulic Excavator 7 cu yds and over  
Power Shovels, over 7 cu yds

**GROUP 2**

Highline Cableway  
Hydraulic Excavator 3 1/2 cu yds up to 7 cu yds  
Licensed Construction Work Boat Operator, On Site  
Microtunneling Machine  
Power Blade Operator (finish)  
Power Shovels, (over 1 cu yd and up to and including 7 cu yds m.r.c.)

**GROUP 3**

Asphalt Milling Machine  
Cable Backhoe  
Combination Backhoe and Loader over ¾ cu yds  
Continuous Flight Tie Back Machine  
Crane Mounted Continuous Flight Tie Back Machine, tonnage to apply  
Crane Mounted Drill Attachments, Tonnage to apply  
Dozer, Slope Board  
Drill Equipment, over 100,000 lbs up to and including 200,000 lbs  
Gradall  
Hydraulic Excavator up to 3 1/2 cu yds  
Loader 4 cu yds and over  
Long Reach Excavator  
Multiple Engine Scrapers (when used as push pull)  
Power Shovels, up to and including 1 cu yd  
Pre-Stress Wire Wrapping machine  
Side Boom Cat, 572 or larger  
Track Loader 4 cu yds and over  
Wheel Excavator (up to and including 750 cu yds per hour)

**GROUP 4**

Asphalt Plant Engineer/Boxman  
Chicago Boom  
Combination Backhoe and Loader up to and including ¾ cu yds  
Concrete Batch Plants (wet or dry)  
Dozer and/or Push Cat  
Drill Equipment, over 50,000 lbs up to and including 100,000 lbs  
Pull-Type Elevating Loader  
Gradesetter, Grade Checker (GPS, mechanical or otherwise)  
Grooving and Grinding Machine  
Heading Shield Operator  
Heavy Duty Drilling Equipment, Hughes, LDH, Watson 3000 or similar  
Heavy Duty Repairman and/or Welder  
Lime Spreader  
Loader under 4 cu yds  
Lubrication and Service Engineer (mobile and grease rack)  
Mechanical Finishers or Spreader Machine (asphalt, Barber-Greene and similar)  
Miller Formless M-9000 Slope Paver or similar  
Portable Crushing and Screening plants  
Power Blade Support  
Roller Operator, Asphalt  
Rubber-Tired Scraper, Self-Loading (paddle-wheels, etc)  
Rubber-Tired Earthmoving Equipment (Scrapers)  
Slip Form Paver (concrete)  
Small Tractor with Drag  
Soil Stabilizer (P&H or equal)  
Spider Plow and Spider Puller  
Timber Skidder  
Track Loader up to 4 yards  
Tractor Drawn Scraper  
Tractor, Compressor Drill Combination  
Tubex Pile Rig  
Unlicensed Construction Work Boat Operator, On Site  
Welder  
Woods-Mixer (and other similar Pugmill equipment)

**GROUP 5**

Cast-In Place Pipe Laying Machine  
Combination Slusher and Motor Operator  
Concrete Conveyor or Concrete Pump, Truck or Equipment Mounted  
Concrete Conveyor, Building Site  
Concrete Pump or Pumpcrete Guns  
Drilling Equipment, Watson 2000, Texoma 700 or similar  
Drilling and Boring Machinery, Horizontal (not to apply to waterlines, wagon drills or jackhammers)  
Concrete Mixers/all  
Man and/or Material Hoist  
Mechanical Finishers (concrete) (Clary, Johnson, Bidwell Bridge Deck or similar types)  
Mechanical Burn, Curb and/or Curb and Gutter Machine, Concrete or Asphalt  
Mine or Shaft Hoist  
Portable Crushers  
Power Jumbo Operator (setting slip-forms, etc., in tunnels)  
Screedman (automatic or manual)  
Self Propelled Compactor with Dozer  
Tractor with boom, D6 or smaller  
Trenching Machine, maximum digging capacity over 5 ft. depth  
Vermeer T-600B Rock Cutter or similar

**GROUP 6**

Armor-Coater (or similar)  
Ballast Jack Tamper  
Boom-Type Backfilling Machine  
Asst. Plant Engineer  
Bridge and/or Gantry Crane  
Chemical Grouting Machine, truck mounted  
Chip Spreading Machine Operator  
Concrete Barrier Moving Machine  
Concrete Saws (self-propelled unit on streets, highways, airports, and canals)  
Deck Engineer  
Drill Doctor  
Drill Equipment, over 25,000 lbs up to and including 50,000 lbs  
Drilling Equipment Texoma 600, Hughes 200 series or similar up to and including 30 ft. m.r.c.  
Helicopter Radioman  
Hydro-Hammer or similar  
Line Master  
Skidsteer Loader, Bobcat larger than 743 series or similar (with attachments)  
Locomotive  
Rotating Extendable Forklift, Lull Hi-Lift or similar  
Assistant to Engineer, Truck Mounted Equipment  
Pavement Breaker, Truck Mounted, with compressor combination  
Paving Fabric Installation and/or Laying Machine  
Pipe Bending Machine (pipelines only)  
Pipe Wrapping Machine (Tractor propelled and supported)  
Screedman, (except asphaltic concrete paving)  
Self-Loading Chipper  
Self Propelled Pipeline Wrapping Machine  
Tractor

**GROUP 7**

Ballast Regulator  
Cary Lift or similar  
Combination Slurry Mixer and/or Cleaner  
Coolant/Slurry Tanker Operator (hooked to Grooving/Grinding Machine)  
Drilling Equipment, 20 ft and under m.r.c.  
Drill Equipment, over 1,000 lbs up to and including 25,000 lbs  
Fireman Hot Plant

Grouting Machine Operator  
Highline Cableway Signalman  
Stationary Belt Loader (Kolman or similar)  
Lift Slab Machine (Vagtborg and similar types)  
Maginnes Internal Full Slab Vibrator  
Material Hoist (1 Drum)  
Mechanical Trench Shield  
Partsman (heavy duty repair shop parts room)  
Pavement Breaker with or without Compressor Combination  
Pipe Cleaning Machine (tractor propelled and supported)  
Post Driver  
Roller (except Asphalt), Chip Seal  
Self Propelled Automatically Applied Concrete Curing Machine (on streets, highways, airports and canals)  
Self Propelled Compactor (without dozer)  
Signalman  
Slip-Form Pumps (lifting device for concrete forms)  
Super Sucker Vacuum Truck  
Tie Spacer  
Trenching Machine (maximum digging capacity up to and including 5 ft depth)  
Truck Type Loader

**GROUP 8**

Bit Sharpener  
Boiler Tender  
Box Operator  
Brakeman  
Combination Mixer and Compressor (shotcrete/gunite)  
Compressor Operator  
Deckhand  
Fireman  
Generators  
Gunitite/Shotcrete Equipment Operator  
Heavy Duty Repairman Helper  
Hydraulic Monitor  
Ken Seal Machine (or similar)  
Mast Type Forklift  
Mixermobile  
Assistant to Engineer  
Pump Operator  
Refrigerator Plant  
Reservoir-Debris Tug (Self-Propelled Floating)  
Ross Carrier (Construction site)  
Rotomist Operator  
Self Propelled Tape Machine  
Shuttlecar  
Self Propelled Power Sweeper Operator (Includes Vacuum Sweeper)  
Slusher Operator  
Surface Heater  
Switchman  
Tar Pot Fireman  
Tugger Hoist, Single Drum  
Vacuum Cooling Plant  
Welding Machine (powered other than by electricity)

**GROUP 8-A**

Articulated Dump Truck Operator  
Elevator Operator  
Mini Excavator under 25 H.P. (Backhoe-Trencher)  
Skidsteer Loader, Bobcat 743 series or  
Smaller and similar (without attachments)

**GROUP 2-A**

Clamshells and Draglines over 1 cu yds up to and  
including 7 cu yds  
Cranes over 45 tons up to and including 100 tons  
Derrick Barge 100 tons and under  
Mobile Self-Erecting Tower Crane (Potain) over 3 stories  
Self Propelled Boom Type Lifting Device over 45 tons

**GROUP 4-A**

Boom Truck or dual-purpose A-Frame Truck,  
Non-Rotating over 15 tons.  
Truck Mounted Rotating Telescopic Boom  
Type Lifting Device, Manitex or similar  
(Boom Truck -over 15 tons)  
Truck-Mounted Rotating Telescopic Boom Type  
Lifting Device, Manitex or Similar (Boom Truck),  
under 15 tons

**ALL CRANES AND ATTACHMENTS:**

**GROUP 1**

Cranes over 350 tons  
Derrick over 250 tons  
Self Propelled Boom Type Lifting Device over 250 tons

**GROUP 1-A**

Clamshells and Draglines over 7 cu yds  
Cranes over 100 tons  
Derrick, over 100 tons  
Derrick Barge Pedestal mounted over 100 tons  
Self Propelled Boom Type Lifting Device Over 100 tons  
Tower Cranes

**GROUP 3-A**

Clamshells and Draglines up to and including 1 cu yd  
Cranes 45 tons and under  
Mobile Self-Erecting Tower Crane (Potain), 3 stories  
and under  
Self Propelled Boom Type Lifting Device 45 tons  
and under

## DESCRIPTION FOR AREAS 1 AND 2:

Area 1 is all of Northern California within the following Township, State and/or county Boundaries:

Commencing in the Pacific Ocean on the extension of the Southerly line of Township 19S, of the Mount Diablo Base and Meridian, Thence Easterly along the Southerly line of Township 19S, to the Northwest corner of Township 20S, Range 6E, Thence Southerly to the Southwest corner of Township 20S, Range 6E, Thence Easterly to the Northwest corner of Township 21S, Range 7E Thence Southerly to the Southwest corner of Township 21S, Range 7E Thence Easterly to the Northwest corner of Township 22S, Range 9E, Thence Southerly to the Southwest corner of Township 22S, Range 9E, Thence Easterly to the Northwest corner of Township 23S, Range 10E, Thence Southerly to the Southwest corner of Township 24S, Range 10E, Thence Easterly to the Southwest corner of Township 24S, Range 31E, Thence Northerly to the Northeast corner of Township 20S, Range 31E Thence Westerly to the Southeast corner of Township 19S, Range 29E, Thence Northerly to the Northeast corner of Township 17S, Range 29E, Thence Westerly to the Southeast corner of Township 16S, Range 28E, Thence Northerly to the Northeast corner of Township 13S, Range 28E, Thence Westerly to the Southeast corner Township 12S, Range 27E, Thence Northerly to the Northeast corner of Township 12S, Range 27E, Thence Westerly to the Southeast corner of Township 11S, Range 26E, Thence Northerly to the Northeast corner of Township 11S, Range 26E, Thence Westerly to the Southeast corner of Township 10S, Range 25E, Thence Northerly to the Northeast corner of Township 9S, Range 25E, Thence Westerly to the Southeast corner of Township 8S, Range 24E, Thence Northerly to the Northeast corner of Township 8S, Range 24E, Thence Westerly to the Southeast corner of Township 7S, Range 23E, Thence Northerly to the Northeast corner of Township 6S, Range 23E, Thence Westerly to the Southeast corner of Township 5S, Range 20E, Thence Northerly to the Northeast corner of Township 5S, Range 20E, Thence Westerly to the Southeast corner of Township 4S, Range 19E, Thence Northerly to the Northeast corner of Township 1S, Range 19E, Thence Westerly to the Southeast corner of Township 1N, Range 18E, Thence Northerly to the Northeast corner of Township 3N, Range 18E, Thence Westerly to the Southeast corner of Township 4N, Range 17E, Thence Northerly to the Northeast corner of Township 4N, Range 17E, Thence Westerly to the Southeast corner of Township 5N, Range 15E, Thence Northerly to the Northeast corner of Township 5N, Range 15E, Thence Westerly to the Southeast corner of Township 6N, Range 14E, Thence Northerly to the Northeast corner of Township 10N, Range 14E, Thence Easterly along the Southern line of Township 11N, to the California / Nevada State Border, Thence Northerly along the California / Nevada State Border to the Northerly line of Township 17N, Thence Westerly to the Southeast corner of Township 18N, Range 10E, Thence Northerly to the Northeast corner of Township 20N, Range 10E, Thence Westerly to the Southeast corner of Township 21N, Range 9E, Thence Northerly to the Northeast corner of Township 21N, Range 9E, Thence Westerly to the Southeast corner of Township 22N, Range 8E, Thence Northerly to the Northeast corner of Township 22N, Range 8E, Thence Westerly to the Northwest corner of Township 22N, Range 8E, Thence Northerly to the Southwest corner of Township 27N, Range 8E, Thence Easterly to the Southeast corner of Township 27N, Range 8E, Thence Northerly to the Northeast corner of Township 28N, Range 8E, Thence Westerly to the Southeast corner of Township 29N, Range 6E, Thence Northerly to the Northeast corner of Township 32N, Range 6E, Thence Westerly to the Northwest corner of Township 32 N, Range 6E, Thence Northerly to the Northeast corner of Township 35N, Range 5E, Thence Westerly to the Southeast corner of Township 36N, Range 3E, Thence Northerly to the Northeast corner of township 36N, Range 3E, Thence Westerly to the Southeast corner of Township 37N, Range 1W, Thence Northerly to the Northeast corner of Township 38N, Range 1W, Thence Westerly to the Southeast corner of Township 39N, Range 2W, Thence Northerly to the Northeast corner of Township 40N, Range 2W, Thence Westerly to the Southeast corner of Township 41N, Range 4W, Thence Northerly to the Northeast corner of Township 42N, Range 4W, Thence Westerly to the Southeast corner of Township 43N, Range 5W, Thence Northerly to the California / Oregon State Border,

Thence Westerly along the California / Oregon State Border to the Westerly Boundary of Township Range 8W, Thence Southerly to the Southwest corner of Township 43N, Range 8W, Thence Easterly to the Southeast corner of Township 43N, Range 8W, Thence Southerly to the Southwest corner of Township 42N, Range 7W, Thence Easterly to the Southeast corner of Township 42N, Range 7W, Thence Southerly to the Southwest corner of Township 41N, Range 6W, Thence Easterly to the Northwest corner of Township 40N, Range 5W, Thence Southerly to the Southwest corner of Township 38N, Range 5W, Thence Westerly to the Northwest corner of Township 37N, Range 6W, Thence Southerly to the Southwest corner of Township 35N, Range 6W, Thence Westerly to the Northwest corner of Township 34N, Range 10W, Thence Southerly to the Southwest corner of Township 31N, Range 10W, Thence Easterly to the Northwest corner of Township 30N, Range 9W, Thence Southerly to the Southwest corner of Township 30N, Range 9W, Thence Easterly to the Northwest corner of Township 29N, Range 8W, Thence Southerly to the Southwest corner of Township 23N, Range 8W, Thence Easterly to the Northwest corner of Township 22N, Range 6W, Thence Southerly to the Southwest corner of Township 16N, Range 6W, Thence Westerly to the Southeast corner of Township 16N, Range 9W, Thence Northerly to the Northeast corner of Township 16N, Range 9W, Thence Westerly to the Southeast. corner of Township 17N, Range 12W, Thence Northerly to the Northeast corner of Township 18N, Range 12W, Thence Westerly to the Northwest corner of Township 18N, Range 15W, Thence Southerly to the Southwest corner of Township 14N, Range 15W, Thence Easterly to the Northwest corner of Township 13N, Range 14W, Thence Southerly to the Southwest corner of Township 13N, Range 14W, Thence Easterly to the Northwest corner of Township 12N, Range 13W, Thence Southerly to the Southwest corner of Township 12N, Range 13W, Thence Easterly to the Northwest corner of Township 11N, Range 12W, Thence Southerly into the Pacific Ocean and Commencing in the Pacific Ocean on the extension of the Humboldt Base Line, Thence Easterly to the Northwest corner of Township 1S, Range 2E, Thence Southerly to the Southwest corner of Township 2S, Range 2E, Thence Easterly to the Northwest corner of Township 3S, Range 3E, Thence Southerly to the Southwest corner of Township 5S, Range 3E, Thence Easterly to the Southeast corner of Township 5S, Range 4E, Thence Northerly to the Northeast corner of Township 4S, Range 4E, Thence Westerly to the Southeast corner of Township 3S, Range 3E, Thence Northerly to the Northeast corner of Township 5N, Range 3E, Thence Easterly to the Southeast corner of Township 6N, Range 5E, Thence Northerly to the Northeast corner of Township 7N, Range 5E, Thence Westerly to the Southeast corner of Township 8N, Range 3E, Thence Northerly to the Northeast corner of Township 9N, Range 3E, Thence Westerly to the Southeast corner of Township 10N, Range 1E, Thence Northerly to the Northeast corner of Township 13N, Range 1E, Thence Westerly into the Pacific Ocean, excluding that portion of Northern California contained within the following lines: Commencing at the Southwest corner of Township 12N, Range 11E, of the Mount Diablo Base and Meridian, Thence Easterly to the Southeast corner of Township 12N, Range 16E, Thence Northerly to the Northeast corner of Township 12N, Range 16E, Thence Westerly to the Southeast corner of Township 13N, Range 15E, Thence Northerly to the Northeast corner of Township 13N, Range 15E, Thence Westerly to the Southeast corner of Township 14N, Range 14E, Thence Northerly to the Northeast corner of Township 16N, Range 14E, Thence Westerly to the Northwest corner of Township 16N, Range 12E, Thence Southerly to the Southwest corner of Township 16N, Range 12E, Thence Westerly to the Northwest corner of Township 15N, Range 11E, Thence Southerly to the point of beginning at the Southwest corner of Township 12N, Range 11E,

Area 2 shall be all areas not part of Area 1 described above.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: # OPERATING ENGINEER (HEAVY AND HIGHWAY WORK)  
(SPECIAL SINGLE AND SECOND SHIFT)**

**DETERMINATION:** NC-23-63-1-2020-2

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

Classification (Journeyperson)	Employer Payments							Hours	Straight-Time		Overtime Hourly Rate			
	Basic Hourly Rate		Health and Welfare	Pension	Vacation and Holiday <sup>a</sup>	Training	Other Payments		Total Hourly Rate		Daily/ Saturday <sup>d</sup> 1 1/2X		Sunday and Holiday 2X	
Classification Group <sup>a</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>							Area 1 <sup>b</sup>	Area 2 <sup>c</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>
Group 1	\$56.75	\$58.75	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$88.38	\$90.38	\$116.76	\$119.76	\$145.13	\$149.13
Group 2	\$55.02	\$57.02	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$86.65	\$88.65	\$114.16	\$117.16	\$141.67	\$145.67
Group 3	\$53.36	\$55.36	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$84.99	\$86.99	\$111.67	\$114.67	\$138.35	\$142.35
Group 4	\$51.80	\$53.80	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$83.43	\$85.43	\$109.33	\$112.33	\$135.23	\$139.23
Group 5	\$50.38	\$52.38	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$82.01	\$84.01	\$107.20	\$110.20	\$132.39	\$136.39
Group 6	\$48.88	\$50.88	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$80.51	\$82.51	\$104.95	\$107.95	\$129.39	\$133.39
Group 7	\$47.60	\$49.60	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$79.23	\$81.23	\$103.03	\$106.03	\$126.83	\$130.83
Group 8	\$46.33	\$48.33	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$77.96	\$79.96	\$101.13	\$104.13	\$124.29	\$128.29
Group 8-A	\$43.82	\$45.82	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$75.45	\$77.45	\$97.36	\$100.36	\$119.27	\$123.27
<b>ALL CRANES AND ATTACHMENTS:</b>														
Group 1	\$58.48	\$60.48	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$90.11	\$92.11	\$119.35	\$122.35	\$148.59	\$152.59
Truck Crane Assistant to Engineer	\$50.65	\$52.65	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$82.28	\$84.28	\$107.61	\$110.61	\$132.93	\$136.93
Assistant to Engineer	\$48.06	\$50.06	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$79.69	\$81.69	\$103.72	\$106.72	\$127.75	\$131.75
Group 1-A	\$57.73	\$59.73	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$89.36	\$91.36	\$118.23	\$121.23	\$147.09	\$151.09
Truck Crane Assistant to Engineer	\$49.90	\$51.90	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$81.53	\$83.53	\$106.48	\$109.48	\$131.43	\$135.43
Assistant to Engineer	\$47.31	\$49.31	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$78.94	\$80.94	\$102.60	\$105.60	\$126.25	\$130.25
Group 2-A	\$55.74	\$57.74	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$87.37	\$89.37	\$115.24	\$118.24	\$143.11	\$147.11
Truck Crane Assistant to Engineer	\$49.61	\$51.61	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$81.24	\$83.24	\$106.05	\$109.05	\$130.85	\$134.85
Assistant to Engineer	\$47.08	\$49.08	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$78.71	\$80.71	\$102.25	\$105.25	\$125.79	\$129.79
Group 3-A	\$53.78	\$55.78	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$85.41	\$87.41	\$112.30	\$115.30	\$139.19	\$143.19
Truck Crane Assistant to Engineer	\$49.34	\$51.34	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$80.97	\$82.97	\$105.64	\$108.64	\$130.31	\$134.31
Hydraulic	\$48.88	\$50.88	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$80.51	\$82.51	\$104.95	\$107.95	\$129.39	\$133.39
Assistant to Engineer	\$46.77	\$48.77	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$78.40	\$80.40	\$101.79	\$104.79	\$125.17	\$129.17
Group 4-A	\$50.38	\$52.38	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$82.01	\$84.01	\$107.20	\$110.20	\$132.39	\$136.39

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> For classifications within each group, see pages 39B-40.

<sup>b</sup> **AREA 1** - Alameda, Butte, Contra Costa, Kings, Marin, Merced, Napa, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Solano, Stanislaus, Sutter, Yolo and Yuba counties; and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity counties.

<sup>c</sup> **AREA 2** - Modoc, and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity counties. (Portions of counties falling in each area detailed on page 41).

<sup>d</sup> Saturday in the same work week may be worked at straight-time if a job is shut down during the normal work week due to inclement weather.

<sup>e</sup> Includes an amount for supplemental dues.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.



GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: # OPERATING ENGINEER (BUILDING CONSTRUCTION)<sup>9</sup>**

**DETERMINATION:** NC-23-63-1-2020-2A

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Joaquin, Santa Cruz, Shasta, Sierra, Siskiyou, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

Classification (Journey person)	Employer Payments							Straight-Time		Overtime Hourly Rate			
	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday <sup>9</sup>	Training	Other Payments	Hours <sup>f</sup>	Total Hourly Rate		Daily/ Saturday <sup>d</sup> 1 1/2X	Sunday and Holiday 2X		
Classification Group <sup>a</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>						Area 1 <sup>b</sup>	Area 2 <sup>c</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>
Group 1	\$50.00	\$52.00	\$13.88	\$10.78	\$4.77	\$1.07	8	\$81.63	\$83.63	\$106.63	\$109.63	\$131.63	\$135.63
Group 2	\$48.55	\$50.55	\$13.88	\$10.78	\$4.77	\$1.07	8	\$80.18	\$82.18	\$104.46	\$107.46	\$128.73	\$132.73
Group 3	\$47.15	\$49.15	\$13.88	\$10.78	\$4.77	\$1.07	8	\$78.78	\$80.78	\$102.36	\$105.36	\$125.93	\$129.93
Group 4	\$45.82	\$47.82	\$13.88	\$10.78	\$4.77	\$1.07	8	\$77.45	\$79.45	\$100.36	\$103.36	\$123.27	\$127.27
Group 5	\$44.61	\$46.61	\$13.88	\$10.78	\$4.77	\$1.07	8	\$76.24	\$78.24	\$98.55	\$101.55	\$120.85	\$124.85
Group 6	\$43.34	\$45.34	\$13.88	\$10.78	\$4.77	\$1.07	8	\$74.97	\$76.97	\$96.64	\$99.64	\$118.31	\$122.31
Group 7	\$42.25	\$44.25	\$13.88	\$10.78	\$4.77	\$1.07	8	\$73.88	\$75.88	\$95.01	\$98.01	\$116.13	\$120.13
Group 8	\$41.17	\$43.17	\$13.88	\$10.78	\$4.77	\$1.07	8	\$72.80	\$74.80	\$93.39	\$96.39	\$113.97	\$117.97
Group 8-A	\$39.05	\$41.05	\$13.88	\$10.78	\$4.77	\$1.07	8	\$70.68	\$72.68	\$90.21	\$93.21	\$109.73	\$113.73
<b>ALL CRANES AND ATTACHMENTS:</b>													
Group 1	\$51.60	\$53.60	\$13.88	\$10.78	\$4.77	\$1.07	8	\$83.23	\$85.23	\$109.03	\$112.03	\$134.83	\$138.83
Truck Crane Assistant to Engineer	\$44.94	\$46.94	\$13.88	\$10.78	\$4.77	\$1.07	8	\$76.57	\$78.57	\$99.04	\$102.04	\$121.51	\$125.51
Assistant to Engineer	\$42.77	\$44.77	\$13.88	\$10.78	\$4.77	\$1.07	8	\$74.40	\$76.40	\$95.79	\$98.79	\$117.17	\$121.17
Group 1-A	\$50.85	\$52.85	\$13.88	\$10.78	\$4.77	\$1.07	8	\$82.48	\$84.48	\$107.91	\$110.91	\$133.33	\$137.33
Truck Crane Assistant to Engineer	\$44.19	\$46.19	\$13.88	\$10.78	\$4.77	\$1.07	8	\$75.82	\$77.82	\$97.92	\$100.92	\$120.01	\$124.01
Assistant to Engineer	\$42.02	\$44.02	\$13.88	\$10.78	\$4.77	\$1.07	8	\$73.65	\$75.65	\$94.66	\$97.66	\$115.67	\$119.67
Group 2-A	\$49.16	\$51.16	\$13.88	\$10.78	\$4.77	\$1.07	8	\$80.79	\$82.79	\$105.37	\$108.37	\$129.95	\$133.95
Truck Crane Assistant to Engineer	\$43.95	\$45.95	\$13.88	\$10.78	\$4.77	\$1.07	8	\$75.58	\$77.58	\$97.56	\$100.56	\$119.53	\$123.53
Assistant to Engineer	\$41.80	\$43.80	\$13.88	\$10.78	\$4.77	\$1.07	8	\$73.43	\$75.43	\$94.33	\$97.33	\$115.23	\$119.23
Group 3-A	\$47.52	\$49.52	\$13.88	\$10.78	\$4.77	\$1.07	8	\$79.15	\$81.15	\$102.91	\$105.91	\$126.67	\$130.67
Truck Crane Assistant to Engineer	\$43.71	\$45.71	\$13.88	\$10.78	\$4.77	\$1.07	8	\$75.34	\$77.34	\$97.20	\$100.20	\$119.05	\$123.05
Hydraulic	\$43.34	\$45.34	\$13.88	\$10.78	\$4.77	\$1.07	8	\$74.97	\$76.97	\$96.64	\$99.64	\$118.31	\$122.31
Assistant to Engineer	\$41.55	\$43.55	\$13.88	\$10.78	\$4.77	\$1.07	8	\$73.18	\$75.18	\$93.96	\$96.96	\$114.73	\$118.73
Group 4-A	\$44.61	\$46.61	\$13.88	\$10.78	\$4.77	\$1.07	8	\$76.24	\$78.24	\$98.55	\$101.55	\$120.85	\$124.85

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> For classifications within each group, see pages 39B-40.

<sup>b</sup> **AREA 1** - Butte, Kings, Merced, Napa, Sacramento, San Benito, San Joaquin, Santa Cruz, Stanislaus, Sutter, Yolo, and Yuba counties; and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tuolumne and Trinity counties.

<sup>c</sup> **AREA 2** - Modoc, and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity counties. (Portions of counties falling in each area detailed on page 41).

<sup>d</sup> Saturday in the same work week may be worked at straight-time if a job is shut down during the normal work week due to inclement weather.

<sup>e</sup> Includes an amount for supplemental dues.

<sup>f</sup> When three shifts are employed for five (5) or more consecutive days, seven and one-half (7 1/2) consecutive hours (exclusive of meal period), shall constitute a day of work, for which eight (8) times the straight time hourly rate shall be paid at the non-shift wage rate for the second shift. The third shift shall be seven (7) hours of work for eight (8) hours of pay at the non-shift wage rate.

<sup>9</sup> For total base bid project value of less than \$3,000,000 only. The Operating Engineer (Heavy and Highway Work) determination is applicable for all work \$3,000,000 and above. Where there is a published or advertised estimate of the construction costs of a project, such estimate shall determine the total base bid project value, for the purposes of the three million dollars (\$3,000,000) threshold.

**NOTE:** For Special Single and Second Shift rates, please see page 40C.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: # OPERATING ENGINEER (BUILDING CONSTRUCTION)<sup>f</sup>**  
**(SPECIAL SINGLE AND SECOND SHIFT)**

**DETERMINATION:** NC-23-63-1-2020-2A

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Joaquin, Santa Cruz, Shasta, Sierra, Siskiyou, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

Classification (Journey person)	Employer Payments							Straight-Time		Overtime Hourly Rate			
	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday <sup>e</sup>	Training	Other Payments	Hours	Total Hourly Rate		Daily/ Saturday <sup>d</sup> 1 1/2X		Sunday and Holiday 2X	
Classification Group <sup>a</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>						Area 1 <sup>b</sup>	Area 2 <sup>c</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>
Group 1	\$55.15	\$57.15	\$13.88	\$10.78	\$4.77	\$1.07	8	\$86.78	\$88.78	\$114.36	\$117.36	\$141.93	\$145.93
Group 2	\$53.51	\$55.51	\$13.88	\$10.78	\$4.77	\$1.07	8	\$85.14	\$87.14	\$111.90	\$114.90	\$138.65	\$142.65
Group 3	\$51.95	\$53.95	\$13.88	\$10.78	\$4.77	\$1.07	8	\$83.58	\$85.58	\$109.56	\$112.56	\$135.53	\$139.53
Group 4	\$50.43	\$52.43	\$13.88	\$10.78	\$4.77	\$1.07	8	\$82.06	\$84.06	\$107.28	\$110.28	\$132.49	\$136.49
Group 5	\$49.08	\$51.08	\$13.88	\$10.78	\$4.77	\$1.07	8	\$80.71	\$82.71	\$105.25	\$108.25	\$129.79	\$133.79
Group 6	\$47.64	\$49.64	\$13.88	\$10.78	\$4.77	\$1.07	8	\$79.27	\$81.27	\$103.09	\$106.09	\$126.91	\$130.91
Group 7	\$46.43	\$48.43	\$13.88	\$10.78	\$4.77	\$1.07	8	\$78.06	\$80.06	\$101.28	\$104.28	\$124.49	\$128.49
Group 8	\$45.22	\$47.22	\$13.88	\$10.78	\$4.77	\$1.07	8	\$76.85	\$78.85	\$99.46	\$102.46	\$122.07	\$126.07
Group 8-A	\$42.83	\$44.83	\$13.88	\$10.78	\$4.77	\$1.07	8	\$74.46	\$76.46	\$95.88	\$98.88	\$117.29	\$121.29
<b>ALL CRANES AND ATTACHMENTS:</b>													
Group 1	\$56.86	\$58.86	\$13.88	\$10.78	\$4.77	\$1.07	8	\$88.49	\$90.49	\$116.92	\$119.92	\$145.35	\$149.35
Truck Crane Assistant to Engineer	\$49.37	\$51.37	\$13.88	\$10.78	\$4.77	\$1.07	8	\$81.00	\$83.00	\$105.69	\$108.69	\$130.37	\$134.37
Assistant to Engineer	\$46.91	\$48.91	\$13.88	\$10.78	\$4.77	\$1.07	8	\$78.54	\$80.54	\$102.00	\$105.00	\$125.45	\$129.45
Group 1-A	\$56.11	\$58.11	\$13.88	\$10.78	\$4.77	\$1.07	8	\$87.74	\$89.74	\$115.80	\$118.80	\$143.85	\$147.85
Truck Crane Assistant to Engineer	\$48.62	\$50.62	\$13.88	\$10.78	\$4.77	\$1.07	8	\$80.25	\$82.25	\$104.56	\$107.56	\$128.87	\$132.87
Assistant to Engineer	\$46.16	\$48.16	\$13.88	\$10.78	\$4.77	\$1.07	8	\$77.79	\$79.79	\$100.87	\$103.87	\$123.95	\$127.95
Group 2-A	\$54.20	\$56.20	\$13.88	\$10.78	\$4.77	\$1.07	8	\$85.83	\$87.83	\$112.93	\$115.93	\$140.03	\$144.03
Truck Crane Assistant to Engineer	\$48.35	\$50.35	\$13.88	\$10.78	\$4.77	\$1.07	8	\$79.98	\$81.98	\$104.16	\$107.16	\$128.33	\$132.33
Assistant to Engineer	\$45.92	\$47.92	\$13.88	\$10.78	\$4.77	\$1.07	8	\$77.55	\$79.55	\$100.51	\$103.51	\$123.47	\$127.47
Group 3-A	\$52.34	\$54.34	\$13.88	\$10.78	\$4.77	\$1.07	8	\$83.97	\$85.97	\$110.14	\$113.14	\$136.31	\$140.31
Truck Crane Assistant to Engineer	\$48.08	\$50.08	\$13.88	\$10.78	\$4.77	\$1.07	8	\$79.71	\$81.71	\$103.75	\$106.75	\$127.79	\$131.79
Hydraulic	\$47.64	\$49.64	\$13.88	\$10.78	\$4.77	\$1.07	8	\$79.27	\$81.27	\$103.09	\$106.09	\$126.91	\$130.91
Assistant to Engineer	\$45.64	\$47.64	\$13.88	\$10.78	\$4.77	\$1.07	8	\$77.27	\$79.27	\$100.09	\$103.09	\$122.91	\$126.91
Group 4-A	\$49.08	\$51.08	\$13.88	\$10.78	\$4.77	\$1.07	8	\$80.71	\$82.71	\$105.25	\$108.25	\$129.79	\$133.79

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> For classifications within each group, see pages 39B-40.

<sup>b</sup> **AREA 1** - Butte, Kings, Merced, Napa, Sacramento, San Benito, San Joaquin, Santa Cruz, Stanislaus, Sutter, Yolo, and Yuba counties; and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity counties.

<sup>c</sup> **AREA 2** - Modoc, and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity counties. (Portions of counties falling in each area detailed on page 41).

<sup>d</sup> Saturday in the same work week may be worked at straight-time if a job is shut down during the normal work week due to inclement weather.

<sup>e</sup> Includes an amount for supplemental dues.

<sup>f</sup> For total base bid project value of less than \$3,000,000 only. The Operating Engineer (Heavy and Highway Work) determination is applicable for all work \$3,000,000 and above.

Where there is a published or advertised estimate of the construction costs of a project, such estimate shall determine the total base bid project value, for the purposes of the three million dollars (\$3,000,000) threshold.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: #STEEL ERECTOR AND FABRICATOR (OPERATING ENGINEER-BUILDING CONSTRUCTION)<sup>e</sup>**

**DETERMINATION:** NC-23-63-1-2020-2D1

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Joaquin, Santa Cruz, Shasta, Sierra, Siskiyou, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

Classification <sup>b</sup> (Journey person)	Employer Payments						Straight-Time		Overtime Hourly Rate		
	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday <sup>c</sup>	Training	Other Payments	Hours <sup>d</sup>	Total Hourly Rate	Daily 1 1/2X	Saturday <sup>a</sup> 1 1/2X	Sunday and Holiday 2X
Group A-1	\$52.54	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$84.17	\$110.44	\$110.44	\$136.71
Truck Crane Assistant to Engineer	\$45.55	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$77.18	\$99.96	\$99.96	\$122.73
Assistant to Engineer	\$43.41	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$75.04	\$96.75	\$96.75	\$118.45
Group 1	\$51.79	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$83.42	\$109.32	\$109.32	\$135.21
Truck Crane Assistant to Engineer	\$44.80	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$76.43	\$98.83	\$98.83	\$121.23
Assistant to Engineer	\$42.66	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$74.29	\$95.62	\$95.62	\$116.95
Group 2	\$50.08	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$81.71	\$106.75	\$106.75	\$131.79
Truck Crane Assistant to Engineer	\$44.58	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$76.21	\$98.50	\$98.50	\$120.79
Assistant to Engineer	\$42.41	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$74.04	\$95.25	\$95.25	\$116.45
Group 3	\$48.69	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$80.32	\$104.67	\$104.67	\$129.01
Truck Crane Assistant to Engineer	\$44.33	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$75.96	\$98.13	\$98.13	\$120.29
Hydraulic	\$43.95	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$75.58	\$97.56	\$97.56	\$119.53
Assistant to Engineer	\$42.18	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$73.81	\$94.90	\$94.90	\$115.99
Group 4	\$46.76	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$78.39	\$101.77	\$101.77	\$125.15
Group 5	\$45.51	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$77.14	\$99.90	\$99.90	\$122.65

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> Saturday in the same work week may be worked at straight-time rates if a job is shut down during the normal work week due to inclement weather.

<sup>b</sup> For classifications within each group, see page 45.

<sup>c</sup> Includes an amount for supplemental dues.

<sup>d</sup> When three shifts are employed for five (5) or more consecutive days, seven and one-half (7 1/2) consecutive hours (exclusive of meal period), shall constitute a day of work, for which eight (8) times the straight time hourly rate shall be paid at the non-shift wage rate for the second shift. The third shift shall be seven (7) hours of work for eight (8) hours of pay at the non-shift wage rate.

<sup>e</sup> For total base bid project value of less than \$3,000,000 only. The Operating Engineer (Heavy and Highway Work) determination is applicable for all work \$3,000,000 and above. Where there is a published or advertised estimate of the construction costs of a project, such estimate shall determine the total base bid project value, for the purposes of the three million dollars (\$3,000,000) threshold.

**NOTE:** For Special Single and Second Shift rates, please see page 40D.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: #STEEL ERECTOR AND FABRICATOR (OPERATING ENGINEER-BUILDING CONSTRUCTION)<sup>d</sup>  
(SPECIAL SINGLE AND SECOND SHIFT)**

**DETERMINATION:** NC-23-63-1-2020-2D1

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Joaquin, Santa Cruz, Shasta, Sierra, Siskiyou, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

Classification <sup>b</sup> (Journey person)	Employer Payments						Straight-Time		Overtime Hourly Rate		
	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday <sup>c</sup>	Training	Other Payments	Hours	Total Hourly Rate	Daily 1 1/2X	Saturday <sup>a</sup> 1 1/2X	Sunday and Holiday 2X
Group A-1	\$57.91	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$89.54	\$118.50	\$118.50	\$147.45
Truck Crane Assistant to Engineer	\$50.05	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$81.68	\$106.71	\$106.71	\$131.73
Assistant to Engineer	\$47.63	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$79.26	\$103.08	\$103.08	\$126.89
Group 1	\$57.16	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$88.79	\$117.37	\$117.37	\$145.95
Truck Crane Assistant to Engineer	\$49.30	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$80.93	\$105.58	\$105.58	\$130.23
Assistant to Engineer	\$46.88	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$78.51	\$101.95	\$101.95	\$125.39
Group 2	\$55.24	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$86.87	\$114.49	\$114.49	\$142.11
Truck Crane Assistant to Engineer	\$49.04	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$80.67	\$105.19	\$105.19	\$129.71
Assistant to Engineer	\$46.61	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$78.24	\$101.55	\$101.55	\$124.85
Group 3	\$53.66	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$85.29	\$112.12	\$112.12	\$138.95
Truck Crane Assistant to Engineer	\$48.76	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$80.39	\$104.77	\$104.77	\$129.15
Hydraulic	\$48.35	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$79.98	\$104.16	\$104.16	\$128.33
Assistant to Engineer	\$46.33	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$77.96	\$101.13	\$101.13	\$124.29
Group 4	\$51.51	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$83.14	\$108.90	\$108.90	\$134.65
Group 5	\$50.09	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$81.72	\$106.77	\$106.77	\$131.81

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> Saturday in the same work week may be worked at straight-time rates if a job is shut down during the normal work week due to inclement weather.

<sup>b</sup> For classifications within each group, see page 45.

<sup>c</sup> Includes an amount for supplemental dues.

<sup>d</sup> For total base bid project value of less than \$3,000,000 only. The Operating Engineer (Heavy and Highway Work) determination is applicable for all work \$3,000,000 and above. Where there is a published or advertised estimate of the construction costs of a project, such estimate shall determine the total base bid project value, for the purposes of the three million dollars (\$3,000,000) threshold.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR LANDSCAPE CONSTRUCTION PROJECTS

**CRAFT: # OPERATING ENGINEER**

**DETERMINATION:** NC-63-3-75-2020-1

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

Classification (Journeyperson)	Basic Hourly Rate	Employer Payments						Straight-Time		Overtime Hourly Rate						
		Health and Welfare	Pension and Holiday <sup>d</sup>	Vacation	Training	Other Payments	Hours	Total Hourly Rate	Daily	Saturday <sup>e</sup>	Sunday and Holiday					
									1 1/2X	1 1/2X	2X					
Classification Group <sup>a</sup>		Area 1 <sup>b</sup>	Area 2 <sup>c</sup>					Area 1 <sup>b</sup>	Area 2 <sup>c</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>	
Group I	\$40.02	42.02	13.88	10.35	4.34	1.11	1.03	8	70.73	72.73	90.74	93.74	90.74	93.74	110.75	114.75
Group II	36.42	38.42	13.88	10.35	4.34	1.11	1.03	8	67.13	69.13	85.34	88.34	85.34	88.34	103.55	107.55
Group III	31.81	33.81	13.88	10.35	4.34	1.11	1.03	8	62.52	64.52	78.425	81.425	78.425	81.425	94.33	98.33
Group IV	29.10	31.10	13.88	10.35	4.34	1.11	1.03	8	59.81	61.81	74.36	77.36	74.36	77.36	88.91	92.91

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at

<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> For classifications within each group, see below.

<sup>b</sup> **AREA 1** - Alameda, Butte, Contra Costa, Kings, Marin, Merced, Napa, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Solano, Stanislaus, Sutter, Yolo and Yuba Counties; and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity Counties.

<sup>c</sup> **AREA 2** - Modoc, and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity Counties. (Portions of counties falling in each area detailed on page 41).

<sup>d</sup> Includes an amount for Supplemental Dues.

<sup>e</sup> Saturdays in the same work week may be worked at straight-time if a job is shut down during the normal work week due to inclement weather, major mechanical breakdown or shortage of materials beyond the control of the Individual Employer.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

### CLASSIFICATIONS

#### Group I

Landscape Finish Grade Operator. All finish grade work regardless of the equipment used, and all equipment with a horsepower rating of more than 65.

#### Group II

Landscape Operator up to 65 H.P. All equipment with a manufacturer's horsepower rating of 65 or less except equipment covered by Group I or Group III. The following equipment shall be included in Group II except when used for finish work so long as its manufacturer's horsepower rating is 65 or less.

A-Frame and Winch Truck  
Backhoe  
Forklift (Jobsite)

HDR Welder - Landscape - Operating Engineer's Equipment  
Hydro Seeder Machine  
Roller  
Rubber-Tired and Track Earthmoving Equipment  
Skiploader  
Straw Blowers  
Trencher - 35 Horsepower up to 65 Horsepower

#### Group III

Landscape Utility Operator  
Small Rubber-Tired Tractor  
Trencher - Under 35 Horsepower

#### Group IV

Assistant Landscape Utility Operator

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR LANDSCAPE CONSTRUCTION PROJECTS

**CRAFT: # OPERATING ENGINEER (SPECIAL SINGLE AND SECOND SHIFT)**

**DETERMINATION:** NC-63-3-75-2020-1

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

Classification (Journeyperson)	Basic Hourly Rate	Employer Payments						Straight-Time		Overtime Hourly Rate						
		Health and Welfare	Pension and Holiday <sup>d</sup>	Vacation	Training	Other Payments	Hours	Total Hourly Rate	Daily 1 1/2X	Saturday <sup>e</sup>		Sunday & Holiday 2X				
Classification Group <sup>a</sup>		Area 1 <sup>b</sup>	Area 2 <sup>c</sup>					Area 1 <sup>b</sup>	Area 2 <sup>c</sup>	Area 1	Area 2 <sup>c</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>	
Group I	\$44.43	46.43	13.88	10.35	4.34	1.11	1.03	8	75.14	77.14	97.355	100.355	97.355	100.355	119.57	123.57
Group II	40.38	42.38	13.88	10.35	4.34	1.11	1.03	8	71.09	73.09	91.28	94.28	91.28	94.28	111.47	115.47
Group III	35.19	37.19	13.88	10.35	4.34	1.11	1.03	8	65.90	67.90	83.495	86.495	83.495	86.495	101.09	105.09
Group IV	32.29	34.29	13.88	10.35	4.34	1.11	1.03	8	63.00	65.00	79.145	82.145	79.145	82.145	95.29	99.29

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at

<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> For classifications within each group, see below.

<sup>b</sup> **AREA 1** - Alameda, Butte, Contra Costa, Kings, Marin, Merced, Napa, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Solano, Stanislaus, Sutter, Yolo and Yuba Counties; and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity Counties.

<sup>c</sup> **AREA 2** - Modoc, and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity Counties. (Portions of counties falling in each area detailed on page 41).

<sup>d</sup> Includes an amount for Supplemental Dues.

<sup>e</sup> Saturdays in the same work week may be worked at straight-time if a job is shut down during the normal work week due to inclement weather, major mechanical breakdown or shortage of materials beyond the control of the Individual Employer.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

## CLASSIFICATIONS

### Group I

Landscape Finish Grade Operator. All finish grade work regardless of the equipment used, and all equipment with a horsepower rating of more than 65.

### Group II

Landscape Operator up to 65 H.P. All equipment with a manufacturer's horsepower rating of 65 or less except equipment covered by Group I or Group III. The following equipment shall be included in Group II except when used for finish work so long as its manufacturer's horsepower rating is 65 or less.

A-Frame and Winch Truck  
Backhoe  
Forklift (Jobsite)

HDR Welder - Landscape - Operating Engineer's Equipment  
Hydro Seeder Machine  
Roller  
Rubber-Tired and Track Earthmoving Equipment  
Skiploader  
Straw Blowers  
Trencher - 35 Horsepower up to 65 Horsepower

### Group III

Landscape Utility Operator  
Small Rubber-Tired Tractor  
Trencher - Under 35 Horsepower

### Group IV

Assistant Landscape Utility Operator

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1  
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: # DREDGER OPERATING ENGINEER**

(CLAMSHELL AND DIPPER DREDGING AND HYDRAULIC SUCTION DREDGING)

**DETERMINATION:** NC-63-3-12-2020-1

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** July 31, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

Classification (Journey person)	Basic Hourly Rate	Employer Payments						Straight-Time		Overtime Hourly Rate					
		Health and Welfare	Pension <sup>c</sup>	Vacation and Holiday <sup>d</sup>	Training	Other Payments		Hours	Total Hourly Rate	Daily <sup>g</sup> 1 1/2X	Saturday <sup>fg</sup> 1 1/2X	Sunday and Holiday 2X			
Classification Group <sup>a</sup>															
First Shift	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>						Area 1 <sup>b</sup>	Area 2 <sup>c</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>
Group 1	\$49.88	51.88	13.88	15.23	6.06	0.49	0.33	8	85.87	87.87	110.81	113.81	110.81	113.81	135.75
Group 2	44.92	46.92	13.88	15.23	6.06	0.49	0.33	8	80.91	82.91	103.37	106.37	103.07	106.37	125.83
Group 3	43.80	45.80	13.88	15.23	6.06	0.49	0.33	8	79.79	81.79	101.69	104.69	101.69	104.69	123.59
Group 4	40.50	42.50	13.88	15.23	6.06	0.49	0.33	8	76.49	78.49	96.74	99.74	96.74	99.74	116.99
Special Single & Second Shift	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>													
								Area 1 <sup>b</sup>	Area 2 <sup>c</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>	Area 1 <sup>b</sup>	Area 2 <sup>c</sup>
Group 1	\$56.12	58.12	13.88	15.23	6.06	0.49	0.33	8	92.11	94.11	120.17	123.17	120.17	123.17	148.23
Group 2	50.54	52.24	13.88	15.23	6.06	0.49	0.33	8	86.53	88.53	111.80	114.80	111.80	114.80	137.07
Group 3	49.28	51.28	13.88	15.23	6.06	0.49	0.33	8	85.27	87.27	109.91	112.91	109.91	112.91	134.55
Group 4	45.56	47.56	13.88	15.23	6.06	0.49	0.33	8	81.55	83.55	104.33	107.33	104.33	107.33	127.11

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> For classifications within each group, see below.

<sup>b</sup> **AREA 1** - Alameda, Butte, Contra Costa, Kings, Marin, Merced, Napa, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Solano, Stanislaus, Sutter, Yolo and Yuba counties; and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Trinity, Tulare, and Tuolumne counties.

<sup>c</sup> **AREA 2** - Modoc, and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Trinity, Tulare, and Tuolumne counties (Portions of counties falling in each area detailed on page 41).

<sup>d</sup> Includes an amount for Supplemental Dues.

<sup>e</sup> Includes an amount for Annuity Trust Fund.

<sup>f</sup> Saturday in the same workweek may be worked at straight-time if a job is shut down during the normal workweek due to inclement weather.

<sup>g</sup> Rate applies to the first 4 daily overtime hours Monday thru Friday and the first 12 hours on Saturday. All other time worked is paid at the Sunday and Holiday overtime rate.

**GROUP 1**

Chief Engineer  
Day Mate (Captain)  
Leverman/Operator

**GROUP 2**

Dredge Dozer  
HDR/Welder

**GROUP 3**

Booster Pump Operator  
Deck Engineer  
Deck Mate  
Dredge Tender  
Watch Engineer  
Welder  
Winch Man

**GROUP 4**

Bargeman  
Deckhand  
Fireman  
Leveehand  
Oiler

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: TRAFFIC CONTROL/LANE CLOSURE (LABORER) <sup>h</sup>**  
**AND**  
**# PARKING AND HIGHWAY IMPROVEMENT PAINTER (LABORER)**

**DETERMINATION:** NC-23-102-13-2020-2

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

Classification (Journey person)	Basic Hourly Rate	Employer Payments					Straight-Time		Overtime Hourly Rate		
		Health and Welfare <sup>e</sup>	Pension <sup>a</sup>	Vacation and Holiday <sup>b</sup>	Training	Other Payments	Hours	Total Hourly Rate	Daily <sup>f</sup>	Saturday <sup>c,f</sup>	Sunday And Holiday <sup>g</sup>
									1 1/2X	1 1/2X	

**TRAFFIC CONTROL AND RELATED CLASSIFICATIONS**

**AREA 1 <sup>d</sup>**

Traffic Control Person I	33.24	9.00	12.96	3.05	0.50	0.28	8	59.03	75.650	75.650	92.27
Traffic Control Person II	30.74	9.00	12.96	3.05	0.50	0.28	8	56.53	71.900	71.900	87.27
Construction Zone Traffic Control Pilot Car, Flag Person	32.94	9.00	12.96	3.05	0.50	0.28	8	58.73	75.200	75.200	91.67

**AREA 2 <sup>d</sup>**

Traffic Control Person I	32.24	9.00	12.96	3.05	0.50	0.28	8	58.03	74.150	74.150	90.27
Traffic Control Person II	29.74	9.00	12.96	3.05	0.50	0.28	8	55.53	70.400	70.400	85.27
Construction Zone Traffic Control Pilot Car, Flag Person	31.94	9.00	12.96	3.05	0.50	0.28	8	57.73	73.700	73.700	89.67

**DETERMINATION:** NC-23-102-13-2020-2A

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, and Yuba Counties.

**STRIPER AND RELATED CLASSIFICATIONS**

Classification (Journey person)	Basic Hourly Rate	Employer Payments					Straight-Time		Overtime Hourly Rate		
		Health <sup>e</sup> and Welfare	Pension <sup>a</sup>	Vacation and Holiday <sup>b</sup>	Training	Other Payments	Hours	Total Hourly Rate	Daily <sup>f</sup>	Saturday <sup>c,f</sup>	Sunday and Holiday <sup>g</sup>
									1 1/2X	1 1/2X	
Group 1	36.13	9.00	12.35	3.05	0.50	0.25	8	61.28	79.345	79.345	97.41
Group 2	34.63	9.00	12.35	3.05	0.50	0.25	8	59.78	77.095	77.095	94.41
Group 3	32.88	9.00	12.35	3.05	0.50	0.25	8	58.03	74.470	74.470	90.91
Group 4	30.78	9.00	12.35	3.05	0.50	0.25	8	55.93	71.320	71.320	86.71

**Group 1**

Traffic Striping Applicator

**Group 2**

Traffic Delineating Device Applicator  
Traffic Protective System Installer  
Pavement Markings Applicator  
Decorative Asphalt Surfacing Applicator

**Group 3**

Traffic Surface Abrasive Blaster  
Pot Tender

**Group 4**

Parking Lots, Game Courts & Playground  
Striping Applicator  
Decorative Asphalt Surfacing Laborer

Footnotes are listed on page 44A



**Determination:** NC-23-102-13-2020-2 and NC-23-102-13-2020-2A

- # Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.
- a Includes an amount for the Annuity Trust Fund.
- b Includes an amount for Supplemental Dues.
- c Saturdays or scheduled sixth (6<sup>th</sup>) consecutive work day in the same work week may be worked at straight-time if the job is shut down during the normal work week due to inclement weather, major mechanical breakdown or lack of materials beyond the control of the employer.
- d **AREA 1** - Alameda, Contra Costa, Marin, San Francisco, San Mateo and Santa Clara Counties.  
**AREA 2** - Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Joaquin, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo and Yuba Counties.
- e Includes an amount for Retiree Health & Welfare
- f One and one-half (1-1/2) the straight time hourly rate of pay shall be paid for all work performed in excess of forty hours (40) a week or eight hours (8) a day and the sixth (6<sup>th</sup>) consecutive day worked or Saturdays.
- g Two times (2x) the straight time hourly rate of pay shall be paid for all work performed on the seventh (7<sup>th</sup>) consecutive day worked, or Sundays and holidays.
- h The rates of the Laborer classifications for the craft of Traffic Control/Lane Closure (Laborer) do not apply to traffic control work associated with parking and highway improvement projects in San Joaquin, Tuolumne, and Yolo Counties. For traffic control work associated with parking and highway improvement projects in these three counties, the minimum rate of pay is that of the Painter classifications for the craft of Parking and Highway Improvement Painter (Painter).

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Prevailing Wage Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Prevailing Wage Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: #STEEL ERECTOR AND FABRICATOR (OPERATING ENGINEER-HEAVY AND HIGHWAY WORK)<sup>c</sup>**

**DETERMINATION:** NC-23-63-1-2020-2D

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

Classification (Journey person)	Employer Payments						Straight-Time		Overtime Hourly Rate		
	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday <sup>d</sup>	Training	Other Payments	Hours <sup>e</sup>	Total Hourly Rate	Daily <sup>b</sup> 1 1/2X	Saturday <sup>a&amp;b</sup> 1 1/2X	Sunday and Holiday 2X
Group A-1	\$54.02	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$85.65	\$112.66	\$112.66	\$139.67
Truck Crane Assistant to Engineer	\$46.70	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$78.33	\$101.68	\$101.68	\$125.03
Assistant to Engineer	\$44.47	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$76.10	\$98.34	\$98.34	\$120.57
Group 1	\$53.27	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$84.90	\$111.54	\$111.54	\$138.17
Truck Crane Assistant to Engineer	\$45.95	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$77.58	\$100.56	\$100.56	\$123.53
Assistant to Engineer	\$43.72	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$75.35	\$97.21	\$97.21	\$119.07
Group 2	\$51.50	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$83.13	\$108.88	\$108.88	\$134.63
Truck Crane Assistant to Engineer	\$45.73	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$77.36	\$100.23	\$100.23	\$123.09
Assistant to Engineer	\$43.45	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$75.08	\$96.81	\$96.81	\$118.53
Group 3	\$50.02	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$81.65	\$106.66	\$106.66	\$131.67
Truck Crane Assistant to Engineer	\$45.46	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$77.09	\$99.82	\$99.82	\$122.55
Hydraulic	\$45.07	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$76.70	\$99.24	\$99.24	\$121.77
Assistant to Engineer	\$43.23	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$74.86	\$96.48	\$96.48	\$118.09
Group 4	\$48.00	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$79.63	\$103.63	\$103.63	\$127.63
Group 5	\$46.70	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$78.33	\$101.68	\$101.68	\$125.03

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> Saturday in the same work week may be worked at straight-time rates if a job is shut down during the normal work week due to inclement weather.

<sup>b</sup> Rate applies to the first 2 daily overtime hours and the first 8 hours on Saturday only. All other time is paid at the Sunday/Holiday overtime rate.

<sup>c</sup> For Building Construction, see page 40B

<sup>d</sup> Includes an amount for supplemental dues.

<sup>e</sup> When three shifts are employed for five (5) or more consecutive days, seven and one-half (7 1/2) consecutive hours (exclusive of meal period), shall constitute a day of work, for which eight (8) times the straight time hourly rate shall be paid at the non-shift wage rate for the second shift. The third shift shall be seven (7) hours of work for eight (8) hours of pay at the non-shift wage rate.

**GROUP A-1**

Cranes over 350 Tons  
Derrick over 250 Tons  
Self Propelled Boom Type Lifting Devices over 250 Tons

**GROUP 1**

Cranes over 100 tons  
Derrick over 100 tons  
Self Propelled Boom Type Lifting Device over 100 tons  
Tower Crane

**GROUP 2**

Cranes over 45 tons up to and including 100 tons  
Derrick, 100 tons and under  
Self Propelled Boom Type Lifting Device, over 45 tons

**GROUP 3**

Cranes, 45 tons and under  
Self Propelled Boom Type Lifting Device, 45 tons and under

**GROUP 4**

Chicago Boom  
Forklift, 10 tons and over  
Heavy Duty Repairman/Welder

**GROUP 5**

Boom Cat

**NOTE:** For Special Single and Second Shift rates, please see page 45A.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: #STEEL ERECTOR AND FABRICATOR (OPERATING ENGINEER-HEAVY AND HIGHWAY WORK)<sup>c</sup>**  
**(SPECIAL SINGLE AND SECOND SHIFT)**

**DETERMINATION:** NC-23-63-1-2020-2D

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

Classification (Journey person)	Employer Payments						Straight-Time		Overtime Hourly Rate		
	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday <sup>d</sup>	Training	Other Payments	Hours	Total Hourly Rate	Daily <sup>b</sup> 1 1/2X	Saturday <sup>a&amp;b</sup> 1 1/2X	Sunday and Holiday 2X
Group A-1	\$59.57	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$91.20	\$120.99	\$120.99	\$150.77
Truck Crane Assistant to Engineer	\$51.34	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$82.97	\$108.64	\$108.64	\$134.31
Assistant to Engineer	\$48.82	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$80.45	\$104.86	\$104.86	\$129.27
Group 1	\$58.82	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$90.45	\$119.86	\$119.86	\$149.27
Truck Crane Assistant to Engineer	\$50.59	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$82.22	\$107.52	\$107.52	\$132.81
Assistant to Engineer	\$48.07	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$79.70	\$103.74	\$103.74	\$127.77
Group 2	\$56.84	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$88.47	\$116.89	\$116.89	\$145.31
Truck Crane Assistant to Engineer	\$50.34	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$81.97	\$107.14	\$107.14	\$132.31
Assistant to Engineer	\$47.79	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$79.42	\$103.32	\$103.32	\$127.21
Group 3	\$55.16	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$86.79	\$114.37	\$114.37	\$141.95
Truck Crane Assistant to Engineer	\$50.04	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$81.67	\$106.69	\$106.69	\$131.71
Hydraulic	\$49.61	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$81.24	\$106.05	\$106.05	\$130.85
Assistant to Engineer	\$47.53	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$79.16	\$102.93	\$102.93	\$126.69
Group 4	\$52.90	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$84.53	\$110.98	\$110.98	\$137.43
Group 5	\$51.43	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$83.06	\$108.78	\$108.78	\$134.49

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> Saturday in the same work week may be worked at straight-time rates if a job is shut down during the normal work week due to inclement weather.

<sup>b</sup> Rate applies to the first 2 daily overtime hours and the first 8 hours on Saturday only. All other time is paid at the Sunday/Holiday overtime rate.

<sup>c</sup> For Building Construction, see page 40B

<sup>d</sup> Includes an amount for supplemental dues.

**GROUP A-1**

Cranes over 350 Tons  
Derrick over 250 Tons  
Self Propelled Boom Type Lifting Devices over 250 Tons

**GROUP 1**

Cranes over 100 tons  
Derrick over 100 tons  
Self Propelled Boom Type Lifting Device over 100 tons  
Tower Crane

**GROUP 2**

Cranes over 45 tons up to and including 100 tons  
Derrick, 100 tons and under  
Self Propelled Boom Type Lifting Device, over 45 tons

**GROUP 3**

Cranes, 45 tons and under  
Self Propelled Boom Type Lifting Device, 45 tons and under

**GROUP 4**

Chicago Boom  
Forklift, 10 tons and over  
Heavy Duty Repairman/Welder

**GROUP 5**

Boom Cat

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: #PILE DRIVER (OPERATING ENGINEER-HEAVY AND HIGHWAY WORK)**

**DETERMINATION:** NC-23-63-1-2020-2B

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

Classification (Journey person)	Employer Payments						Straight-Time		Overtime Hourly Rate		
	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday <sup>b</sup>	Training	Other Payments	Hours <sup>d</sup>	Total Hourly Rate	Daily <sup>c</sup> 1 1/2X	Saturday <sup>a</sup> 1 1/2X	Sunday and Holiday 2X
Group A-1	\$53.39	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$85.02	\$111.72	\$111.72	\$138.41
Truck Crane Assistant to Engineer	\$46.41	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$78.04	\$101.25	\$101.25	\$124.45
Assistant to Engineer	\$44.13	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$75.76	\$97.83	\$97.83	\$119.89
Group 1	\$52.64	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$84.27	\$110.59	\$110.59	\$136.91
Truck Crane Assistant to Engineer	\$45.66	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$77.29	\$100.12	\$100.12	\$122.95
Assistant to Engineer	\$43.38	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$75.01	\$96.70	\$96.70	\$118.39
Group 2	\$50.82	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$82.45	\$107.86	\$107.86	\$133.27
Truck Crane Assistant to Engineer	\$45.41	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$77.04	\$99.75	\$99.75	\$122.45
Assistant to Engineer	\$43.11	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$74.74	\$96.30	\$96.30	\$117.85
Group 3	\$49.14	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$80.77	\$105.34	\$105.34	\$129.91
Truck Crane Assistant to Engineer	\$45.12	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$76.75	\$99.31	\$99.31	\$121.87
Assistant to Engineer	\$42.89	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$74.52	\$95.97	\$95.97	\$117.41
Group 4	\$47.37	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$79.00	\$102.69	\$102.69	\$126.37
Group 6	\$44.73	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$76.36	\$98.73	\$98.73	\$121.09
Group 8	\$42.50	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$74.13	\$95.38	\$95.38	\$116.63

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<sup>d</sup> When three shifts are employed for five (5) or more consecutive days, seven and one-half (7 1/2) consecutive hours (exclusive of meal period), shall constitute a day of work, for which eight (8) times the straight time hourly rate shall be paid at the non-shift wage rate for the second shift. The third shift shall be seven (7) hours of work for eight (8) hours of pay at the non-shift wage rate.

**GROUP A-1**

Cranes over 350 Tons  
Derrick over 250 Tons  
Self Propelled Boom Type Lifting Devices over 250 Tons

**GROUP 1**

Clamshells Over 7 Cu Yds  
Derrick Barge Pedestal Mounted Over 100 Tons  
Self Propelled Boom Type Lifting Device Over 100 Tons  
Truck Crane Or Crawler, Land Or Barge Mounted Over 100 Tons

**GROUP 2**

Clamshells Up To And Including 7 Cu Yds  
Derrick Barge Pedestal Mounted 45 Tons Up To And Including 100 Tons  
Fundex F-12 Hydraulic Pile Rig  
Self Propelled Boom Type Lifting Device Over 45 Tons  
Truck Crane Or Crawler, Land Or Barge Mounted, Over 45 Tons  
Up To And Including 100 Tons

**GROUP 3**

Derrick Barge Pedestal Mounted Under 45 Tons  
Self Propelled Boom Type Lifting Device 45 Tons And Under  
Shid/Scow Piledriver, Any Tonnage  
Truck Crane Or Crawler, Land Or Barge Mounted 45 Tons And Under

**GROUP 4**

Assistant Operator  
Forklift, 10 Tons And Over  
Heavy Duty Repairman/Welder

**GROUP 6**

Deck Engineer

**GROUP 8**

Deckhand  
Fireman

**NOTE:** For Special Single and Second Shift rates, please see page 47B.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

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GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: #PILE DRIVER (OPERATING ENGINEER-HEAVY AND HIGHWAY WORK)  
(SPECIAL SINGLE AND SECOND SHIFT)**

**DETERMINATION:** NC-23-63-1-2020-2B

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

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Classification (Journey person)	Employer Payments						Straight-Time		Overtime Hourly Rate		
	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday <sup>b</sup>	Training	Other Payments	Hours	Total Hourly Rate	Daily <sup>c</sup> 1 1/2X	Saturday <sup>a</sup> 1 1/2X	Sunday and Holiday 2X
Group A-1	\$58.86	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$90.49	\$119.92	\$119.92	\$149.35
Truck Crane Assistant to Engineer	\$51.01	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$82.64	\$108.15	\$108.15	\$133.65
Assistant to Engineer	\$48.44	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$80.07	\$104.29	\$104.29	\$128.51
Group 1	\$58.11	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$89.74	\$118.80	\$118.80	\$147.85
Truck Crane Assistant to Engineer	\$50.26	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$81.89	\$107.02	\$107.02	\$132.15
Assistant to Engineer	\$47.69	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$79.32	\$103.17	\$103.17	\$127.01
Group 2	\$56.06	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$87.69	\$115.72	\$115.72	\$143.75
Truck Crane Assistant to Engineer	\$49.99	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$81.62	\$106.62	\$106.62	\$131.61
Assistant to Engineer	\$47.39	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$79.02	\$102.72	\$102.72	\$126.41
Group 3	\$54.18	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$85.81	\$112.90	\$112.90	\$139.99
Truck Crane Assistant to Engineer	\$49.66	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$81.29	\$106.12	\$106.12	\$130.95
Assistant to Engineer	\$47.15	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$78.78	\$102.36	\$102.36	\$125.93
Group 4	\$52.18	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$83.81	\$109.90	\$109.90	\$135.99
Group 6	\$49.21	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$80.84	\$105.45	\$105.45	\$130.05
Group 8	\$46.71	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$78.34	\$101.70	\$101.70	\$125.05

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<sup>a</sup> Saturday in the same work week may be worked at straight-time rates if a job is shut down during the normal work week due to inclement weather.

<sup>b</sup> Includes an amount for supplemental dues.

<sup>c</sup> Rate applies to the first 2 daily overtime hours only. All other time is paid at the double time rate.

**GROUP A-1**

Cranes over 350 Tons  
Derrick over 250 Tons  
Self Propelled Boom Type Lifting Devices over 250 Tons

**GROUP 1**

Clamshells Over 7 Cu Yds  
Derrick Barge Pedestal Mounted Over 100 Tons  
Self Propelled Boom Type Lifting Device Over 100 Tons  
Truck Crane Or Crawler, Land Or Barge Mounted Over 100 Tons

**GROUP 2**

Clamshells Up To And Including 7 Cu Yds  
Derrick Barge Pedestal Mounted 45 Tons Up To And Including 100 Tons  
Fundex F-12 Hydraulic Pile Rig  
Self Propelled Boom Type Lifting Device Over 45 Tons  
Truck Crane Or Crawler, Land Or Barge Mounted, Over 45 Tons  
Up To And Including 100 Tons

**GROUP 3**

Derrick Barge Pedestal Mounted Under 45 Tons  
Self Propelled Boom Type Lifting Device 45 Tons And Under  
Shid/Scow Piledriver, Any Tonnage  
Truck Crane Or Crawler, Land Or Barge Mounted 45 Tons And Under

**GROUP 4**

Assistant Operator  
Forklift, 10 Tons And Over  
Heavy Duty Repairman/Welder

**GROUP 6**

Deck Engineer

**GROUP 8**

Deckhand  
Fireman

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: #PILE DRIVER (OPERATING ENGINEER-BUILDING CONSTRUCTION)<sup>e</sup>**

**DETERMINATION:** NC-23-63-1-2020-2B1

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Joaquin, Santa Cruz, Shasta, Sierra, Siskiyou, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

Classification <sup>b</sup> (Journey person)	Employer Payments						Straight-Time		Overtime Hourly Rate		
	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday <sup>c</sup>	Training	Other Payments	Hours <sup>d</sup>	Total Hourly Rate	Daily 1 1/2X	Saturday <sup>a</sup> 1 1/2X	Sunday and Holiday 2X
Group A-1	\$51.91	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$83.54	\$109.50	\$109.50	\$135.45
Truck Crane Assistant to Engineer	\$45.26	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$76.89	\$99.52	\$99.52	\$122.15
Assistant to Engineer	\$43.09	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$74.72	\$96.27	\$96.27	\$117.81
Group 1	\$51.16	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$82.79	\$108.37	\$108.37	\$133.95
Truck Crane Assistant to Engineer	\$44.51	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$76.14	\$98.40	\$98.40	\$120.65
Assistant to Engineer	\$42.34	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$73.97	\$95.14	\$95.14	\$116.31
Group 2	\$49.45	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$81.08	\$105.81	\$105.81	\$130.53
Truck Crane Assistant to Engineer	\$44.28	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$75.91	\$98.05	\$98.05	\$120.19
Assistant to Engineer	\$42.09	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$73.72	\$94.77	\$94.77	\$115.81
Group 3	\$47.84	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$79.47	\$103.39	\$103.39	\$127.31
Truck Crane Assistant to Engineer	\$44.01	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$75.64	\$97.65	\$97.65	\$119.65
Assistant to Engineer	\$41.86	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$73.49	\$94.42	\$94.42	\$115.35
Group 4	\$46.14	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$77.77	\$100.84	\$100.84	\$123.91
Group 6	\$43.64	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$75.27	\$97.09	\$97.09	\$118.91
Group 8	\$41.50	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$73.13	\$93.88	\$93.88	\$114.63

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> Saturday in the same work week may be worked at straight-time rates if a job is shut down during the normal work week due to inclement weather.

<sup>b</sup> For classifications within each group, see page 47.

<sup>c</sup> Includes an amount for supplemental dues.

<sup>d</sup> When three shifts are employed for five (5) or more consecutive days, seven and one-half (7 1/2) consecutive hours (exclusive of meal period), shall constitute a day of work, for which eight (8) times the straight time hourly rate shall be paid at the non-shift wage rate for the second shift. The third shift shall be seven (7) hours of work for eight (8) hours of pay at the non-shift wage rate.

<sup>e</sup> For total base bid project value of less than \$3,000,000 only. The Operating Engineer (Heavy and Highway Work) determination is applicable for all work \$3,000,000 and above. Where there is a published or advertised estimate of the construction costs of a project, such estimate shall determine the total base bid project value, for the purposes of the three million dollars (\$3,000,000) threshold.

**NOTE:** For Special Single and Second Shift rates, please see page 47C.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: #PILE DRIVER (OPERATING ENGINEER-BUILDING CONSTRUCTION)<sup>d</sup>**  
**(SPECIAL SINGLE AND SECOND SHIFT)**

**DETERMINATION:** NC-23-63-1-2020-2B1

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Joaquin, Santa Cruz, Shasta, Sierra, Siskiyou, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

Classification <sup>b</sup> (Journey person)	Employer Payments						Straight-Time		Overtime Hourly Rate		
	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday <sup>c</sup>	Training	Other Payments	Hours	Total Hourly Rate	Daily 1 1/2X	Saturday <sup>a</sup> 1 1/2X	Sunday and Holiday 2X
Group A-1	\$57.20	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$88.83	\$117.43	\$117.43	\$146.03
Truck Crane Assistant to Engineer	\$49.72	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$81.35	\$106.21	\$106.21	\$131.07
Assistant to Engineer	\$47.28	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$78.91	\$102.55	\$102.55	\$126.19
Group 1	\$56.45	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$88.08	\$116.31	\$116.31	\$144.53
Truck Crane Assistant to Engineer	\$48.97	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$80.60	\$105.09	\$105.09	\$129.57
Assistant to Engineer	\$46.53	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$78.16	\$101.43	\$101.43	\$124.69
Group 2	\$54.51	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$86.14	\$113.40	\$113.40	\$140.65
Truck Crane Assistant to Engineer	\$48.72	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$80.35	\$104.71	\$104.71	\$129.07
Assistant to Engineer	\$46.25	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$77.88	\$101.01	\$101.01	\$124.13
Group 3	\$52.72	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$84.35	\$110.71	\$110.71	\$137.07
Truck Crane Assistant to Engineer	\$48.41	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$80.04	\$104.25	\$104.25	\$128.45
Assistant to Engineer	\$45.98	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$77.61	\$100.60	\$100.60	\$123.59
Group 4	\$50.79	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$82.42	\$107.82	\$107.82	\$133.21
Group 6	\$47.98	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$79.61	\$103.60	\$103.60	\$127.59
Group 8	\$45.59	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$77.22	\$100.02	\$100.02	\$122.81

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> Saturday in the same work week may be worked at straight-time rates if a job is shut down during the normal work week due to inclement weather.

<sup>b</sup> For classifications within each group, see page 47.

<sup>c</sup> Includes an amount for supplemental dues.

<sup>d</sup> For total base bid project value of less than \$3,000,000 only. The Operating Engineer (Heavy and Highway Work) determination is applicable for all work \$3,000,000 and above. Where there is a published or advertised estimate of the construction costs of a project, such estimate shall determine the total base bid project value, for the purposes of the three million dollars (\$3,000,000) threshold.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: #LABORER AND RELATED CLASSIFICATIONS**

**DETERMINATION:** NC-23-102-1-2020-2

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Mariposa, Marin, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

Classification <sup>a</sup> (Journeyman)	Basic Hourly Rate <sup>g</sup>	Employer Payments					Straight-Time		Overtime Hourly Rate		
		Health and Welfare	Pension	Vacation and Holiday	Training	Other Payments	Hours <sup>f</sup>	Total Hourly Rate	Daily 1 1/2X	Saturday <sup>b</sup> 1 1/2X	Sunday/ Holiday 2X
AREA 1 <sup>c</sup>											
Construction Specialist	33.50	9.00	12.96	3.05	0.50	0.28	8	59.29	76.04	76.04	92.79
Group 1; Group 1(B) <sup>e</sup>	32.80	9.00	12.96	3.05	0.50	0.28	8	58.59	74.99	74.99	91.39
Group 1 (A)	33.02	9.00	12.96	3.05	0.50	0.28	8	58.81	75.32	75.32	91.83
Group 1 (C)	32.85	9.00	12.96	3.05	0.50	0.28	8	58.64	75.07	75.07	91.49
Group 1 (E)	33.35	9.00	12.96	3.05	0.50	0.28	8	59.14	75.82	75.82	92.49
Group 1 (G)	33.00	9.00	12.96	3.05	0.50	0.28	8	58.79	75.29	75.29	91.79
Group 2	32.65	9.00	12.96	3.05	0.50	0.28	8	58.44	74.77	74.77	91.09
Group 3; Group 3(A)	32.55	9.00	12.96	3.05	0.50	0.28	8	58.34	74.62	74.62	90.89
Group 4; Group 6(B)	26.24	9.00	12.96	3.05	0.50	0.28	8	52.03	65.15 <sup>d</sup>	65.15 <sup>d</sup>	78.27 <sup>d</sup>
Group 6	33.76	9.00	12.96	3.05	0.50	0.28	8	59.55	76.43	76.43	93.31
Group 6 (A)	33.26	9.00	12.96	3.05	0.50	0.28	8	59.05	75.68	75.68	92.31
Group 6 (C)	32.67	9.00	12.96	3.05	0.50	0.28	8	58.46	74.80	74.80	91.13
Group 6 (D)	33.38	9.00	12.96	3.05	0.50	0.28	8	59.17	75.86	75.86	92.55
Group 6 (E)	32.40	9.00	12.96	3.05	0.50	0.28	8	58.19	74.39	74.39	90.59
Group 7 – Stage 1 (1 <sup>st</sup> 6 months)	22.79	9.00	12.96	3.05	0.50	0.28	8	48.58	59.97	59.97	71.37
Stage 2 (2 <sup>nd</sup> 6 months)	26.04	9.00	12.96	3.05	0.50	0.28	8	51.83	64.85	64.85	77.87
Stage 3 (3 <sup>rd</sup> 6 months)	29.30	9.00	12.96	3.05	0.50	0.28	8	55.09	69.73	69.73	84.39
AREA 2 <sup>c</sup>											
Construction Specialist	32.50	9.00	12.96	3.05	0.50	0.28	8	58.29	74.54	74.54	90.79
Group 1; Group 1(B) <sup>e</sup>	31.80	9.00	12.96	3.05	0.50	0.28	8	57.59	73.49	73.49	89.39
Group 1 (A)	32.02	9.00	12.96	3.05	0.50	0.28	8	57.81	73.82	73.82	89.83
Group 1 (C)	31.85	9.00	12.96	3.05	0.50	0.28	8	57.64	73.57	73.57	89.49
Group 1 (E)	32.35	9.00	12.96	3.05	0.50	0.28	8	58.14	74.32	74.32	90.49
Group 2	31.65	9.00	12.96	3.05	0.50	0.28	8	57.44	73.27	73.27	89.09
Group 3; Group 3(A)	31.55	9.00	12.96	3.05	0.50	0.28	8	57.34	73.12	73.12	88.89
Group 4; Group 6(B)	25.24	9.00	12.96	3.05	0.50	0.28	8	51.03	63.65 <sup>d</sup>	63.65 <sup>d</sup>	76.27 <sup>d</sup>
Group 6	32.76	9.00	12.96	3.05	0.50	0.28	8	58.55	74.93	74.93	91.31
Group 6 (A)	32.26	9.00	12.96	3.05	0.50	0.28	8	58.05	74.18	74.18	90.31
Group 6 (C)	31.67	9.00	12.96	3.05	0.50	0.28	8	57.46	73.30	73.30	89.13
Group 6 (D)	32.38	9.00	12.96	3.05	0.50	0.28	8	58.17	74.36	74.36	90.55
Group 6 (E)	31.40	9.00	12.96	3.05	0.50	0.28	8	57.19	72.89	72.89	88.59
Group 7 – Stage 1 (1 <sup>st</sup> 6 months)	22.09	9.00	12.96	3.05	0.50	0.28	8	47.88	58.92	58.92	69.97
Stage 2 (2 <sup>nd</sup> 6 months)	25.24	9.00	12.96	3.05	0.50	0.28	8	51.03	63.65	63.65	76.27
Stage 3 (3 <sup>rd</sup> 6 months)	28.40	9.00	12.96	3.05	0.50	0.28	8	54.19	68.38	68.38	82.59

PLEASE GO TO PAGE 50 FOR CLASSIFICATIONS WITHIN EACH GROUP

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

a GROUP 1(D) - MAINTENANCE OR REPAIR TRACKMEN AND ROAD BEDS AND ALL EMPLOYEES PERFORMING WORK COVERED BY THIS CLASSIFICATION SHALL RECEIVE \$0.25 PER HOUR ABOVE THEIR REGULAR RATE FOR ALL WORK PERFORMED ON UNDERGROUND STRUCTURES NOT SPECIFICALLY COVERED HEREIN. THIS SHALL NOT APPLY TO WORK BELOW GROUND LEVEL IN OPEN CUT. THIS SHALL APPLY TO CUT AND COVER WORK OF SUBWAY CONSTRUCTION AFTER TEMPORARY COVER HAS BEEN PLACED.

GROUP 1(H) - ALL LABORERS WORKING OFF OR WITH OR FROM BOS'N CHAIRS, SWINGING SCAFFOLDS, BELTS RECEIVE \$0.50 PER HOUR ABOVE THEIR APPLICABLE WAGE RATE. THIS SHALL NOT APPLY TO LABORERS ENTITLED TO RECEIVE THE WAGE RATE SET FORTH IN GROUP 1(A).

b SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORK WEEK DUE TO INCLEMENT WEATHER, MAJOR MECHANICAL BREAKDOWN OR LACK OF MATERIALS BEYOND THE CONTROL OF THE EMPLOYER.

c **AREA 1** - ALAMEDA, CONTRA COSTA, MARIN, SAN FRANCISCO, SAN MATEO, AND SANTA CLARA COUNTIES.

**AREA 2** - ALPINE, AMADOR, BUTTE, CALAVERAS, COLUSA, DEL NORTE, EL DORADO, FRESNO, GLENN, HUMBOLDT, KINGS, LAKE, LASSEN, MADERA, MARIPOSA, MENDOCINO, MERCED, MODOC, MONTEREY, NAPA, NEVADA, PLACER, PLUMAS, SACRAMENTO, SAN BENITO, SAN JOAQUIN, SANTA CRUZ, SHASTA, SIERRA, SISKIYOU, SOLANO, SONOMA, STANISLAUS, SUTTER, TEHAMA, TRINITY, TULARE, TUOLUMNE, YOLO AND YUBA COUNTIES.

d SERVICE LANDSCAPE LABORER ON NEW CONSTRUCTION MAY WORK ANY FIVE (5) DAYS WITHIN A WEEK.

e GROUP 1(B) RECEIVES AN ADDITIONAL AMOUNT EACH DAY. SEE PAGE 50 FOR DETAILS.

f WHEN THREE SHIFTS ARE EMPLOYED FOR FIVE (5) OR MORE CONSECUTIVE DAYS, SEVEN AND ONE-HALF (7 ½) CONSECUTIVE HOURS (EXCLUSIVE OF MEAL PERIOD), SHALL CONSTITUTE A DAY OF WORK, FOR WHICH EIGHT (8) TIMES THE STRAIGHT TIME HOURLY RATE SHALL BE PAID AT THE NON-SHIFT WAGE RATE FOR THE SECOND SHIFT. THE THIRD SHIFT SHALL BE SEVEN (7) HOURS OF WORK FOR EIGHT (8) HOURS PAY AT THE NON-SHIFT WAGE RATE.

g ZONE PAY AT THREE DOLLARS (\$3.00) PER HOUR, FACTORED AT THE APPLICABLE OVERTIME MULTIPLE, WILL BE ADDED TO THE BASE RATE FOR WORK PERFORMED OUTSIDE THE FREE ZONE DESCRIBED BY THE BOUNDARIES ALONG TOWNSHIP AND RANGE LINES. PLEASE SEE TRAVEL AND SUBSISTENCE PROVISION FOR MAP DESCRIPTION AND EXCEPTIONS.

**RECOGNIZED HOLIDAYS:** HOLIDAYS UPON WHICH THE GENERAL PREVAILING HOURLY WAGE RATE FOR HOLIDAY WORK SHALL BE PAID, SHALL BE ALL HOLIDAYS IN THE COLLECTIVE BARGAINING AGREEMENT, APPLICABLE TO THE PARTICULAR CRAFT, CLASSIFICATION, OR TYPE OF WORKER EMPLOYED ON THE PROJECT, WHICH IS ON FILE WITH THE DIRECTOR OF INDUSTRIAL RELATIONS. IF THE PREVAILING RATE IS NOT BASED ON A COLLECTIVELY BARGAINED RATE, THE HOLIDAYS UPON WHICH THE PREVAILING RATE SHALL BE PAID SHALL BE AS PROVIDED IN SECTION 6700 OF THE GOVERNMENT CODE. YOU MAY OBTAIN THE HOLIDAY PROVISIONS FOR THE CURRENT DETERMINATIONS ON THE INTERNET AT [HTTP://WWW.DIR.CA.GOV/OPRL/DPREWAGEDETERMINATION.HTM](http://www.dir.ca.gov/OPRL/DPREWAGEDETERMINATION.HTM). HOLIDAY PROVISIONS FOR CURRENT OR SUPERSEDED DETERMINATIONS MAY BE OBTAINED BY CONTACTING THE OFFICE OF THE DIRECTOR – RESEARCH UNIT AT (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** IN ACCORDANCE WITH LABOR CODE SECTIONS 1773.1 AND 1773.9, CONTRACTORS SHALL MAKE TRAVEL AND/OR SUBSISTENCE PAYMENTS TO EACH WORKER TO EXECUTE THE WORK. YOU MAY OBTAIN THE TRAVEL AND/OR SUBSISTENCE PROVISIONS FOR THE CURRENT DETERMINATIONS ON THE INTERNET AT [HTTP://WWW.DIR.CA.GOV/OPRL/DPREWAGEDETERMINATION.HTM](http://www.dir.ca.gov/OPRL/DPREWAGEDETERMINATION.HTM). TRAVEL AND/OR SUBSISTENCE REQUIREMENTS FOR CURRENT OR SUPERSEDED DETERMINATIONS MAY BE OBTAINED BY CONTACTING THE OFFICE OF THE DIRECTOR – RESEARCH UNIT AT (415) 703-4774.



**CONSTRUCTION SPECIALIST**

ASPHALT IRONERS AND RAKERS  
CHAINSAW  
CONCRETE DIAMOND CHAINSAW  
LASER BEAM IN CONNECTION WITH LABORER'S WORK  
MASONRY AND PLASTER TENDER  
MECHANICAL PIPE LAYER-ALL TYPES REGARDLESS OF TYPE OR METHOD OF POWER  
CAST IN PLACE MANHOLE FORM SETTERS  
PRESSURE PIPELAYERS  
DAVIS TRENCHER – 300 OR SIMILAR TYPE (AND ALL SMALL TRENCHERS)  
STATE LICENSED BLASTERS AS DESIGNATED  
DIAMOND DRILLERS  
DIAMOND CORE DRILLER  
MULTIPLE UNIT DRILLS  
HIGH SCALERS (INCLUDING DRILLING OF SAME)  
HYDRAULIC DRILLS  
CERTIFIED WELDER

**GROUP 1** (FOR CONTRA COSTA COUNTY ONLY, USE GROUP 1 (G) FOR SOME OF THE FOLLOWING CLASSIFICATIONS)

ASPHALT SPREADER BOXES (ALL TYPES)  
BARKO, WACKER AND SIMILAR TYPE TAMPERS  
BUGGYMOBILE  
CAULKERS, BANDERS, PIPEWRAPPERS, CONDUIT LAYERS, PLASTIC PIPE LAYERS  
CERTIFIED ASBESTOS AND MOLD REMOVAL WORKER  
CERTIFIED HAZARDOUS WASTE WORKER (INCLUDING LEAD ABATEMENT)  
COMPACTORS OF ALL TYPES  
CONCRETE AND MAGNESITE MIXER AND ½ YARD  
CONCRETE PAN WORK  
CONCRETE SANDERS, CONCRETE SAW  
CRIBBERS AND/OR SHORING  
CUT GRANITE CURB SETTER  
DRI PAK-IT MACHINE  
FALLER, LOGLOADER AND BUCKER  
FORM RAISERS, SLIP FORMS  
GREEN CUTTERS  
HEADERBOARD MEN, HUBSETTERS, ALIGNERS BY ANY METHOD  
HIGH PRESSURE BLOW PIPE (1-1/2" OR OVER, 100 LBS. PRESSURE/OVER)  
HYDRO SEEDER AND SIMILAR TYPE  
JACKHAMMER OPERATORS  
JACKING OF PIPE OVER 12 INCHES  
JACKSON AND SIMILAR TYPE COMPACTORS  
KETTLEMEN, POTMEN, AND MEN APPLYING ASPHALT, LAY-KOLD, CREOSOTE, LIME, CAUSTIC AND SIMILAR TYPE MATERIALS (APPLYING MEANS APPLYING DIPPING, OR HANDLING OF SUCH MATERIALS)  
LAGGING, SHEETING, WHALING, BRACING, TRENCH-JACKING, LAGGING HAMMER  
MAGNESITE, EPOXY RESIN, FIBER GLASS AND MASTIC WORKERS (WET/DRY)  
NO JOINT PIPE AND STRIPPING OF SAME, INCLUDING REPAIR OF VOIDS  
PAVEMENT BREAKERS AND SPADERS, INCLUDING TOOL GRINDER  
PERMA CURBS  
PRECAST-MANHOLE SETTERS  
PIPELAYERS (INCLUDING GRADE CHECKING IN CONNECTION WITH PIPELAYING)  
PRESSURE PIPE TESTER  
POST HOLE DIGGERS-AIR, GAS, AND ELECTRIC POWER BROOM SWEEPERS  
POWER TAMPERS OF ALL TYPES, EXCEPT AS SHOWN IN GROUP 2  
RAM SET GUN AND STUD GUN  
RIPRAP-STONEPAVER AND ROCK-SLINGER, INCLUDING PLACING OF SACKED CONCRETE AND/OR SAND (WET OR DRY) AND GABIONS AND SIMILAR TYPE  
ROTARY SCARIFIER OR MULTIPLE HEAD CONCRETE CHIPPING SCARIFIER  
ROTO AND DITCH WITCH  
ROTOTILLER  
SAND BLASTERS, POTMEN, GUNMEN, AND NOZZLEMEN  
SIGNALING AND RIGGING  
SKILLED WRECKER (REMOVING AND SALVAGING OF SASH, WINDOWS, DOORS, PLUMBING AND ELECTRIC FIXTURES)  
TANK CLEANERS  
TREE CLIMBERS  
TRENCHLESS TECHNOLOGY LABORER- PIPE INSTALLATION, BURSTING, RELINING, OR SIMILAR  
TRENCHLESS LABORER'S WORK, CAMERA CONTROLLER, CCTV  
TURBO BLASTER  
VIBRA-SCREED-BULL FLOAT IN CONNECTION WITH LABORER'S WORK  
VIBRATORS

**GROUP 1 (A)**

ALL WORK OF LOADING, PLACING AND BLASTING OF ALL POWDER & EXPLOSIVES OF WHATEVER TYPE, REGARDLESS OF METHOD USED FOR LOADING AND PLACING  
JOY DRILL MODEL TWM-2A  
GARDENER-DENVER MODEL DH 143 AND SIMILAR TYPE DRILLS  
TRACK DRILLERS  
JACK LEG DRILLERS  
WAGON DRILLERS  
MECHANICAL DRILLERS-ALL TYPES REGARDLESS OF TYPE OR METHOD OF POWER  
BLASTERS AND POWDERMAN  
TREE TOPPER  
BIT GRINDER

**GROUP 1 (B)** -- SEE GROUP 1 RATES

SEWER CLEANERS (ANY WORKMEN WHO HANDLE OR COME IN CONTACT WITH RAW SEWAGE IN SMALL DIAMETER SEWERS) SHALL RECEIVE \$4.00 PER DAY ABOVE GROUP 1 WAGE RATES. THOSE WHO WORK INSIDE RECENTLY ACTIVE, LARGE DIAMETER SEWERS, AND ALL RECENTLY ACTIVE SEWER MANHOLES SHALL RECEIVE \$5.00 PER DAY ABOVE GROUP 1 WAGE RATES.

**GROUP 1 (C)**

BURNING AND WELDING IN CONNECTION WITH LABORER'S WORK  
SYNTHETIC THERMOPLASTICS AND SIMILAR TYPE WELDING

**GROUP 1 (D)**

SEE FOOTNOTE A ON PAGE 49

**GROUP 1 (E)**

WORK ON AND/OR IN BELL HOLE FOOTINGS AND SHAFTS THEREOF, AND WORK ON AND IN DEEP FOOTINGS (DEEP FOOTINGS IS A HOLE 15 FEET OR MORE IN DEPTH)  
SHAFT IS AN EXCAVATION OVER FIFTEEN (15) FEET DEEP OF ANY TYPE

**GROUP 1 (G) APPLIES ONLY TO WORK IN CONTRA COSTA COUNTY**

PIPELAYERS (INCLUDING GRADE CHECKING IN CONNECTION WITH PIPELAYING), CAULKERS, BANDERS, PIPEWRAPPERS, CONDUIT LAYERS, PLASTIC PIPE LAYER, PRESSURE PIPE TESTER, NO JOINT PIPE AND STRIPPING OF SAME, INCLUDING REPAIR OF VOIDS, PRECAST MANHOLE SETTERS, CAST IN PLACE MANHOLE FORM SETTERS IN CONTRA COSTA COUNTY ONLY

**GROUP 1 (H)**

SEE FOOTNOTE A ON PAGE 49

**GROUP 2**

ASPHALT SHOVELERS  
CEMENT DUMPERS AND HANDLING DRY CEMENT OR GYPSUM  
CHOKE-SETTER AND RIGGER (CLEARING WORK)  
CONCRETE BUCKET DUMPER AND CHUTEMAN  
CONCRETE CHIPPING AND GRINDING  
CONCRETE LABORERS (WET OR DRY)  
DRILLERS HELPER, CHUCK TENDER, NIPPER (ONE CHUCKTENDER ON SINGLE MACHINE OPERATION WITH MINIMUM OF ONE CHUCKTENDER FOR EACH TWO MACHINES ON MULTIPLE MACHINE OPERATION. JACKHAMMERS IN NO WAY INVOLVED IN THIS ITEM.)  
GUINEA CHASER (STAKEMAN), GROUT CROW  
HIGH PRESSURE NOZZLEMAN, ADDUCTORS  
HYDRAULIC MONITOR (OVER 100 LBS. PRESSURE)  
LOADING AND UNLOADING, CARRYING AND HANDLING OF ALL RODS AND MATERIALS FOR USE IN REINFORCING CONCRETE CONSTRUCTION  
PITTSBURGH CHIPPER, AND SIMILAR TYPE BRUSH SHREDDERS  
SEMI-SKILLED WRECKER (SALVAGING OF OTHER BUILDING MATERIALS) -- SEE ALSO SKILLED WRECKER (GROUP 1)  
SLOPER  
SINGLEFOOT, HAND HELD, PNEUMATIC TAMPER  
ALL PNEUMATIC, AIR, GAS AND ELECTRIC TOOLS NOT LISTED IN GROUPS 1 THROUGH 1 (F)  
JACKING OF PIPE-UNDER 12 INCHES

**GROUP 3**

CONSTRUCTION LABORERS INCLUDING BRIDGE LABORERS, GENERAL LABORERS AND CLEANUP LABORERS  
DEMOLITION WORKER  
DUMPMAN, LOAD SPOTTER  
FLAGPERSON/PEDESTRIAN MONITOR  
FIRE WATCHER  
FENCE ERECTORS, INCLUDING TEMPORARY FENCING  
GUARDRAIL ERECTORS  
GARDENER, HORTICULTURAL AND LANDSCAPE LABORERS (SEE GROUP 4, FOR LANDSCAPE MAINTENANCE ON NEW CONSTRUCTION DURING PLANT ESTABLISHMENT PERIOD)  
JETTING  
LIMBERS, BRUSH LOADERS, AND PILERS  
PAVEMENT MARKERS (BUTTON SETTERS)  
PAVERS/INTERLOCKING PAVERS (ALL TYPES) AND INTERLOCKING PAVER MACHINES  
MAINTENANCE, REPAIR TRACKMEN AND ROAD BEDS  
STREETCAR AND RAILROAD CONSTRUCTION TRACK LABORERS  
TEMPORARY AIR AND WATER LINES, VICTAULIC OR SIMILAR  
TOOL ROOM ATTENDANT (JOBSITE ONLY)  
TREE REMOVAL  
WHEELBARROW, INCLUDING POWER DRIVEN

**GROUP 3 (A)** -- SEE GROUP 3 RATES

COMPOSITE CREW PERSON (OPERATION OF VEHICLES, WHEN IN CONJUNCTION WITH LABORER'S DUTIES)

**GROUP 4**

ALL FINAL CLEANUP OF DEBRIS, GROUNDS AND BUILDINGS NEAR THE COMPLETION OF THE PROJECT INCLUDING BUT NOT LIMITED TO STREET CLEANERS (NOT APPLICABLE TO ENGINEERING OR HEAVY HIGHWAY PROJECTS)  
CLEANING AND WASHING WINDOWS (NEW CONSTRUCTION ONLY), SERVICE LANDSCAPE LABORERS (SUCH AS GARDENER, HORTICULTURE, MOWING, TRIMMING, REPLANTING, WATERING DURING PLANT ESTABLISHMENT PERIOD) ON NEW CONSTRUCTION  
BRICK CLEANERS (JOB SITE ONLY)  
MATERIAL CLEANERS (JOB SITE ONLY)

**NOTE:** AN ADDITIONAL DETERMINATION FOR LANDSCAPE MAINTENANCE WORK AFTER THE PLANT ESTABLISHMENT PERIOD OR WARRANTY PERIOD IS PUBLISHED ON PAGE 57 OF THESE GENERAL DETERMINATIONS.

**GROUP 6**

STRUCTURAL NOZZLEMAN

**GROUP 6 (A)**

NOZZLEMAN (INCLUDING GUNMAN, POTMAN)  
RODMAN  
GROUNDMAN

**GROUP 6 (B)** -- SEE GROUP 4 RATES

GUNITE TRAINEE (ONE GUNITE LABORER SHALL BE ALLOWED FOR EACH THREE (3) JOURNEYMAN (GROUP 6, 6A, 6C, OR GENERAL LABORER) ON A CREW. IN THE ABSENCE OF THE JOURNEYMAN, THE GUNITE TRAINEE RECEIVES THE JOURNEYMAN SCALE.).  
NOTE: THIS RATIO APPLIES ONLY TO WORK ON THE SAME JOB SITE.

**GROUP 6 (C)**

REBOUNDMAN

**GROUP 6 (D)**

ALIGNER OF WIRE WINDING MACHINE IN CONNECTION WITH GUNTING OR SHOT CRETE

**GROUP 6 (E)**

ALIGNER HELPER OF WIRE WINDING MACHINE IN CONNECTION WITH GUNTING OR SHOT CRETE

**GROUP 7**

ENTRY LEVEL LANDSCAPE LABORER (RATIO FOR ENTRY LEVEL IS ONE IN THREE. AT LEAST ONE SECOND PERIOD ENTRY LEVEL AND AT LEAST ONE THIRD PERIOD ENTRY LEVEL MUST BE EMPLOYED BEFORE EMPLOYING ANOTHER FIRST PERIOD TRAINEE).  
NOTE: THIS RATIO APPLIES ONLY TO WORK ON THE SAME JOB SITE.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1  
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: #LABORER AND RELATED CLASSIFICATIONS (Special Single and Second Shift)**

**DETERMINATION:** NC-23-102-1-2020-2A

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director-Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Mariposa, Marin, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

Classification <sup>a</sup> (Journey person)	Basic Hourly Rate <sup>f</sup>	Employer Payments					Straight-Time		Overtime Hourly Rate		
		Health and Welfare	Pension	Vacation and Holiday	Training	Other Payments	Hours	Total Hourly Rate	Daily 1 1/2X	Saturday <sup>b</sup> 1 1/2X	Sunday/ Holiday 2X
AREA 1 <sup>c</sup>											
Construction Specialist	36.50	9.00	12.96	3.05	0.50	0.28	8	62.29	80.54	80.54	98.79
Group 1; Group 1(B) <sup>e</sup>	35.80	9.00	12.96	3.05	0.50	0.28	8	61.59	79.49	79.49	97.39
Group 1 (A)	36.02	9.00	12.96	3.05	0.50	0.28	8	61.81	79.82	79.82	97.83
Group 1 (C)	35.85	9.00	12.96	3.05	0.50	0.28	8	61.64	79.57	79.57	97.49
Group 1 (E)	36.35	9.00	12.96	3.05	0.50	0.28	8	62.14	80.32	80.32	98.49
Group 1 (G)	36.00	9.00	12.96	3.05	0.50	0.28	8	61.79	79.79	79.79	97.79
Group 2	35.65	9.00	12.96	3.05	0.50	0.28	8	61.44	79.27	79.27	97.09
Group 3; Group 3(A)	35.55	9.00	12.96	3.05	0.50	0.28	8	61.34	79.12	79.12	96.89
Group 4; Group 6(B)	29.24	9.00	12.96	3.05	0.50	0.28	8	55.03	69.65 <sup>d</sup>	69.65 <sup>d</sup>	84.27 <sup>d</sup>
Group 6	36.76	9.00	12.96	3.05	0.50	0.28	8	62.55	80.93	80.93	99.31
Group 6 (A)	36.26	9.00	12.96	3.05	0.50	0.28	8	62.05	80.18	80.18	98.31
Group 6 (C)	35.67	9.00	12.96	3.05	0.50	0.28	8	61.46	79.30	79.30	97.13
Group 6 (D)	36.38	9.00	12.96	3.05	0.50	0.28	8	62.17	80.36	80.36	98.55
Group 6 (E)	35.40	9.00	12.96	3.05	0.50	0.28	8	61.19	78.89	78.89	96.59
Group 7 – Stage 1 (1 <sup>st</sup> 6 months)	25.79	9.00	12.96	3.05	0.50	0.28	8	51.58	64.47	64.47	77.37
Stage 2 (2 <sup>nd</sup> 6 months)	29.04	9.00	12.96	3.05	0.50	0.28	8	54.83	69.35	69.35	83.87
Stage 3 (3 <sup>rd</sup> 6 months)	32.30	9.00	12.96	3.05	0.50	0.28	8	58.09	74.23	74.23	90.39
AREA 2 <sup>c</sup>											
Construction Specialist	35.50	9.00	12.96	3.05	0.50	0.28	8	61.29	79.04	79.04	96.79
Group 1; Group 1(B) <sup>e</sup>	34.80	9.00	12.96	3.05	0.50	0.28	8	60.59	77.99	77.99	95.39
Group 1 (A)	35.02	9.00	12.96	3.05	0.50	0.28	8	60.81	78.32	78.32	95.83
Group 1 (C)	34.85	9.00	12.96	3.05	0.50	0.28	8	60.64	78.07	78.07	95.49
Group 1 (E)	35.35	9.00	12.96	3.05	0.50	0.28	8	61.14	78.82	78.82	96.49
Group 2	34.65	9.00	12.96	3.05	0.50	0.28	8	60.44	77.77	77.77	95.09
Group 3; Group 3(A)	34.55	9.00	12.96	3.05	0.50	0.28	8	60.34	77.62	77.62	94.89
Group 4; Group 6(B)	28.24	9.00	12.96	3.05	0.50	0.28	8	54.03	68.15 <sup>d</sup>	68.15 <sup>d</sup>	82.27 <sup>d</sup>
Group 6	35.76	9.00	12.96	3.05	0.50	0.28	8	61.55	79.43	79.43	97.31
Group 6 (A)	35.26	9.00	12.96	3.05	0.50	0.28	8	61.05	78.68	78.68	96.31
Group 6 (C)	34.67	9.00	12.96	3.05	0.50	0.28	8	60.46	77.80	77.80	95.13
Group 6 (D)	35.38	9.00	12.96	3.05	0.50	0.28	8	61.17	78.86	78.86	96.55
Group 6 (E)	34.40	9.00	12.96	3.05	0.50	0.28	8	60.19	77.39	77.39	94.59
Group 7 – Stage 1 (1 <sup>st</sup> 6 months)	25.09	9.00	12.96	3.05	0.50	0.28	8	50.88	63.42	63.42	75.97
Stage 2 (2 <sup>nd</sup> 6 months)	28.24	9.00	12.96	3.05	0.50	0.28	8	54.03	68.15	68.15	82.27
Stage 3 (3 <sup>rd</sup> 6 months)	31.40	9.00	12.96	3.05	0.50	0.28	8	57.19	72.88	72.88	88.59

PLEASE GO TO PAGE 50 FOR CLASSIFICATIONS WITHIN EACH GROUP

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

- a GROUP 1(D) - MAINTENANCE OR REPAIR TRACKMEN AND ROAD BEDS AND ALL EMPLOYEES PERFORMING WORK COVERED BY THIS CLASSIFICATION SHALL RECEIVE \$0.25 PER HOUR ABOVE THEIR REGULAR RATE FOR ALL WORK PERFORMED ON UNDERGROUND STRUCTURES NOT SPECIFICALLY COVERED HEREIN. THIS SHALL NOT APPLY TO WORK BELOW GROUND LEVEL IN OPEN CUT. THIS SHALL APPLY TO CUT AND COVER WORK OF SUBWAY CONSTRUCTION AFTER TEMPORARY COVER HAS BEEN PLACED.
- GROUP 1(H) - ALL LABORERS WORKING OFF OR WITH OR FROM BOS'N CHAIRS, SWINGING SCAFFOLDS, BELTS RECEIVE \$0.50 PER HOUR ABOVE THEIR APPLICABLE WAGE RATE. THIS SHALL NOT APPLY TO LABORERS ENTITLED TO RECEIVE THE WAGE RATE SET FORTH IN GROUP 1(A).
- b SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORK WEEK DUE TO INCLEMENT WEATHER, MAJOR MECHANICAL BREAKDOWN OR LACK OF MATERIALS BEYOND THE CONTROL OF THE EMPLOYER.
- c **AREA 1** - ALAMEDA, CONTRA COSTA, MARIN, SAN FRANCISCO, SAN MATEO, AND SANTA CLARA COUNTIES.  
**AREA 2** - ALPINE, AMADOR, BUTTE, CALAVERAS, COLUSA, DEL NORTE, EL DORADO, FRESNO, GLENN, HUMBOLDT, KINGS, LAKE, LASSEN, MADERA, MARIPOSA, MENDOCINO, MERCED, MODOC, MONTEREY, NAPA, NEVADA, PLACER, PLUMAS, SACRAMENTO, SAN BENITO, SAN JOAQUIN, SANTA CRUZ, SHASTA, SIERRA, SISKIYOU, SOLANO, SONOMA, STANISLAUS, SUTTER, TEHAMA, TRINITY, TULARE, TUOLUMNE, YOLO AND YUBA COUNTIES.
- d SERVICE LANDSCAPE LABORER ON NEW CONSTRUCTION MAY WORK ANY FIVE (5) DAYS WITHIN A WEEK.
- e GROUP 1(B) RECEIVES AN ADDITIONAL AMOUNT EACH DAY. SEE PAGE 50 FOR DETAILS.
- f ZONE PAY AT THREE DOLLARS (\$3.00) PER HOUR, FACTORED AT THE APPLICABLE OVERTIME MULTIPLE, WILL BE ADDED TO THE BASE RATE FOR WORK PERFORMED OUTSIDE THE FREE ZONE DESCRIBED BY THE BOUNDARIES ALONG TOWNSHIP AND RANGE LINES. PLEASE SEE TRAVEL AND SUBSISTENCE PROVISIONS FOR MAP DESCRIPTION AND EXCEPTIONS.

**RECOGNIZED HOLIDAYS:** HOLIDAYS UPON WHICH THE GENERAL PREVAILING HOURLY WAGE RATE FOR HOLIDAY WORK SHALL BE PAID, SHALL BE ALL HOLIDAYS IN THE COLLECTIVE BARGAINING AGREEMENT, APPLICABLE TO THE PARTICULAR CRAFT, CLASSIFICATION, OR TYPE OF WORKER EMPLOYED ON THE PROJECT, WHICH IS ON FILE WITH THE DIRECTOR OF INDUSTRIAL RELATIONS. IF THE PREVAILING RATE IS NOT BASED ON A COLLECTIVELY BARGAINED RATE, THE HOLIDAYS UPON WHICH THE PREVAILING RATE SHALL BE PAID SHALL BE AS PROVIDED IN SECTION 6700 OF THE GOVERNMENT CODE. YOU MAY OBTAIN THE HOLIDAY PROVISIONS FOR THE CURRENT DETERMINATIONS ON THE INTERNET AT [HTTP://WWW.DIR.CA.GOV/OPRL/DPREWAGEDETERMINATION.HTM](http://WWW.DIR.CA.GOV/OPRL/DPREWAGEDETERMINATION.HTM). HOLIDAY PROVISIONS FOR CURRENT OR SUPERSEDED DETERMINATIONS MAY BE OBTAINED BY CONTACTING THE OFFICE OF THE DIRECTOR – RESEARCH UNIT AT (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** IN ACCORDANCE WITH LABOR CODE SECTIONS 1773.1 AND 1773.9, CONTRACTORS SHALL MAKE TRAVEL AND/OR SUBSISTENCE PAYMENTS TO EACH WORKER TO EXECUTE THE WORK. YOU MAY OBTAIN THE TRAVEL AND/OR SUBSISTENCE PROVISIONS FOR THE CURRENT DETERMINATIONS ON THE INTERNET AT [HTTP://WWW.DIR.CA.GOV/OPRL/DPREWAGEDETERMINATION.HTM](http://WWW.DIR.CA.GOV/OPRL/DPREWAGEDETERMINATION.HTM). TRAVEL AND/OR SUBSISTENCE REQUIREMENTS FOR CURRENT OR SUPERSEDED DETERMINATIONS MAY BE OBTAINED BY CONTACTING THE OFFICE OF THE DIRECTOR – RESEARCH UNIT AT (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: #TUNNEL WORKER (LABORER)**

**DETERMINATION:** NC-23-102-11-2020-1

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

Classification (Journey person)	Basic Hourly Rate	Employer Payments					Hours <sup>b</sup>	Straight-Time		Overtime Hourly Rate		
		Health and Welfare	Pension	Vacation/ Holiday <sup>a</sup>	Training	Other Payments		Total Hourly Rate		Daily 1 1/2X	Saturday <sup>c</sup> 1 1/2X	Sunday and Holiday
Diamond driller, groundman, gunite or shotcrete nozzleman	\$40.38	9.00	12.96	3.05	0.96	0.28	8	66.63		86.82	86.82	107.01
Rodman, shaft work and raise (below actual or excavated ground level)	\$40.15	9.00	12.96	3.05	0.96	0.28	8	66.40		86.48	86.48	106.55
Bit grinder, blaster, driller, powderman-heading, cherry pickerman-where car is lifted, concrete finisher in tunnel, concrete/screed man, grout pumpman and potman, gunite and shotcrete gunman and potman, headerman, high pressure nozzleman, miner-tunnel, including top and bottom man on shaft and raise work, nipper, nozzleman on slick line, sandblaster-potman (work assignment interchangeable)	\$39.90	9.00	12.96	3.05	0.96	0.28	8	66.15		86.10	86.10	106.05
Steel form raiser and setter, timberman, retimberman (wood or steel or substitute materials), tugger, cabletender, certified welder, chucktender, powderman-primer house	\$39.90	9.00	12.96	3.05	0.96	0.28	8	66.15		86.10	86.10	106.05
Vibratorman, pavement breaker, bull gang-mucker, trackman, concrete crew-including rodding and spreading	\$39.45	9.00	12.96	3.05	0.96	0.28	8	65.70		85.43	85.43	105.15
Dumpman (any method), grout crew, reboundman, swamper/brakeman, watchman	\$38.91	9.00	12.96	3.05	0.96	0.28	8	65.16		84.62	84.62	104.07

When designated by an employer, state licensed blaster receives \$1.00 per hour above miner's rate.

**Note:** Rates for tunnel workers working in compressed air as well as their support classifications are available by request. Please contact the Office of the Director - Research Unit at (415) 703-4774.

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> Includes an amount for supplemental dues.

<sup>b</sup> Saturdays in the same work week may be worked at straight-time if job is shut down during the normal workweek due to inclement weather. Excludes Alameda, Contra Costa, and San Francisco Counties.

<sup>c</sup> All work performed on Saturdays, Sundays and Holidays shall be paid for at double (2x) the regular time hourly rate, except maintenance work, in the counties of Alameda, Contra Costa, and San Francisco.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: #TUNNEL WORKER (LABORER) (Special Single and Second Shift)**

**DETERMINATION:** NC-23-102-11-2020-1A

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

Classification (Journey person)	Basic Hourly Rate	Health and Welfare	Employer Payments				Other Payments	Straight-Time Hours <sup>b</sup>	Total Hourly Rate	Overtime Hourly Rate		
			Pension	Vacation/ Holiday <sup>a</sup>	Training					Daily 1 1/2X	Saturday <sup>c</sup> 1 1/2X	Sunday and Holiday
Diamond driller, groundman, gunite or shotcrete nozzleman	\$43.38	9.00	12.96	3.05	0.96	0.28	8	69.63	91.32	91.32	113.01	
Rodman, shaft work and raise (below actual or excavated ground level)	\$43.15	9.00	12.96	3.05	0.96	0.28	8	69.40	90.98	90.98	112.55	
Bit grinder, blaster, driller, powderman-heading, cherry pickerman-where car is lifted, concrete finisher in tunnel, concrete/screed man, grout pumpman and potman, gunite and shotcrete gunman and potman, headerman, high pressure nozzleman, miner-tunnel, including top and bottom man on shaft and raise work, nipper, nozzleman on slick line, sandblaster-potman (work assignment interchangeable)	\$42.90	9.00	12.96	3.05	0.96	0.28	8	69.15	90.60	90.60	112.05	
Steel form raiser and setter, timberman, retimberman (wood or steel or substitute materials), tugger, cabletender, certified welder, chucktender, powderman-primer house	\$42.90	9.00	12.96	3.05	0.96	0.28	8	69.15	90.60	90.60	112.05	
Vibratorman, pavement breaker, bull gang-mucker, trackman, concrete crew-including rodding and spreading	\$42.45	9.00	12.96	3.05	0.96	0.28	8	68.70	89.93	89.93	111.15	
Dumpman (any method), grout crew, reboundman, swamper/brakeman, watchman	\$41.91	9.00	12.96	3.05	0.96	0.28	8	68.16	89.12	89.12	110.07	

When designated by an employer, state licensed blaster receives \$1.00 per hour above miner's rate.

**Note:** Rates for tunnel workers working in compressed air as well as their support classifications are available by request. Please contact the Office of the Director - Research Unit at (415) 703-4774.

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @

<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> Includes an amount for supplemental dues.

<sup>b</sup> Saturdays in the same work week may be worked at straight-time if job is shut down during the normal workweek due to inclement weather. Excludes Alameda, Contra Costa, and San Francisco Counties.

<sup>c</sup> All work performed on Saturdays, Sundays and Holidays shall be paid for at double (2x) the regular time hourly rate, except maintenance work, in the counties of Alameda, Contra Costa, and San Francisco.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: # PARKING AND HIGHWAY IMPROVEMENT PAINTER (PAINTER) <sup>a</sup>**

**DETERMINATION:** NC-200-X-17-2020-1

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit at (415) 703-4774 for new rates after 10 days from the expiration date, if no subsequent determination is issued.

**LOCALITY:** All localities within San Joaquin, Tuolumne, and Yolo counties.

CLASSIFICATION	Employer Payments						Straight-Time		Overtime Hourly Rate		
	Basic Hourly Rate	Health and Welfare	Pension	Vacation/ Holiday <sup>c</sup>	Training	Other	Hours	Total Hourly Rate	1 1/2X	2X	Holiday 2X
Striper; Layout and application of painted traffic stripes; hot thermo plastic; tape traffic stripes	<sup>b</sup> 38.48	10.45	6.33	-	0.10	-	8	55.36	<sup>d</sup> 74.60	93.84	93.84
Parking Lots, Gamecourts, Playgrounds	<sup>b</sup> 32.71	10.45	6.33	-	0.10	-	8	49.59	<sup>d</sup> 65.945	82.30	82.30
Protective Coating, Resurfacing, Pavement Sealing, Including Repair When Done in Conjunction With Pavement Sealing	<sup>b</sup> 33.09	10.45	6.33	-	0.10	-	8	49.97	<sup>d</sup> 66.515	83.06	83.06

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at

<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

<sup>a</sup> The minimum rate of pay for traffic control work associated with parking and highway improvement projects is that of the Painter classifications for the craft of Parking and Highway Improvement Painter (Painter) in San Joaquin, Tuolumne, and Yolo Counties.

<sup>b</sup> Includes an amount withheld for Dues Check-Off.

<sup>c</sup> Included in Basic Hourly Rate (\$2.24). Rate applies to the first 9 years of employment only; \$2.63 per hour worked for 10 years or more.

<sup>d</sup> Rate applies to first 4 overtime hours in any one day and for work in excess of 40 hours in any one designated work week. All other overtime is paid at the double time rate.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: SLURRY SEAL WORKER (LABORER)**

**DETERMINATION:** NC-23-102-1B-2020-1

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** March 31, 2021\* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit at (415) 703-4774 for the new rates after ten days after the expiration date if no subsequent determination is issued.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo and Yuba Counties.

Classification (Journey person)	Basic Hourly Rate <sup>b</sup>	Employer Payments				Straight-Time		Overtime Hourly Rates		
		Health and Welfare	Pension	Vacation/ Holiday	Training	Hours	Total Hourly Rate	Daily 1 1/2X	Saturday <sup>a</sup> 1 1/2X	Sunday/ Holiday 2X
Mixer Operator	\$39.02	9.00	10.00	3.05	0.10	8	\$61.17	\$80.68	\$80.68	\$100.19
Shuttle/Line Driver	33.02	9.00	10.00	3.05	0.10	8	55.17	71.68	71.68	88.19
Squeegee/Sealer	31.52	9.00	10.00	3.05	0.10	8	53.67	69.43	69.43	85.19
Utility-Maintenance Man	30.52	9.00	10.00	3.05	0.10	8	52.67	67.93	67.93	83.19

<sup>a</sup> Saturdays in the same work week may be worked at straight-time if job is shut down during the normal work week due to inclement weather, major mechanical breakdown or lack of materials beyond the control of the employer.

<sup>b</sup> Zone Pay at three dollars (\$3.00) per hour, factored at the applicable overtime multiplier, will be added to the base rate for work performed outside the Free Zone described by the boundaries along township and range lines. Please see travel and subsistence provision for map description and exceptions.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: ASBESTOS REMOVAL WORKER (LABORER)**

**DETERMINATION:** NC-102-67-1-2020-2

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

Classification (Journey person)	<u>Employer Payments</u>						<u>Straight-Time</u>		<u>Overtime Hourly Rate</u>	
	Basic Hourly Rate	Health and Welfare	Pension	Vacation/ Holiday <sup>a</sup>	Training	Other Payments	Hours	Total Hourly Rate	1-1/2X <sup>b</sup>	Holiday <sup>c</sup> 2X
Asbestos Removal Specialist II	29.54	5.84	8.70	3.00	0.46	0.18	8	47.72	62.49	77.26
Asbestos Removal Specialist I	28.16	5.84	3.21	3.00	0.46	0.18	8	40.85	54.93	69.01
Asbestos Removal Worker	25.05	5.84	2.70	3.00	0.46	0.18	8	37.23	49.755	62.28

**DETERMINATION:** NC-102-67-1-2020-2A

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

Lead Removal Worker <sup>d</sup>	33.07	9.50	12.40	2.75	0.65	0.22	8	58.59	75.125	91.66
Lead Removal Worker <sup>e</sup>	32.07	9.50	12.40	2.75	0.65	0.22	8	57.59	73.625	89.66

<sup>a</sup> Includes an amount for Supplemental Dues.

<sup>b</sup> Rate applies to the first 4 overtime hours in any workday or 40 hours in a workweek, and for the first 8 hours worked on the 7<sup>th</sup> consecutive day of work in a workweek. All work on Saturdays and Sundays shall be paid at the rate of one and one-half (1 1/2) times the regular rate of pay, unless the Saturday and Sunday work is part of an established workweek.

<sup>c</sup> Rate applies to Holidays and to all hours worked in excess of 12 hours in any workday and for all hours worked in excess of 8 hours on the 7<sup>th</sup> consecutive day of work in a workweek.

<sup>d</sup> Rate applies to all localities within Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo and Santa Clara Counties.

<sup>e</sup> Rate applies to all localities within Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Mariposa, Mendocino, Merced, Modoc, Monterey, Nevada, Placer, Plumas, Sacramento, San Benito, San Joaquin, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo and Yuba Counties.

(Recognized Holidays and Subsistence Payment footnotes listed on page 52C)

**NOTE:** Asbestos Removal Workers must be trained and the work conducted according to the Code of Federal Regulations 29 CFR 1926.58, the California Labor Code 6501.5 and the California Code of Regulations, Title 8, Section 5208. Contractors must be certified by the Contractors' State License Board and registered with the Division of Occupational Safety and Health (DOSH). For further information, contact the Asbestos Contractors Abatement Registration Unit, DOSH at (916) 574-2993.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.



GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
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FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: # CEMENT MASON**

**DETERMINATION:** NC-23-203-1-2020-1

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

CLASSIFICATION (JOURNEYPERSON)	Basic Hourly Rate	Employer Payments					Straight-Time		Overtime Hourly Rate		
		Health and Welfare	Pension	Vacation and Holiday	Training	Other	Hours <sup>b</sup>	Total Hourly Rate	Daily 1 1/2X	Saturday <sup>c</sup> 1 1/2X	Sunday and Holiday
Cement Mason	\$39.20	8.60	11.41	5.95 <sup>a</sup>	0.60	0.10	8	65.86	85.46	85.46 <sup>d</sup>	105.06
Mastic Magnesite Gypsum, Epoxy, Polyester, Resin and all composition masons, swing or slip form scaffolds	\$40.20	8.60	11.41	5.95 <sup>a</sup>	0.60	0.10	8	66.86	86.96	86.96 <sup>d</sup>	107.06

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @

<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

<sup>a</sup> Includes an amount for supplemental dues.

<sup>b</sup> Where multiple shifts are worked, the day shift shall work eight (8) hours and for such work they shall be paid the regular straight time rate for eight (8) hours; the second (2<sup>nd</sup>) shift shall work seven and one-half (7 ½) hours, and for such work they shall be paid the regular straight time rate for eight (8) hours; if a third (3<sup>rd</sup>) shift is worked, they shall work seven (7) hours and for such work they shall be paid eight (8) hours regular straight time pay. No multiple shift shall be started for less than five (5) consecutive days.

<sup>c</sup> Saturdays in the same work week may be worked at straight time if a job is shut down during the normal work week due to inclement weather or major mechanical breakdown (limited to curb and gutter machine, concrete pump, and concrete plant).

<sup>d</sup> Rate applies to the first 8 hours of work on Saturday. All other hours worked on Saturday are paid at the Sunday/Holiday rate.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: # CEMENT MASON (SPECIAL SINGLE SHIFT)**

**DETERMINATION:** NC-23-203-1A-2020-1

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

CLASSIFICATION (JOURNEYPERSON)	Basic Hourly Rate	Employer Payments					Straight-Time		Overtime Hourly Rate		
		Health and Welfare	Pension	Vacation and Holiday	Training	Other	Hours	Total Hourly Rate	Daily 1 1/2X	Saturday <sup>b</sup> 1 1/2X	Sunday and Holiday
Cement Mason	\$42.20	8.60	11.41	5.95 <sup>a</sup>	0.60	0.10	8	68.86	89.96	89.96 <sup>c</sup>	111.06
Mastic Magnesite Gypsum, Epoxy, Polyester, Resin and all composition masons, swing or slip form scaffolds	\$43.20	8.60	11.41	5.95 <sup>a</sup>	0.60	0.10	8	69.86	91.46	91.46 <sup>c</sup>	113.06

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @

<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

<sup>a</sup> Includes an amount for supplemental dues.

<sup>b</sup> Saturdays in the same work week may be worked at straight time if a job is shut down during the normal work week due to inclement weather or major mechanical breakdown (limited to curb and gutter machine, concrete pump, and concrete plant).

<sup>c</sup> Rate applies to the first 8 hours of work on Saturday. All other hours worked on Saturday are paid at the Sunday/Holiday rate.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: #BUILDING/CONSTRUCTION INSPECTOR AND FIELD SOILS AND MATERIAL TESTER**

**DETERMINATION:** NC-63-3-9-2020-2

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit at (415) 703-4774 for the new rates after ten days after the expiration date if no subsequent determination is issued.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo and Yuba counties.

CLASSIFICATION (JOURNEYPERSON)	Basic Hourly Rate	Health and Welfare <sup>a</sup>	Employer Payments				Straight-Time		Overtime Hourly Rate		
			Pension	Vacation and Holiday	Training	Other Payment	Hours	Total Hourly Rate	Daily <sup>b</sup> 1 1/2X	Saturday <sup>b</sup> 1 1/2X	Sunday/ Holiday 2X
Group 1	\$52.05	13.88	10.82	6.62	1.13	0.24	8	84.74	110.765	110.765	136.79
Group 2	50.05	13.88	10.82	6.62	1.13	0.24	8	82.74	107.765	107.765	132.79
Group 3	42.84	13.88	10.82	6.62	1.13	0.24	8	75.53	96.95	96.95	118.37
Group 4	36.87	13.88	10.82	6.62	1.13	0.24	8	69.56	87.995	87.995	106.43

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @

<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> Amount shall be paid for all hours worked up to 173 hours per month.

<sup>b</sup> Rate applies to the first 4 daily overtime hours, Monday through Friday, and the first 8 hours on Saturday. All other overtime is paid at the Sunday/Holiday overtime rate.

**CLASSIFICATIONS:**

<u>Group 1</u>	<u>Group 2</u>	<u>Group 3</u>	<u>Group 4</u>
ASNT Level II-III	AWS-CWI	Geotechnical Driller	ACI
DSA Masonry	ICC Certified Structural Inspector	Soils/Asphalt	Drillers Helper
DSA Shotcrete	NICET Level III	Earthwork Grading	ICC Fireproofing
Lead Inspector	Shear Wall/Floor System Inspector	Excavation and Backfill	NICET Level I
NICET Level IV	Building/Construction Inspector	NICET Level II	Proofload Testing
NDT Level Two			Torque Testing
			NACE
			NDT Level One

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at

<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: #BUILDING/CONSTRUCTION INSPECTOR AND FIELD SOILS AND MATERIAL TESTER (SECOND SHIFT)**

**DETERMINATION:** NC-63-3-9-2020-2

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit at (415) 703-4774 for the new rates after ten days after the expiration date if no subsequent determination is issued.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo and Yuba counties.

CLASSIFICATION (JOURNEYPERSON)	Basic Hourly Rate	Employer Payments					Straight-Time		Overtime Hourly Rate		
		Health and Welfare <sup>a</sup>	Pension	Vacation and Holiday	Training	Other Payment	Hours	Total Hourly Rate	Daily <sup>b</sup> 1 1/2X	Saturday <sup>b</sup> 1 1/2X	Sunday/ Holiday 2X
Group 1	\$58.56	13.88	10.82	6.62	1.13	0.24	8	91.25	120.53	120.53	149.81
Group 2	56.31	13.88	10.82	6.62	1.13	0.24	8	89.00	117.155	117.155	145.31
Group 3	48.20	13.88	10.82	6.62	1.13	0.24	8	80.89	104.99	104.99	129.09
Group 4	41.48	13.88	10.82	6.62	1.13	0.24	8	74.17	94.91	94.91	115.65

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @

<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> Amount shall be paid for all hours worked up to 173 hours per month.

<sup>b</sup> Rate applies to the first 4 daily overtime hours, Monday through Friday, and the first 8 hours on Saturday. All other overtime is paid at the Sunday/Holiday overtime rate.

**CLASSIFICATIONS:**

<u>Group 1</u>	<u>Group 2</u>	<u>Group 3</u>	<u>Group 4</u>
ASNT Level II-III	AWS-CWI	Geotechnical Driller	ACI
DSA Masonry	ICC Certified Structural Inspector	Soils/Asphalt	Drillers Helper
DSA Shotcrete	NICET Level III	Earthwork Grading	ICC Fireproofing
Lead Inspector	Shear Wall/Floor System Inspector	Excavation and Backfill	NICET Level I
NICET Level IV	Building/Construction Inspector	NICET Level II	Proofload Testing
NDT Level Two			Torque Testing
			NACE
			NDT Level One

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: TEAMSTER (APPLIES ONLY TO WORK ON THE CONSTRUCTION SITE)**

**DETERMINATION:** NC-23-261-1-2020-1

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All Localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

Classification <sup>g</sup> (Journey person)	Basic Hourly Rate	Employer Payments					Straight-Time		Overtime Hourly Rate		
		Health and Welfare	Pension	Vacation/ Holiday	Training	Other Payments	Hours	Total Hourly Rate	Daily 1 1/2X	Saturday <sup>b</sup> 1 1/2X	Sunday/ Holiday 2X
Group 1	\$33.95	\$19.19	\$7.35	\$2.30	\$0.90	<sup>a</sup> \$0.63	8	\$64.32	\$81.30	\$81.30	\$98.27
Group 2	34.25	19.19	7.35	2.30	0.90	<sup>a</sup> 0.63	8	64.62	81.75	81.75	98.87
Group 3	34.55	19.19	7.35	2.30	0.90	<sup>a</sup> 0.63	8	64.92	82.20	82.20	99.47
Group 4	34.90	19.19	7.35	2.30	0.90	<sup>a</sup> 0.63	8	65.27	82.72	82.72	100.17
Group 5	35.25	19.19	7.35	2.30	0.90	<sup>a</sup> 0.63	8	65.62	83.25	83.25	100.87
Group 6	USE DUMP TRUCK YARDAGE RATE										
Group 7	USE APPROPRIATE RATE FOR THE POWER UNIT OR THE EQUIPMENT UTILIZED										
Group 8 (Trainee) <sup>c</sup>											
<sup>d</sup> Step I – 1 <sup>st</sup> 1000 Hours											
<sup>e</sup> Step II – 2 <sup>nd</sup> 1000 Hours											
<sup>f</sup> Step III – 3 <sup>rd</sup> 1000 Hours											

<sup>a</sup> Supplemental Dues and Contract Administration.

<sup>b</sup> Saturday in the same work week may be worked at straight-time hourly rate if a job is shut down during the normal work week due to inclement weather or major mechanical breakdown, or lack of materials beyond the control of the Employer.

<sup>c</sup> An individual employer may employ one (1) trainee for every four (4) journey level Teamsters actively employed. Individual employers with less than four (4) journey level Teamsters may utilize one (1) trainee; thereafter, one (1) for every four (4) journey level Teamsters.

<sup>d</sup> Sixty-five percent (65%) of the Journey level wage for the type of equipment operated, plus full fringes without Vacation/Holiday.

<sup>e</sup> Seventy-five percent (75%) of the Journey level wage for the type of equipment operated, plus full fringes without Vacation/Holiday.

<sup>f</sup> Eighty-five percent (85%) of the Journey level wage for the type of equipment operated, plus full fringes without Vacation/Holiday.

<sup>g</sup> For classifications within each group, see page 56.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/PreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/PreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**DETERMINATION: NC-23-261-1-2020-1 and NC-23-261-1-2020-1A**

**CLASSIFICATIONS:**

**GROUP 1**

Dump Trucks under 6 yards  
Single Unit Flat Rack (2 axle unit)  
Nipper Truck (When Flat Rack Truck is used appropriate Flat Rack shall apply)  
Concrete pump truck (When Flat Rack Truck is used appropriate Flat Rack shall apply)  
Concrete pump machine  
Snow Buggy  
Steam Cleaning  
Bus or Manhaul Driver  
Escort or Pilot Car Driver  
Pickup Truck  
Teamster Oiler/Greaser/and or Serviceman  
Hook Tenders  
Team Drivers  
Warehouseman  
Tool Room Attendant (Refineries)  
Fork Lift and Lift Jitneys  
Warehouse Clerk/Parts Man  
Fuel and/or Grease Truck Driver or Fuelman  
Truck Repair Helper  
Fuel Island Attendant, or Combination Pit and/or Grease Rack and Fuel Island Attendant

**GROUP 2**

Dump Trucks 6 yards Under 8 yards  
Transit Mixers through 10 yards  
Water Trucks Under 7000 gals.  
Jetting Trucks Under 7000 gals.  
Single Unit flat rack (3 axle unit)  
Highbed Heavy Duty Transport  
Scissor Truck  
Rubber Tired Muck Car (not self-loaded)  
Rubber Tired Truck Jumbo  
Winch Truck and "A" Frame Drivers  
Combination Winch Truck With Hoist  
Road Oil Truck or Bootman  
Buggymobile  
Ross, Hyster and similar Straddle Carrier  
Small Rubber Tired Tractor  
Truck Dispatcher

**GROUP 3**

Dump Trucks 8 yards and including 24 yards  
Transit Mixers Over 10 yards  
Water Trucks 7000 gals and over  
Jetting Trucks 7000 gals and over  
Vacuum Trucks under 7500 gals  
Trucks Towing Tilt Bed or Flat Bed Pull Trailers  
Heavy Duty Transport Tiller Man  
Tire Repairman

**GROUP 3 (continued)**

Truck Mounted Self Propelled Street Sweeper with or without Self-Contained Refuse Bin and or Vacuum Unit  
Boom Truck - Hydro-Lift or Swedish Type Extension or Retracting Crane  
P.B. or Similar Type Self Loading Truck  
Combination Bootman and Road Oiler  
Dry Distribution Truck (A Bootman when employed on such equipment, shall receive the rate specified for the classification of Road Oil Trucks or Bootman)  
Ammonia Nitrate Distributor, Driver and Mixer  
Snow Go and/or Plow

**GROUP 4**

Dump Trucks over 25 yards and under 65 yards  
Vacuum Trucks 7500 gals and over.  
Truck Repairman  
Water Pulls - DW 10s, 20s, 21s and other similar equipment when pulling Aqua/pak or Water Tank Trailers  
Helicopter Pilots  
Lowbed Heavy Duty Transport (up to and including 7 axles)  
DW 10s, 20s, 21s and other similar Cat type, Terra Cobra, LeTourneau Pulls, Tournorocker, Euclid and similar type Equipment when pulling fuel and/or grease tank trailers or other miscellaneous trailers

**GROUP 5**

Dump Truck 65 yards and over  
Holland Hauler  
Lowbed Heavy Duty Transport (over 7 axles)

**GROUP 6** (Use dump truck yardage rate)

Articulated Dump Truck  
Bulk Cement Spreader (w/ or w/o Auger)  
Dumpcrete Truck  
Skid Truck (Debris Box)  
Dry Pre-Batch Concrete Mix Trucks  
Dumpster or Similar Type  
Slurry Truck

**GROUP 7** (Use appropriate Rate for the Power Unit or the Equipment Utilized)

Heater Planer  
Asphalt Burner  
Scarifier Burner  
Fire Guard  
Industrial Lift Truck (mechanical tailgate)  
Utility and Clean-up Truck  
Composite Crewman

**GROUP 8**

Trainee



GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: TEAMSTER (SPECIAL SINGLE SHIFT RATE)**  
**(APPLIES ONLY TO WORK ON THE CONSTRUCTION SITE)**

**DETERMINATION:** NC-23-261-1-2020-1A

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All Localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

Classification <sup>g</sup> (Journey person)	Basic Hourly Rate	Employer Payments					Straight-Time		Overtime Hourly Rate		
		Health and Welfare	Pension	Vacation/ Holiday	Training	Other Payments	Hours	Total Hourly Rate	Daily 1 1/2X	Saturday <sup>b</sup> 1 1/2X	Sunday/ Holiday 2X
Group 1	\$35.95	\$19.19	\$7.35	\$2.30	\$0.90	<sup>a</sup> \$0.63	8	\$66.32	\$84.30	\$84.30	\$102.27
Group 2	36.25	19.19	7.35	2.30	0.90	<sup>a</sup> 0.63	8	66.62	84.75	84.75	102.87
Group 3	36.55	19.19	7.35	2.30	0.90	<sup>a</sup> 0.63	8	66.92	85.20	85.20	103.47
Group 4	36.90	19.19	7.35	2.30	0.90	<sup>a</sup> 0.63	8	67.27	85.72	85.72	104.17
Group 5	37.25	19.19	7.35	2.30	0.90	<sup>a</sup> 0.63	8	67.62	86.25	86.25	104.87
Group 6	USE DUMP TRUCK YARDAGE RATE										
Group 7	USE APPROPRIATE RATE FOR THE POWER UNIT OR THE EQUIPMENT UTILIZED										
Group 8 (Trainee) <sup>c</sup>											
<sup>d</sup> Step I – 1 <sup>st</sup> 1000 Hours											
<sup>e</sup> Step II – 2 <sup>nd</sup> 1000 Hours											
<sup>f</sup> Step III – 3 <sup>rd</sup> 1000 Hours											

<sup>a</sup> Supplemental Dues and Contract Administration.

<sup>b</sup> Saturday in the same work week may be worked at straight-time hourly rate if a job is shut down during the normal work week due to inclement weather or major mechanical breakdown, or lack of materials beyond the control of the Employer.

<sup>c</sup> An individual employer may employ one (1) trainee for every four (4) journey level Teamsters actively employed. Individual employers with less than four (4) journey level Teamsters may utilize one (1) trainee; thereafter, one (1) for every four (4) journey level Teamsters.

<sup>d</sup> Sixty-five percent (65%) of the Journey level wage for the type of equipment operated, plus full fringes without Vacation/Holiday.

<sup>e</sup> Seventy-five percent (75%) of the Journey level wage for the type of equipment operated, plus full fringes without Vacation/Holiday.

<sup>f</sup> Eighty-five percent (85%) of the Journey level wage for the type of equipment operated, plus full fringes without Vacation/Holiday.

<sup>g</sup> For classifications within each group, see page 56.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/PreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/PreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

**CRAFT: LANDSCAPE MAINTENANCE LABORER**

(APPLIES ONLY TO ROUTINE LANDSCAPE MAINTENANCE WORK NOT NEW LANDSCAPE CONSTRUCTION)<sup>1</sup>

**DETERMINATION:** NC-LML-2020-1

**ISSUE DATE:** February 22, 2020

**EXPIRATION DATE OF DETERMINATION:** March 31, 2020\* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit (415) 703-4774 for the new rates after 10 days from the expiration date, if no subsequent determination is issued.

LOCALITY:	Employer Payments						Straight -Time		Overtime
	Basic Hourly Rate	Health and Welfare	Pension	Vacation	Holiday	Training	Hours	Total Hourly Rate	1 1/2x
Alameda.....	13.00	0.43	-	<sup>a</sup> 0.14	0.24	-	8	<sup>b</sup> 13.81	<sup>b</sup> 20.31
Alpine, El Dorado.....	13.00	-	-	0.12	0.14	-	8	13.26	19.76
	13.00	-	-	0.14	0.16	-	8	13.30	19.80
Amador.....	13.00	-	-	0.16	0.06	-	8	13.22	19.72
Butte, Glenn, and Plumas.....	13.00	0.16	-	<sup>c</sup> 0.13	0.05	-	8	<sup>b</sup> 13.34	<sup>b</sup> 19.84
Calaveras.....	13.00	-	-	0.10	0.12	-	8	13.22	19.72
Colusa and Sutter.....	13.00	-	-	0.12	0.14	-	8	13.26	19.76
	13.00	-	-	0.14	0.16	-	8	13.30	19.80
Contra Costa.....	13.00	-	-	-	0.12	-	8	13.12	19.62
Del Norte and Humboldt.....	13.00	-	-	0.25	0.07	-	8	13.32	19.82
Fresno.....	13.00	-	-	0.11	-	-	8	13.11	19.61
	13.00	-	-	<sup>d</sup> 0.19	0.19	-	8	<sup>b</sup> 13.38	<sup>b</sup> 19.88
Kings.....	13.00	-	-	<sup>e</sup> 0.25	0.25	-	8	<sup>b</sup> 13.50	<sup>b</sup> 20.00
Lake and Mendocino.....	13.00	-	-	<sup>f</sup> 0.13	0.03	-	8	<sup>b</sup> 13.16	<sup>b</sup> 19.66
	13.00	-	-	<sup>g</sup> 0.14	0.03	-	8	<sup>b</sup> 13.17	<sup>b</sup> 19.67
Lassen, Modoc, Shasta, Siskiyou and Trinity	13.00	-	-	0.31	0.09	-	8	13.40	19.90
Madera, Mariposa and Merced....	13.00	-	-	0.115	0.115	-	8	13.23	19.73
Marin.....	13.00	-	-	-	0.12	-	8	13.12	19.62
Monterey.....	13.00	-	-	0.14	0.22	-	8	13.36	19.86
	13.00	-	-	0.16	0.25	-	8	13.41	19.91
Napa.....	13.00	-	-	<sup>q</sup> 0.11	0.14	-	8	13.25	19.75
Nevada and Sierra.....	13.00	-	-	0.16	0.19	-	8	13.35	19.85
Placer.....	13.00	-	-	0.12	0.14	-	8	13.26	19.76
Sacramento.....	13.00	-	-	0.16	-	-	8	13.16	19.66
	13.00	-	-	0.15	-	-	8	13.15	19.65
San Benito.....	13.00	-	-	<sup>h</sup> 0.15	0.18	-	8	<sup>b</sup> 13.33	<sup>b</sup> 19.83
San Francisco.....	13.00	-	-	0.17	0.17	-	8	13.34	19.84
San Joaquin.....	13.00	0.37	-	<sup>i</sup> 0.12	0.12	-	8	<sup>b</sup> 13.61	<sup>b</sup> 20.11
San Mateo.....	13.00	0.43	-	<sup>j</sup> 0.12	0.14	-	8	<sup>b</sup> 13.69	<sup>b</sup> 20.19
	13.00	-	-	<sup>k</sup> 0.13	0.17	-	8	<sup>b</sup> 13.30	<sup>b</sup> 19.80
Santa Clara.....	13.00	0.03	-	<sup>l</sup> 0.13	0.18	-	8	<sup>b</sup> 13.34	<sup>b</sup> 19.84
Santa Cruz.....	13.00	-	-	0.16	-	-	8	13.16	19.66
	13.00	-	-	0.19	-	-	8	13.19	19.69
Solano.....	13.00	-	-	-	0.07	-	8	13.07	19.57
Sonoma.....	13.00	-	-	<sup>m</sup> 0.13	0.16	-	8	<sup>b</sup> 13.29	<sup>b</sup> 19.79
	13.00	0.38	-	<sup>n</sup> 0.15	0.19	-	8	<sup>b</sup> 13.72	<sup>b</sup> 20.22
Stanislaus and Tuolumne.....	13.00	-	-	0.115	0.14	-	8	13.255	19.755
	13.00	-	-	<sup>o</sup> 0.13	0.11	-	8	<sup>b</sup> 13.24	<sup>b</sup> 19.74
Tehama.....	13.00	-	-	0.12	0.19	-	8	13.31	19.81
Tulare.....	13.00	0.69	-	<sup>p</sup> 0.12	-	-	8	<sup>b</sup> 13.81	<sup>b</sup> 20.31
Yolo.....	13.00	-	-	-	0.14	-	8	13.14	19.64
	13.00	-	-	-	0.19	-	8	13.19	19.69
Yuba.....	13.00	-	-	0.14	0.16	-	8	13.30	19.80

**NOTE:** If there are two rates, the first rate is for routine work, the second rate is for complex work.



- a. \$0.20 after 3 years of service; \$0.27 after 5 years of service.
- b. Computation is based on first years of employment. This rate should be increased by any applicable vacation increase as stated in other footnotes.
- c. \$0.25 after 7 years of service.
- d. \$0.38 after 3 years of service.
- e. \$0.37 after 5 years of service; \$0.49 after 15 years of service.
- f. \$0.19 after 1 year of service; \$0.25 after 2 years of service.
- g. \$0.22 after 1 year of service; \$0.29 after 2 years of service.
- h. \$0.31 after 5 years of service.
- i. \$0.24 after 5 years of service.
- j. \$0.23 after 2 years of service; \$0.35 after 6 years of service.
- k. \$0.26 after 1 year of service; \$0.39 after 5 years of service.
- l. \$0.27 after 1 year of service; \$0.40 after 5 years of service.
- m. \$0.26 after 7 years of service.
- n. \$0.31 after 3 years of service; \$0.46 after 7 years of service.
- o. \$0.27 after 3 years of service; \$0.40 after 5 years of service.
- p. \$0.23 after 2 years of service.
- q. \$0.23 after 7 years of service.

<sup>1</sup> This determination does not apply to work of a landscape laborer employed on landscape construction (work incidental to construction or post-construction maintenance during the plant installation and establishment period). The following is a description of the landscape work cover under this determination:

***ROUTINE*** – mowing, watering, pruning, trimming, weeding, spraying, occasional planting and replacement of plants and janitorial work incidental to such landscape maintenance.

***COMPLEX*** – servicing of irrigation and sprinkler systems, repairing of equipment use in such landscape maintenance.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: # TUNNEL/UNDERGROUND (OPERATING ENGINEER-HEAVY AND HIGHWAY WORK)**

**DETERMINATION:** NC-23-63-1-2020-2C

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

Classification (Journey person)	Employer Payments						Hours <sup>e</sup>	Straight-Time		Overtime Hourly Rate			
	Basic	Health	Pension	Vacation	Training	Other		Total		Daily/	Sunday and		
	Hourly Rate	and Welfare		and Holiday <sup>c</sup>		Payments		Hourly Rate		Saturday <sup>d</sup> 1 1/2X	Holiday 2X		
Classification Group	Area 1 <sup>a</sup>	Area 2 <sup>b</sup>						Area 1 <sup>a</sup>	Area 2 <sup>b</sup>	Area 1 <sup>a</sup>	Area 2 <sup>b</sup>	Area 1 <sup>a</sup>	Area 2 <sup>b</sup>
<b><u>Underground Rate</u></b>													
Group 1-A	\$49.89	\$51.89	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$81.52	\$83.52	\$106.47	\$109.47	\$131.41
Group 1	\$47.42	\$49.42	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$79.05	\$81.05	\$102.76	\$105.76	\$126.47
Group 2	\$46.16	\$48.16	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$77.79	\$79.79	\$100.87	\$103.87	\$123.95
Group 3	\$44.83	\$46.83	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$76.46	\$78.46	\$98.88	\$101.88	\$121.29
Group 4	\$43.69	\$45.69	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$75.32	\$77.32	\$97.17	\$100.17	\$119.01
Group 5	\$42.55	\$44.55	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$74.18	\$76.18	\$95.46	\$98.46	\$116.73
<b><u>Shafts Stopes &amp; Raises</u></b>													
Group 1-A	\$49.99	\$51.99	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$81.62	\$83.62	\$106.62	\$109.62	\$131.61
Group 1	\$47.52	\$49.52	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$79.15	\$81.15	\$102.91	\$105.91	\$126.67
Group 2	\$46.26	\$48.26	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$77.89	\$79.89	\$101.02	\$104.02	\$124.15
Group 3	\$44.93	\$46.93	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$76.56	\$78.56	\$99.03	\$102.03	\$121.49
Group 4	\$43.79	\$45.79	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$75.42	\$77.42	\$97.32	\$100.32	\$119.21
Group 5	\$42.65	\$44.65	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$74.28	\$76.28	\$95.61	\$98.61	\$116.93

**CLASSIFICATIONS:**

**GROUP 1-A**

Tunnel Bore Machine Operator - 20 feet in diameter or more

**GROUP 1**

Heading Shield Operator  
Heavy Duty Repairman/Welder  
Mucking Machine  
Raised Bore Operator  
Tunnel Mole Bore Operator  
Tunnel Boring Machine Operator 10 ft up to 20 ft

**GROUP 2**

Combination Slusher and Motor Operator  
Concrete Pump or Pumpcrete Guns  
Power Jumbo Operator

**GROUP 3**

Drill Doctor  
Mine or Shaft Hoist

**GROUP 4**

Combination Slurry Mixer Cleaner  
Grouting Machine Operator  
Motorman

**GROUP 5**

Bit Sharpener  
Brakeman  
Combination Mixer and Compressor (Gunitite)  
Compressor Operator  
Assistant to Engineer  
Pump Operator  
Slusher Operator

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> **AREA 1** - Alameda, Butte, Contra Costa, Kings, Marin, Merced, Napa, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Solano, Stanislaus, Sutter, Yolo and Yuba counties; and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity counties.

<sup>b</sup> **AREA 2** - Modoc, and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity counties. (Portions of counties falling in each area detailed on page 41).

<sup>c</sup> Includes an amount for supplemental dues.

<sup>d</sup> Saturday in the same work week may be worked at straight-time if a job is shut down during the normal work week due to inclement weather.

<sup>e</sup> When three shifts are employed for five (5) or more consecutive days, seven and one-half (7 1/2) consecutive hours (exclusive of meal period), shall constitute a day of work, for which eight (8) times the straight time hourly rate shall be paid at the non-shift wage rate for the second shift. The third shift shall be seven (7) hours of work for eight (8) hours of pay at the non-shift wage rate.

**NOTE:** For Special Single and Second Shift rates, please see page 58A.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: # TUNNEL/UNDERGROUND (OPERATING ENGINEER-HEAVY AND HIGHWAY WORK)  
(SPECIAL SINGLE AND SECOND SHIFT)**

**DETERMINATION:** NC-23-63-1-2020-2C

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 27, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**LOCALITY:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

Classification (Journeyperson)	Employer Payments							Straight-Time		Overtime Hourly Rate				
	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday <sup>c</sup>	Training	Other Payments	Hours	Total Hourly Rate	Daily/ Saturday <sup>d</sup> 1 1/2X	Sunday and Holiday 2X				
Classification Group	Area 1 <sup>a</sup>	Area 2 <sup>b</sup>						Area 1 <sup>a</sup>	Area 2 <sup>b</sup>	Area 1 <sup>a</sup>	Area 2 <sup>b</sup>	Area 1 <sup>a</sup>	Area 2 <sup>b</sup>	
<u>Underground Rate</u>														
Group 1-A	\$55.02	\$57.02	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$86.65	\$88.65	\$114.16	\$117.16	\$141.67	\$145.67
Group 1	\$52.23	\$54.23	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$83.86	\$85.86	\$109.98	\$112.98	\$136.09	\$140.09
Group 2	\$50.82	\$52.82	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$82.45	\$84.45	\$107.86	\$110.86	\$133.27	\$137.27
Group 3	\$49.34	\$51.34	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$80.97	\$82.97	\$105.64	\$108.64	\$130.31	\$134.31
Group 4	\$48.04	\$50.04	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$79.67	\$81.67	\$103.69	\$106.69	\$127.71	\$131.71
Group 5	\$46.77	\$48.77	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$78.40	\$80.40	\$101.79	\$104.79	\$125.17	\$129.17
<u>Shafts Stopes &amp; Raises</u>														
Group 1-A	\$55.13	\$57.13	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$86.76	\$88.76	\$114.33	\$117.33	\$141.89	\$145.89
Group 1	\$52.34	\$54.34	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$83.97	\$85.97	\$110.14	\$113.14	\$136.31	\$140.31
Group 2	\$50.93	\$52.93	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$82.56	\$84.56	\$108.03	\$111.03	\$133.49	\$137.49
Group 3	\$49.45	\$51.45	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$81.08	\$83.08	\$105.81	\$108.81	\$130.53	\$134.53
Group 4	\$48.15	\$50.15	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$79.78	\$81.78	\$103.86	\$106.86	\$127.93	\$131.93
Group 5	\$46.88	\$48.88	\$13.88	\$10.78	\$4.77	\$1.07	\$1.13	8	\$78.51	\$80.51	\$101.95	\$104.95	\$125.39	\$129.39

**CLASSIFICATIONS:**

**GROUP 1-A**

Tunnel Bore Machine Operator - 20 feet in diameter or more

**GROUP 1**

Heading Shield Operator  
Heavy Duty Repairman/Welder  
Mucking Machine  
Raised Bore Operator  
Tunnel Mole Bore Operator  
Tunnel Boring Machine Operator 10 ft up to 20 ft

**GROUP 2**

Combination Slusher and Motor Operator  
Concrete Pump or Pumpcrete Guns  
Power Jumbo Operator

**GROUP 3**

Drill Doctor  
Mine or Shaft Hoist

**GROUP 4**

Combination Slurry Mixer Cleaner  
Grouting Machine Operator  
Motorman

**GROUP 5**

Bit Sharpener  
Brakeman  
Combination Mixer and Compressor (Gunite)  
Compressor Operator  
Assistant to Engineer  
Pump Operator  
Slusher Operator

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>.

<sup>a</sup> **AREA 1** - Alameda, Butte, Contra Costa, Kings, Marin, Merced, Napa, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Solano, Stanislaus, Sutter, Yolo and Yuba counties; and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity counties.

<sup>b</sup> **AREA 2** - Modoc, and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity counties. (Portions of counties falling in each area detailed on page 41).

<sup>c</sup> Includes an amount for supplemental dues.

<sup>d</sup> Saturday in the same work week may be worked at straight-time if a job is shut down during the normal work week due to inclement weather.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS  
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: TREE MAINTENANCE<sup>1</sup> (LABORER)**

**(APPLIES ONLY TO ROUTINE TREE MAINTENANCE WORK, NOT CONSTRUCTION AND/OR LANDSCAPE CONSTRUCTION<sup>2</sup>)**

**DETERMINATION:** NC-102-X-21-2020-2

**ISSUE DATE:** August 22, 2020

**EXPIRATION DATE OF DETERMINATION:** June 30, 2021\*\* The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

**Locality:** All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

CLASSIFICATION(s) <sup>a</sup> (Journey person)	Employer Payments						Straight-Time		Overtime Hourly Rate	
	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday	Training	Other	Hours	Total Hourly Rate	Daily 1 1/2X <sup>b</sup>	Sunday/ Holiday 2X
<b>AREA 1<sup>c</sup></b>										
Senior Tree Trimmer	\$26.85	\$6.00	\$1.50	\$2.07	-	\$0.05	8	\$36.47	\$49.89	\$63.32
Tree Trimmer	\$23.85	\$6.00	\$1.50	\$1.87	-	\$0.05	8	\$33.27	\$45.19	\$57.12
Grounds person	\$20.85	\$6.00	\$1.50	\$1.72	-	\$0.05	8	\$30.12	\$40.54	\$50.97
<b>AREA 2<sup>c</sup></b>										
Senior Tree Trimmer	\$22.35	\$6.00	\$1.50	\$2.07	-	\$0.05	8	\$31.97	\$43.14	\$54.32
Tree Trimmer	\$20.85	\$6.00	\$1.50	\$1.87	-	\$0.05	8	\$30.27	\$40.69	\$51.12
Grounds person	\$18.85	\$6.00	\$1.50	\$1.72	-	\$0.05	8	\$28.12	\$37.54	\$46.97

<sup>a</sup> There shall be at least one Senior Tree Trimmer on crews of three or more.

<sup>b</sup> Monday thru Saturday shall constitute a workweek. Rate applies to first 4 overtime hours Monday thru Saturday, and all time worked in excess of forty (40) hours per workweek. All other time is paid at the Sunday and Holiday double-time rate.

<sup>c</sup> **AREA 1** – MARIN, MONTEREY, NAPA, SAN BENITO, SAN FRANCISCO, SAN MATEO, SANTA CLARA, SANTA CRUZ, SOLANO, AND SONOMA COUNTIES.

**AREA 2** – ALAMEDA, ALPINE, AMADOR, BUTTE, CALAVERAS, COLUSA, CONTRA COSTA, DEL NORTE, EL DORADO, FRESNO, GLENN, HUMBOLDT, KINGS, LAKE, LASSEN, MADERA, MARIPOSA, MENDOCINO, MERCED, MODOC, NEVADA, PLACER, PLUMAS, SACRAMENTO, SAN JOAQUIN, SHASTA, SIERRA, SISKIYOU, STANISLAUS, SUTTER, TEHAMA, TRINITY, TULARE, TUOLUMNE, YOLO, AND YUBA COUNTIES.

<sup>1</sup> This determination does not apply to the work of a landscape laborer employed on landscape construction (work incidental to construction or post-construction maintenance during the plant installation and establishment period) or to tree trimming work involving line clearance.

<sup>2</sup> This determination does not apply to tree trimming, removal, or planting work performed on construction or landscape construction contracts.

**RECOGNIZED HOLIDAYS:** Holidays upon which the general prevailing hourly wage rate for holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the internet at <http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

**TRAVEL AND/OR SUBSISTENCE PAYMENT:** In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the internet at <http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

## DIVISION 01 GENERAL REQUIREMENTS

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# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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## ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

### 1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
  2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
  3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
  4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
  5. *Bidder*—An individual or entity that submits a Bid to Owner.
  6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
  7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
  8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
  9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
  10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision

regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. (“CERCLA”); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5101 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. (“RCRA”); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Engineer*—The individual or entity named as such in the Agreement.
21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.
23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.

25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
26. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
27. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
29. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.
32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative.
33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals and the performance of related construction activities.
35. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.
36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
37. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.

38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
39. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
40. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.
42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
43. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.
45. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
46. *Unit Price Work*—Work to be paid for on the basis of unit prices.
47. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

## 1.02 Terminology

- A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:*
1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day:*
1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:*
1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
    - a. does not conform to the Contract Documents; or
    - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
    - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).
- E. *Furnish, Install, Perform, Provide:*
1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
  2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
  3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
  4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words



“furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

## ARTICLE 2 – PRELIMINARY MATTERS

### 2.01 *Delivery of Bonds and Evidence of Insurance*

- A. *Bonds*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.
- C. *Evidence of Owner’s Insurance*: After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

### 2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor ~~four~~ two printed copies of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). ~~Additional printed copies will be furnished upon request at the cost of reproduction.~~
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

### 2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:
  - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
  - 2. a preliminary Schedule of Submittals; and
  - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

#### 2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

#### 2.05 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
  - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
  - 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
  - 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

#### 2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.
- B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

## ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

### 3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

### 3.02 *Reference Standards*

- A. Standards Specifications, Codes, Laws and Regulations
  - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
  - 2. No provision of any such standard specification, manual, reference standard, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

### 3.03 *Reporting and Resolving Discrepancies*

- A. *Reporting Discrepancies:*
  - 1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
  3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.
- B. *Resolving Discrepancies:*
1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
    - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
    - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

### 3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.
- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

### 3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
  - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
  - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

## **ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK**

### 4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the ~~thirtieth~~ **fifteenth** day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Contract, whichever date is earlier.

### 4.02 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to such date.

### 4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

### 4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
  - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

#### 4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
  1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
  2. abnormal weather conditions;
  3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
  4. acts of war or terrorism.
- D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.
- E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
- F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.
- G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

## ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

### 5.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

### 5.02 *Use of Site and Other Areas*

- A. *Limitation on Use of Site and Other Areas:*
  - 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
  - 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste

materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

- C. *Cleaning*: Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading of Structures*: Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

#### 5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings*: The Supplementary Conditions identify:
  - 1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;
  - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and
  - 3. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
  - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
  - 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
  - 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

#### 5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor*: If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site either:
  - 1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate; or
  - 2. is of such a nature as to require a change in the Drawings or Specifications; or
  - 3. differs materially from that shown or indicated in the Contract Documents; or



4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Possible Price and Times Adjustments:*
  1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
    - a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
    - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
    - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
  2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
    - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or
    - b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site

and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or

- c. Contractor failed to give the written notice as required by Paragraph 5.04.A.
- 3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
- 4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

#### 5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
  - 1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and
  - 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
    - a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
    - b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;
    - c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
    - d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.
- C. *Engineer's Review:* Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and

recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Possible Price and Times Adjustments:*
  - 1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
    - a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;
    - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
    - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and
    - d. Contractor gave the notice required in Paragraph 5.05.B.
  - 2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
  - 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

#### 5.06 *Hazardous Environmental Conditions at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
  - 1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
  - 2. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer,

or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
  2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
  3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.
- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.
- H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special

conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

## **ARTICLE 6 – BONDS AND INSURANCE**

### **6.01 *Performance, Payment, and Other Bonds***

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.
- B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond

signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

- C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
- D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.
- E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.
- F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

#### 6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor

to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.

- F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.
- H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.
- I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.
- J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

#### 6.03 *Contractor's Insurance*

- A. *Workers' Compensation:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:
  - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
  - 2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
  - 3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).
  - 4. Foreign voluntary worker compensation (if applicable).
- B. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:
  - 1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
  - 2. claims for damages insured by reasonably available personal injury liability coverage.
  - 3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- C. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:
  - 1. Products and completed operations coverage:
    - a. Such insurance shall be maintained for three years after final payment.

- b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
  - 2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
  - 3. Broad form property damage coverage.
  - 4. Severability of interest.
  - 5. Underground, explosion, and collapse coverage.
  - 6. Personal injury coverage.
  - 7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.
  - 8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- D. *Automobile liability*: Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.
- E. *Umbrella or excess liability*: Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.
- F. *Contractor's pollution liability insurance*: Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.
- G. *Additional insureds*: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.
- H. *Contractor's professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial



Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.

- I. *General provisions:* The policies of insurance required by this Paragraph 6.03 shall:
  1. include at least the specific coverages provided in this Article.
  2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.
  3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.
  4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.
  5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.
- J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

#### 6.04 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.
- B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

#### 6.05 *Property Insurance-not required*

- ~~A. *Builder's Risk:* Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:~~
  - ~~1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."~~

- ~~2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.~~
  - ~~3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.~~
  - ~~4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).~~
  - ~~5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).~~
  - ~~6. extend to cover damage or loss to insured property while in transit.~~
  - ~~7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.~~
  - ~~8. allow for the waiver of the insurer's subrogation rights, as set forth below.~~
  - ~~9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.~~
  - ~~10. not include a co-insurance clause.~~
  - ~~11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.~~
  - ~~12. include performance/hot testing and start up.~~
  - ~~13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.~~
- B. *Notice of Cancellation or Change:* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this

Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.

- C. *Deductibles*: The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
- E. *Additional Insurance*: If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.
- F. *Insurance of Other Property*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

#### 6.06 *Waiver of Rights*

- A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:
  - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by,

arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.
- D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

#### 6.07 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

### **ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES**

#### 7.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

#### 7.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

#### 7.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

#### 7.04 *"Or Equals"*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.
  - 1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:

- a. in the exercise of reasonable judgment Engineer determines that:
    - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
    - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
    - 3) it has a proven record of performance and availability of responsive service; and
    - 4) it is not objectionable to Owner.
  - b. Contractor certifies that, if approved and incorporated into the Work:
    - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
    - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense:* Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.
- E. *Treatment as a Substitution Request:* If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the proposed item as a substitute pursuant to Paragraph 7.05.

## 7.05 Substitutes

- A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.
  - 1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.

2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
  - a. shall certify that the proposed substitute item will:
    - 1) perform adequately the functions and achieve the results called for by the general design,
    - 2) be similar in substance to that specified, and
    - 3) be suited to the same use as that specified.
  - b. will state:
    - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,
    - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
    - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
  - c. will identify:
    - 1) all variations of the proposed substitute item from that specified, and
    - 2) available engineering, sales, maintenance, repair, and replacement services.
  - d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the

Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

- E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.
- B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.
- E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.
- F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.



- H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.
- J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
- K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.
- L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
- N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.
- O. Nothing in the Contract Documents:
  - 1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor
  - 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

#### **7.07 *Patent Fees and Royalties***

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the

performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.

- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

#### 7.08 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

#### 7.09 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

#### 7.10 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if

any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

#### 7.11 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

#### 7.12 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
  - 1. all persons on the Site or who may be affected by the Work;
  - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
  - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly

or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

- F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
- G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

#### 7.13 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

#### 7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

#### 7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

#### 7.16 *Shop Drawings, Samples, and Other Submittals*

- A. *Shop Drawing and Sample Submittal Requirements:*
  - 1. Before submitting a Shop Drawing or Sample, Contractor shall have:
    - a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
    - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
    - c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
    - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
  - 2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.
- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.
1. *Shop Drawings:*
    - a. Contractor shall submit the number of copies required in the Specifications.
    - b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.
  2. *Samples:*
    - a. Contractor shall submit the number of Samples required in the Specifications.
    - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.
  3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Other Submittals:* Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.
- D. *Engineer's Review:*
1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
  2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.
  3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
  4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and

Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.

5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.
8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.
2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
  1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
  2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Engineer;
  2. recommendation by Engineer or payment by Owner of any progress or final payment;
  3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
  4. use or occupancy of the Work or any part thereof by Owner;
  5. any review and approval of a Shop Drawing or Sample submittal;
  6. the issuance of a notice of acceptability by Engineer;
  7. any inspection, test, or approval by others; or
  8. any correction of defective Work by Owner.
- D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

#### 7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
  2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

#### 7.19 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.
- B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

### **ARTICLE 8 – OTHER WORK AT THE SITE**

#### 8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or



alter others' work with the written consent of Engineer and the others whose work will be affected.

- D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

#### 8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
  - 1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
  - 2. an itemization of the specific matters to be covered by such authority and responsibility; and
  - 3. the extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

#### 8.03 *Legal Relationships*

- A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner for whom the Owner is responsible causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual

rights against Contractor with respect to the breach of the obligations set forth in this paragraph.

- C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.
- D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

## **ARTICLE 9 – OWNER'S RESPONSIBILITIES**

### **9.01    *Communications to Contractor***

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

### **9.02    *Replacement of Engineer***

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.

### **9.03    *Furnish Data***

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

### **9.04    *Pay When Due***

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

### **9.05    *Lands and Easements; Reports, Tests, and Drawings***

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

**ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION**

10.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On

the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

#### 10.03 *Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent, or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

#### 10.04 *Rejecting Defective Work*

- A. Engineer has the authority to reject Work in accordance with Article 14.

#### 10.05 *Shop Drawings, Change Orders and Payments*

- A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.
- B. Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.
- C. Engineer's authority as to Change Orders is set forth in Article 11.
- D. Engineer's authority as to Applications for Payment is set forth in Article 15.

#### 10.06 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

#### 10.07 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

#### 10.08 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in

contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

#### 10.09 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

### **ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK**

#### 11.01 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
  - 1. *Change Orders:*
    - a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.
    - b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.
  - 2. *Work Change Directives:* A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents

governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. *Field Orders*: Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

#### 11.02 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

#### 11.03 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

#### 11.04 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
  1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or
  2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).
- C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
  2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
    - a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;
    - b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;
    - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.04.C.2.a and 11.04.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;
    - d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
    - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
    - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

#### 11.05 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.
- B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

#### 11.06 *Change Proposals*

- A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under

the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

1. *Procedures:* Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.
  2. *Engineer's Action:* Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
  3. *Binding Decision:* Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- B. *Resolution of Certain Change Proposals:* If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

#### 11.07 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
1. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
  2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
  3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and
  4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.



- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

#### 11.08 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

### ARTICLE 12 – CLAIMS

#### 12.01 *Claims*

- A. *Claims Process:* The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:
  - 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
  - 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and
  - 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.
- B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation:*
  - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.
  - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal

and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

## **ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK**

### **13.01 Cost of the Work**

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
  1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
  2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:
  1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing

Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
  - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
  - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
  - c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
  - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
  - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
  - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or

indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee:* When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.

E. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

### 13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

- B. *Cash Allowances*: Contractor agrees that:
  - 1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
  - 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- C. *Contingency Allowance*: Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

### 13.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.
- E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:
  - 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;
  - 2. there is no corresponding adjustment with respect to any other item of Work; and
  - 3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

## ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

### 14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

### 14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
  - 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
  - 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
  - 3. by manufacturers of equipment furnished under the Contract Documents;
  - 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
  - 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to

cover the same and Engineer had not acted with reasonable promptness in response to such notice.

#### 14.03 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

#### 14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

#### 14.05 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.

- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
  - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
  - 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

#### 14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

#### 14.07 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.



- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

## **ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD**

### **15.01 *Progress Payments***

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments:*
  - 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
  - 2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
  - 3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.
- C. *Review of Applications:*
  - 1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
  - 2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
    - a. the Work has progressed to the point indicated;
    - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon

Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and

- c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
- a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
  - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
- a. to supervise, direct, or control the Work, or
  - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
  - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
  - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or
  - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
- a. the Work is defective, requiring correction or replacement;
  - b. the Contract Price has been reduced by Change Orders;
  - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
  - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
  - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due:*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner:*

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
  - a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
  - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
  - c. Contractor has failed to provide and maintain required bonds or insurance;
  - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
  - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
  - f. the Work is defective, requiring correction or replacement;
  - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
  - h. the Contract Price has been reduced by Change Orders;
  - i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;
  - j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
  - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
  - l. there are other items entitling Owner to a set off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

#### 15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

#### 15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

#### 15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
  - 1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.
  - 2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
  - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
  - 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

#### 15.05 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

#### 15.06 *Final Payment*

- A. *Application for Payment:*
  - 1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:
  - a. all documentation called for in the Contract Documents;
  - b. consent of the surety, if any, to final payment;
  - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
  - d. a list of all disputes that Contractor believes are unsettled; and
  - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

**B. *Engineer's Review of Application and Acceptance:***

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.
- C. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.
- D. *Payment Becomes Due:* Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

#### 15.07 *Waiver of Claims*

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

#### 15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
  - 1. correct the defective repairs to the Site or such other adjacent areas;
  - 2. correct such defective Work;
  - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
  - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

## ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

### 16.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

### 16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
  - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);
  - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
  - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
  - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:
  - 1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and
  - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When



exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

#### 16.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
  - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
  - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
  - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

#### 16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

## ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

### 17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this Article:
  - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and
  - 2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this Article, Owner or Contractor may:
  - 1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or
  - 2. agree with the other party to submit the dispute to another dispute resolution process; or
  - 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

## ARTICLE 18 – MISCELLANEOUS

### 18.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
  - 1. delivered in person, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or
  - 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

### 18.02 *Computation of Times*

- A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

### 18.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

18.07 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

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## **Supplementary General Conditions**

### **SUPPLEMENTARY CONDITIONS**

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC C-700 (2013 Edition). All provisions which are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

#### **SC-4.01 CONTRACT TIME**

The Contract time shall be 270 calendar days.

#### **SC-4.03 LIQUIDATED DAMAGES.**

Liquidated damages shall be \$1,500 per day for each calendar day exceeding the Contract Time. In accordance with the provisions of Section 4215 of the California Government Code, the Contractor shall not be assessed liquidated damages for delay of completion of the project, when such delay was caused by the failure of the public agency or owner of the utility to provide for the removal or relocation of such utility facilities.

#### **SC 5.03 SUBSURFACE AND PHYSICAL CONDITIONS**

A geotechnical investigation of the site has been prepared by BSK Associates, "Geotechnical Engineering Investigation Report -Proposed West Aerated Pond Evaluation, City of Corcoran, WWTF, BSK Project G19-168-11F, September 10, 2019. A subsequent Geotechnical Investigation Letter Report was prepared June 19, 2020. A copy will be provided in PDF format with the Contract Documents.

#### **SC-5.06 A(1) HAZARDOUS ENVIRONMENTAL CONDITIONS AT SITE**

A. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner.

#### **SC-6.03 INSURANCE**

The limits of liability for the insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. Workers' Compensation, and related coverages under Paragraphs 6.03.A.1 and A.2 of the General Conditions:

State:	Statutory
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Federal, if applicable (e.g., Longshoreman's):	Statutory
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Jones Act coverage, if applicable:

Bodily injury by accident, each accident	\$ 1,000,000
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Bodily injury by disease, aggregate	\$ 1,000,000
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Employer's Liability:

Bodily injury, each accident	\$ 1,000,000
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Bodily injury by disease, each employee	\$ 1,000,000
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Bodily injury/disease aggregate	\$ 1,000,000
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2. Contractor's Commercial General Liability under Paragraphs 6.03.B and 6.03.C of the General Conditions:

General Aggregate	\$ 2,000,000
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Products - Completed Operations Aggregate	\$ 1,000,000
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Personal and Advertising Injury	\$ 1,000,000
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Each Occurrence (Bodily Injury and Property Damage)	\$ 1,000,000
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3. Automobile Liability under Paragraph 6.03.D. of the General Conditions:

Bodily Injury:

Each person	\$ 1,000,000
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Each accident	\$ 1,000,000
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Property Damage:

Each accident	\$ 1,000,000
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4. Excess or Umbrella Liability:

Per Occurrence	\$ 1,000,000
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General Aggregate	\$ 1,000,000
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5. Contractor's Pollution Liability:

Each Occurrence	\$ Not required
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## SC-7.02 A CONSTRUCTION SURVEYS

*Add the following language immediately after Paragraph 7.02 A:*

Contractor shall provide all construction surveying from benchmark and control points provided by the Engineer.

## SC-7.02 B WORKING HOURS.

*Add the following language immediately after Paragraph 7.02 B:*

Contractor shall limit his field working hours from 7:00 a.m. to 6:00 PM. Monday through Friday. Any deviations must be requested in writing and directed to the Engineer at the Pre-Job Conference. Written approval from the Engineer is required for work beyond these limits.

Any time work proceeds which requires inspection services for more than an eight (8.0) hour work day or on legal holidays or on weekends, the Contractor will be charged for all associated overtime charges and said charges may be withheld from contract retention. Those overtime inspection charges will be waived for those overtime hours in which the contract compels working hours of more than an eight hour work day or on legal holidays or on weekends.

## SC-7.12 C TRENCH SAFETY.

*Add the following language immediately after Paragraph 7.12 C:*

The Contractor shall comply with Section 6705 of the Labor Code which provides that the Contractor's responsibility shall be as follows: If the contract price for the project includes an expenditure in excess of TWENTY-FIVE THOUSAND DOLLARS (\$25,000) for excavation of any trench or trenches five (5) feet or more in depth, the Contractor or his Subcontractor shall not begin any trench excavation unless a detailed plan, showing the design of shoring, bracing, sloping or other provisions to be made for worker protection during the excavation of the trench, has been submitted by the Contractor to the Engineer and the detailed plans have been reviewed by the Engineer.

If such a plan varies from the shoring system standards established by the Construction Safety Orders of the Division of Industrial Safety, the plan shall be prepared by a Registered Civil or Structural Engineer.

Nothing in this section shall be deemed to allow the use of a shoring, sloping, or protective system less effective than that required by the Construction Safety Orders of the Division of Industrial Safety.

Nothing in this section shall be construed to impose tort liability on the awarding body or any of its employees. The terms "Public Works," and "Awarding Body," as used in this section, shall have the same meaning as in Labor Code Sections 1720 and 1722 respectively.

Before execution of the contract by the Owner, the Contractor shall submit to the Owner a copy of his permit for the project issued by Cal-OSHA.



## SC-7.20 PREVAILING WAGES

*Add the following after Section 7.19:*

Contractor shall comply with state prevailing wage law, Chapter 1 of Part 7 of Division 2 of the Labor Code, commencing with Section 1720 and Title 8, California Code of Regulations, Chapter 8, Subchapter 3, commencing with Section 16000, for any “public works” (as that term is defined in the statutes) performed on the Project. For purpose of compliance with prevailing wage law, the Contractor shall comply with provisions applicable to an awarding body. Compliance with state prevailing wage law includes without limitation: payment of at least prevailing wage as applicable; overtime and working hour requirements; apprenticeship obligations; payroll recordkeeping requirements; and other obligations as required by law.

PREVAILING WAGES. Pursuant to Chapter 1 of Part 7 Division 2 of the Labor Code (commencing with Section 1720), Contractor agrees that in performing said work, by himself or through any subcontractor, eight hours labor shall be one day's work and forty hours labor shall be one week's work, and that Contractor shall keep an accurate record showing the name and actual hours worked for all workers employed in said work, and that said record shall be kept open at all reasonable hours for inspection pursuant to Section 1812 of the Labor Code. The Contractor and all Subcontractors shall pay not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime to all workers employed in the construction of this project. The prevailing rate for each craft, classification or type of work is determined by the Director of the California Department of Industrial Relations (DIR). This schedule of prevailing rates is on file and available for inspection at the offices of the Owner and through the Department of Industrial Relations' website <http://www.dir.ca.gov/DLSR/PWD/>. The schedule is incorporated herein by this reference. The Owner shall have the right to inspect payroll records during normal working hours and shall have the right to question workers at any time concerning the wages being paid. Contractor shall not interfere in any way with the Owner's right to investigate conformance with the wage provisions of this contract.

Contractor shall forfeit to the Owner for each worker employed for each calendar day or portion thereof:

- a. FIFTY DOLLARS (\$50) pursuant to Section 1775 of the Labor Code, per worker paid less than the amount to which he is entitled under said general prevailing rate of wages; and
- b. TWENTY-FIVE DOLLARS (\$25) pursuant to Section 1813 of the Labor Code, per worker required to work more than eight (8) hours per day or more than forty (40) hours per week, except as provided in Section 1815 of the Labor Code.

## SC 7.21 DEPARTMENT OF INDUSTRIAL RELATIONS CONTRACTOR REGISTRATION

*Add the following after Section 7.19: and SC-7.20:*

Effective March 1, 2015, all prime contractors and sub-contractors must have a current registration with the Department of Industrial Relations at the time bids are received and throughout the duration of the project. If a prime contractor is not registered at the time bids are received their bid will be deemed non responsive. If a sub- contractor is not registered at the time bids are received, they must be registered within 24 hours of the bid opening, otherwise their bid will be deemed non-responsive. In the case that a sub-contractor's bid is deemed non-

responsive, the prime contractor shall substitute that subcontractor with a responsive and responsible registered subcontractor per Section 4107 of the Public Contract Code.

For more information please go to the DIR website <https://www.dir.ca.gov/Public-Works/Contractor-Registration.html>

To register with Department of Industrial Relations please go to the following website: <https://efiling.dir.ca.gov/PWCR/>.

Effective immediately, the prime contractor shall post job site notices prescribed by California Code of Regulations, Title 8 Section 16541(d).

SB 854 Notice Requirements:

- No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].
- No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
- This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

#### SC-7.22 PUBLIC WORKS CONTRACTS ASSIGNMENT TO AWARDING BODY

*Add the following after Section 7.21*

In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with § 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the contractor, without further acknowledgment by the parties. [Pub Cont Code § 7103.5 (b)]

#### SC-17.02 DISPUTE RESOLUTION PROCESS

*Add the following new paragraphs SC-17.02 immediately after Section 17.01.*

- A. All matters subject to final resolution under this Article will be decided by arbitration in accordance with the rules of *Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement*, subject to the conditions and limitations of this paragraph. This agreement to arbitrate and any other agreement or consent to arbitrate entered into will be specifically enforceable under the prevailing law of any court having jurisdiction.
- B. The demand for arbitration will be filed in writing with the other party to the Contract and with the selected arbitrator or arbitration provider and a copy will be sent to Engineer for information. The demand for arbitration will be made within the specific

time required in this Article, or if no specified time is applicable within a reasonable time after the matter in question has arisen, and in no event shall any such demand be made after the date when institution of legal or equitable proceedings based on such matter in question would be barred by the applicable statute of limitations. The demand for arbitration should include specific reference to Paragraph D below.

- C. No arbitration arising out of or relating to the Contract shall include by consolidation, joinder, or in any other manner any other individual or entity (including Engineer, and Engineer's consultants and the officers, directors, partners, agents, employees or consultants of any of them) who is not a party to this Contract unless:
  - 1. the inclusion of such other individual or entity is necessary if complete relief is to be afforded among those who are already parties to the arbitration; and
  - 2. Such other individual or entity is substantially involved in a question of law or fact which is common to those who are already parties to the arbitration and which will arise in such proceedings.
- D. The award rendered by the arbitrator(s) shall be consistent with the agreement of the parties, in writing, and include a concise breakdown of the award, and a written explanation of the award specifically citing the Contract provisions deemed applicable and relied on in making the award.
- E. The award will be final. Judgment may be entered upon it in any court having jurisdiction thereof, and it will not be subject to modification or appeal, subject to provisions of the Laws and Regulations relating to vacating or modifying an arbitral award.
- F. The fees and expenses of the arbitrators and any arbitration service shall be shared equally by Owner and Contractor.

#### *SC-17.03 Attorneys' Fees*

SC-17.02 Add the following new paragraph immediately after Paragraph 17.02.

SC-17.03 Attorneys' Fees: For any matter subject to final resolution under this Article, the prevailing party shall be entitled to an award of its attorneys' fees incurred in the final resolution proceedings, in an equitable amount to be determined in the discretion of the court, arbitrator, arbitration panel, or other arbiter of the matter subject to final resolution, taking into account the parties' initial demand or defense positions in comparison with the final result.

END OF SECTION

## Technical Specifications

**SECTION 02 01 20**  
**PROTECTING EXISTING UNDERGROUND**  
**UTILITIES**

**PART 1 GENERAL**

1.0 This section includes the protection of existing utilities, survey markers and monuments.

**1.1 UNDERGROUND FACILITIES**

A. Shown or Indicated: The information and data shown or indicated in the Contract Documents with respect to existing underground facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such underground facilities, including Owner, or by others.

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and

The cost of all the following will be included in the Contract Price, and Contractor shall have full responsibility for:

- a. Reviewing and checking all such information and data,
- b. Locating all Underground Facilities shown or indicated in the Contract Documents,
- c. Coordination of the Work with the owners of such underground facilities, including Owner, during construction, and
- d. The safety and protection of all such underground facilities and repairing any damage thereto resulting from the work.

B. Not Shown or Indicated: If an underground facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated with reasonable accuracy in the Contract Documents, the provisions of the General Conditions and Division 1 shall apply.

1. Contractor shall develop and execute a work-plan, subject to Engineer's approval, to protect underground facilities.
2. The Contractor shall expose, prior to staking and trenching, all existing utilities and existing facilities which may control proposed facility grades, and alignment. Two working days' notice shall be given to the Engineer prior to commencing this work.
3. Full compensation for all costs involved in locating, verifying, protecting, exposing, and otherwise providing for utilities shall be included in the amounts bid for the various items of work, and no separate payment shall be made therefore.

## 1.2 PROTECTION

- A. The Contractor shall not interrupt the service function or disturb the supporting base of any Utility by disrupting any facility identified in the Plans and Specifications without authority from the Owner or order from the Engineer. Where protection of such facilities is required to ensure support of utilities, the Contractor shall, unless otherwise provided, furnish and place the necessary protection at the Contractor's expense.
- B. The Contractor shall always be prepared with labor, equipment and materials to make repair on damaged mains or Utility facilities. The Contractor shall immediately notify the Engineer and the Utility owner if he disturbs, disconnects or damages any Utility. The Contractor shall bear the costs of repair or replacement of any Utility facility described with reasonable accuracy in the Plans and Specifications that is damaged by the Contractor. No extra compensation will be made for the repair of any services or mains damaged by the Contractor, nor for any damage incurred if the neglect or failure of providing protective barriers, lights and other devices or means required to protect such existing utilities or facilities described with reasonable accuracy in the Plans and Specifications.

## 1.3 SURVEY MARKERS AND PERMANENT REFERENCE POINTS

### A. Surveying and Permanent Survey Markers

The Engineer will take measurements to assure the preservation of survey markers (monuments and bench marks). The Contractor shall not disturb permanent survey markers without the consent of Engineer and shall bear the expense of replacing any that may be disturbed without permission.

1. Replacement of survey markers shall be done only by the Engineer.
2. If disturbing of markers cannot be avoided, the Owner shall pay the cost of replacing said markers.

### B. Lot Corner Monuments

The Contractor shall preserve property line and corner survey markers except where their destruction is unavoidable, and the Contractor is proceeding in accordance with accepted practice. Markers that are lost or disturbed by his operations shall be replaced at the Contractor's expense by the Engineer.

## **PART 2 PROUCTS - NOT USED**

## **PART 3 EXECUTION – NOT USED**

## **END OF SECTION**

## **SECTION 02 41 00**

### **DEMOLITION**

#### **PART 1 GENERAL**

##### **1.1 DESCRIPTION**

- A. The work of this section consists of demolition and removal of existing pumps, piping, fittings and valves, concrete pedestals and other appurtenances as shown on the plans to be removed.

##### **1.2 DEFINITIONS:**

- A. Portland Cement Concrete: A mixture of Portland cement, fine aggregate, coarse aggregate, admixtures (if used) and water, proportioned and mixed. Also, included is rebar.

##### **1.3 WORK INCLUDED**

- A. Repair and restoration of areas damaged due to demolition work.
- B. Salvaging of equipment for Owner.
- C. Removal of demolished materials from site.
- D. Remove existing piping and other existing structures as shown on the Plans to be removed.
- E. Properly dispose of all removed materials.
- F. Dewatering and disposal of fluids, sludge and solids drained or removed from piping as needed in order to complete the proposed demolition.
- G. Temporary piping supports, blind flanges, plugs and caps as required to complete the work.

##### **1.4 RELATED WORK**

- A. Section 01 72 00 Construction Sequence

##### **1.5 SEQUENCING**

- A. Sequence work to minimize interference with wastewater treatment facilities operation. The wastewater plant must remain in continuous operation.
- B. Contractor shall schedule the demolition, removal and replacement of pumps such that only one pump is out of service at a time.

- C. Valves shall be removed and replaced in a sequence that minimizes disruption of the plant.

#### 1.6 REGULATORY REQUIREMENTS

- A. Obtain required permits.
- B. Dispose of removed materials in an approved disposal or salvage facility.

#### 1.7 REFERENCES

- A. Section 16 – Clearing and Grubbing, State Standard Specifications

#### 1.8 SUBMITTALS

- A. As specified in Section 01 33 00 – Submittals.
- B. Demolition plan including sequence of operations. The plan shall specifically address methods of demolition, schedule, sequence of demolition, and procedures for monitoring. The plan shall identify valves that will be closed or repositioned to isolate the pump/valve to be replaced. Identify and specify which electrical switchgear will be locked out during demolition and construction. Demolition shall not proceed until the plan has been approved. Coordinate the plan with operations staff.

#### 1.9 QUALITY ASSURANCE

- A. General: Take all necessary precautions to safely carry out the demolition and site work. Erect suitable barriers around open hatches and fulfill all appropriate requirements of CAL/OSHA. Comply with safety requirements for demolition in accordance with ANSI A10.6-90.

#### 1.10 PROJECT CONDITIONS

- A. Underground facilities exist at this site. Contractor shall take all necessary precautions to protect said facilities. Notify Engineer of any deviation in facility location from that which is shown on the drawings.
- B. Keep dust to a minimum at removal site and on haul roads. Use sprinklers or water trucks as necessary or as directed by the Engineer.
- C. Ensure safety of persons in demolition area. Provide temporary barricades as required.

#### 1.11 CLOSEOUT SUBMITTALS

- A. As specified in Section 01 77 00 - Project Closeout.
- B. Show all capped and abandoned utility terminations and location of remaining facilities on project Record Drawings.



## **PART 2 PRODUCTS**

### **2.1 REPAIR AND RESTORATION MATERIALS**

- A. Concrete shall be as specified in Section 03 30 00 - Cast in Place Concrete.
- B. Pipe and fittings shall be as specified in Section 33 01 00 – Pipe and Fittings.
- C. Painting and coatings shall be as specified in Section 09 90 00.

### **2.2 MATERIALS**

- A. Salvaged Materials: No Materials to be salvaged.
- B. Materials and items demolished and not designated for reuse, salvage or transfer to the Owner, as well as all debris, rubbish and other materials resulting from the demolition operations, shall become the property of the Contractor and shall be removed from the site within 48 hours of demolition.
- C. Storage or sale of the removed items will not be permitted at the site.

## **PART 3 EXECUTION**

### **3.1 INSPECTION**

- A. Prior to demolition, inspect the site conditions, verifying all governing dimensions, notes and specification. Notify the Engineer of any errors or omissions in the contract documents.
- B. Make such explorations and probes as are necessary to ascertain any required protection measures before proceeding with the demolition and removal work.

### **3.2 PREPARATION**

- A. Protect existing, appurtenances, structures, which are not to be demolished.
  - 1. Protect all buildings, structures, utilities, and facilities to remain.

### **3.3 DEMOLITION REQUIREMENTS**

- A. Conduct demolition to protect and minimize damage to structures and existing facilities.
- B. Execute the work in a careful, orderly and safe manner, with the least possible disturbance. Cease operations immediately if adjacent facilities appear to be endangered. Do not resume operations until corrective measures have been taken.
- C. Equipment Bases
  - 1. Remove completely and concrete bases. Sawcut concrete to form neat, linear lines for patching,

2. If called out for removal, pump seal water lines shall be capped as close as possible to isolation valves.
3. Provide temporary blind flanges as required to maintain operations.

#### 3.4 *DISPOSAL*

- A. As specified in Section 2.2 - Materials.

#### 3.5 *MEASUREMENT AND PAYMENT*

- A. The Contractor shall include all costs for the above items in the various bid items, and no separate payment will be made therefor.

### **END OF SECTION**

## **SECTION 03 20 00**

### **CONCRETE REINFORCING**

#### **PART 1 GENERAL**

##### **1.1 WORK INCLUDED**

- A. Work required under this section consists of furnishing all materials, supplies, equipment, tools, transportation, and facilities, and performing all labor and services incidental to furnishing and installing concrete reinforcing work as described in this section of the Specifications, shown on the accompanying Plans, or reasonably implied therefrom, except as hereinafter specifically excluded. The work shall include, but is not necessarily limited to:
  - 1. Provide reinforcing work, complete as indicated, specified and required.
  - 2. Furnishing and placing bar and mesh reinforcing for cast-in-place concrete.

##### **1.2 RELATED WORK**

- A. Section 03 11 00 – Concrete Formwork
- B. Section 03 30 00 – Cast-In-Place Concrete

##### **1.3 REFERENCES**

- A. Industry Codes and Standards
  - 1. American Society for Testing and Materials (ASTM)
    - a. A1064/A1064M Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete
    - b. A615/A615M Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
  - 2. California Building Code (CBC)
  - 3. Concrete Reinforcing Steel Institute (CRSI)
    - a. Manual of Standard Practice (CRSI Manual)
  - 4. American Concrete Institute (ACI)
    - a. ACI 301 Specification for Structural Concrete
    - b. Publication SP-66 ACI Detailing Manual

##### **1.4 SUBMITTALS**

- A. As specified in Section 01 33 00 – Submittals.

Concrete Reinforcing  
03 20 00–1

- B. Provide material certificates, shop fabrication and placement drawings, and schedule for all reinforcing steel, imbedded items, form release and curing compounds.
  - 1. Shop Drawings. Submit shop drawings for reinforcing steel prepared in accordance with ACI Detailing Manual, Publication SP-66. Show layouts, bending diagrams, assembly diagrams, dimensioned types and locations of all bar laps and splices, and shapes, dimensions, and details of bar reinforcing and accessories. Include layout plans for bar supports and chairs, with typical details. Dimensions and quantities shown on the shop drawings are the responsibility of the Contractor and Engineer's approval of shop drawings shall not constitute approval of dimensions and quantities thereon.

## 1.5 QUALITY ASSURANCE

- A. Code Requirements. Unless otherwise specified all work specified herein and as shown on the drawings shall conform to the applicable requirements of the California Building Code (CBC).
- B. Standard. Reinforcing steel installations shall conform to the current specification requirements of the Concrete Reinforcing Steel Institute "Manual of Standard Practice" (herein referred to as the CRSI Manual) except as otherwise indicated or specified.
- C. Field Quality Control. All continuous inspections shall be performed by "Special Inspectors" qualified and approved by Governing Building Code Authority or inspector as otherwise qualified and approved by the Owner. Reports as required by Code shall be prepared and submitted to Owner, Building Department, Design Professional in Responsible Charge and Contractor.
  - 1. Inspection of Reinforcing. Provide 48-hour advance notice to permit inspection of in-place reinforcement prior to closing forms and refer to applicable requirements of Section 03 30 00 of these Specifications.
  - 2. Concreting Operations. During concrete placing, assign construction personnel to inspect reinforcement and maintain bars in correct positions at each pour location.

## PART 2 PRODUCTS

### 2.1 REINFORCING

- A. Deformed bars conforming to ASTM A615, Grade 60 Type "S."

### 2.2 TIE WIRE

- A. Annealed steel, 16-gage minimum.

### 2.3 COUPLER SPLICE DEVICES

- A. Reinforcing bar coupler/splice devices which bear current ICC Evaluation Report Number, and which develop at least 125 percent of bar yield strength in tension may
- Concrete Reinforcing  
03 20 00-2

be used with Owner's approval in lieu of lapped bar-type splices. Submit for Owner's approval in each instance.

## **2.4 DOWELS**

- A. Where and as designated on Drawings, provide reinforcing bar dowels in new work and for anchorage to existing concrete. For anchorage where shown or required to existing construction, use non-shrink epoxy type grout or deferred bolting devices as approved in each instance and conforming to "Product" Article requirements of Section 05 05 20 of these Specifications.

## **2.5 FABRICATION AND DELIVERY**

- A. Conform to CRSI Manual Chapters 6 and 7 except as otherwise indicated or specified. Bundle reinforcement and tag with suitable identification to facilitate sorting and placing, and transport and store at site so as not to damage material. Keep a sufficient supply of tested, approved, and proper reinforcement at site to avoid delays.
- B. Bending and Forming. Fabricate bars of indicated size and accurately form to shapes and lengths indicated and required by methods not injurious to materials. Do not heat reinforcement for bending. Bars with kinks or bends not scheduled will be rejected.

# **PART 3 EXECUTION**

## **3.1 PLACING**

- A. Unless otherwise indicated or specified, conform to CRSI Manual Chapter 8 including placement tolerances, except no reduction of concrete cover is allowable for bars at concrete surfaces exposed in liquid or water-containing structures.
- B. Cleaning. Before placing reinforcing, and again before concrete is placed, clean reinforcement of loose mill scale, oil, or other coating that might destroy or reduce bond. Do not allow form coatings, release agents, bond breaker, or curing compound to contact reinforcement.
- C. Concrete Coverage over reinforcing bars shall be in accordance with ACI 318 (current edition) unless otherwise shown on the Drawings. Measure the coverage to the outer edge of ties, stirrups, bar spacers, hangers, and like items, and detail and fabricate the reinforcing accordingly.
- D. Securing in Place. Accurately place reinforcement and securely wire tie in precise position at all points where bars cross. Tie stirrups to bars at both top and bottom. Bend ends of binding wires inward, allowing no encroachment on the concrete cover; exercise special care at surfaces to remain exposed and unpainted. Support bars in accordance with CRSI Manual Chapter 3, Specifications for Placing Bar Supports, using approved chairs and supports.
- E. Splices. Provide wired contact lap splices unless otherwise indicated or approved. Provide lap lengths as indicated on the Drawings.

1. Vertical Bars. Except as specifically detailed or otherwise indicated, splicing of vertical bars in concrete is not permitted except at the indicated or approved horizontal construction joints or as otherwise specifically detailed.
  2. Horizontal Bars. Except as specifically detailed or otherwise indicated, splicing of horizontal bars in concrete is not permitted except at the indicated or approved vertical construction joints or as otherwise specifically detailed.
- F. Welding. Welding of reinforcing bars may be permitted on case-by-case basis. All welding of reinforcing bars will be approved by the Engineers.
- G. Additional Reinforcing. Provide additional reinforcing bars at sleeves and openings as indicated on the Drawings.

## **END OF SECTION**

## **SECTION 03 30 53**

### **CAST-IN-PLACE CONCRETE**

#### **PART 1 - GENERAL**

##### **1.1 DESCRIPTION**

- A. This section specifies cast-in-place structural concrete and material and mixes for other concrete.

##### **1.2 RELATED WORK**

- A. Materials testing and inspection during construction: TESTING LABORATORY SERVICES.
- B. Section 03 20 00 Concrete Reinforcing

##### **1.3 TOLERANCES**

- A. ACI 117.
- B. Slab Finishes: ACI 117, F-number method in accordance with ASTM E1155.

##### **1.4 REGULATORY REQUIREMENTS**

- A. ACI SP-66 - ACI Detailing Manual.
- B. ACI 318 - Building Code Requirements for Reinforced Concrete.

##### **1.5 SUBMITTALS**

- A. Submit in accordance with Section 01 33 00, Submittals.
- B. Concrete Mix Design.
- C. Shop Drawings:
  - 1. Submit Steel Reinforcement Shop Drawings and Product Data to include all information necessary for fabrication and placement of reinforcement.
  - 2. Indicate grades of reinforcing steel.
  - 3. Clearly indicate the splice length for every size and type of bar used.
  - 4. Indicate the type, size and location of all accessories required for the proper assembly, placement and support of the reinforcement.
  - 5. Provide layout drawings of all floor slabs and formed concrete indicating control and expansion joints.

Dimensions and quantities shown on the shop drawings are the responsibility of the Contractor and Engineer's approval of shop drawings shall not constitute approval of dimensions and quantities thereon.

- D. Manufacturer's Certificates: Air-entraining admixture, chemical admixtures, curing compounds.

#### 1.6 APPLICABLE PUBLICATIONS

- A. Publications listed below form a part of this specification to extent referenced. Publications are referenced in text by the basic designation only. Comply with applicable provisions and recommendations of the following, except as otherwise shown or specified.
- B. American Concrete Institute (ACI):
- |                 |   |
|-----------------|---|
| 117-10          | Tolerances for Concrete Construction and Materials and Commentary |
| 211.1-91(R2009) | Selecting Proportions for Normal, Heavyweight, and Mass Concrete  |
| 211.2-98(R2004) | Selecting Proportions for Structural Lightweight Concrete         |
| 301-10          | Structural Concrete   |
| 305R-10         | Guide to Hot Weather Concreting                                   |
| 306R-10         | Guide to Cold Weather Concreting                                  |
| SP-66-04        | ACI Detailing Manual  |
| 318/318M-11     | Building Code Requirements for Structural Concrete and Commentary |
| 347R-04         | Guide to Formwork for Concrete                                    |
- C. American Society for Testing and Materials (ASTM):
- |                |  |
|----------------|--|
| A185/A185M-07  | Steel Welded Wire Reinforcement, Plain, for Concrete               |
| A615/A615M-12  | Deformed and Plain Carbon Steel Bars for Concrete Reinforcement    |
| A996/A996M-09b | Rail Steel and Axle Steel Deformed Bars for Concrete Reinforcement |
| C31/C31M-12    | Making and Curing Concrete Test Specimens in the Field             |
| C33/C33M-13    | Concrete Aggregates  |
| C39/C39M-12a   | Compressive Strength of Cylindrical Concrete Specimens             |
| C94/C94M-13    | Ready Mixed Concrete   |
| C143/C143M-12  | Slump of Hydraulic Cement Concrete                                 |
| C150/C150M-12  | Portland Cement  |



C171-07	Sheet Materials for Curing Concrete
C172/C172M-10	Sampling Freshly Mixed Concrete
C173/C173M-12	Air Content of Freshly Mixed Concrete by the Volumetric Method
C192/C192M-12a	Making and Curing Concrete Test Specimens in the Laboratory
C231/C231M-10	Air Content of Freshly Mixed Concrete by the Pressure Method
C260/C260M-10a	Air-Entraining Admixtures for Concrete
C330/C330M-09	Lightweight Aggregates for Structural Concrete
C494/C494M-13	Chemical Admixtures for Concrete
C618-12a	Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
D1751-04(R2008)	Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types)
E1155-96(2008)	Determining FF Floor Flatness and FL Floor Levelness Numbers

## **PART 2 - PRODUCTS**

### **2.1 FORMS**

- A. Wood, plywood, metal, or other materials, approved by ENGINEER, of grade or type suitable to obtain type of finish specified.
- B. Form releasing agents to be commercial formulations that will not bond with, stain or adversely affect concrete surfaces. Agents must not impair subsequent treatment of concrete surfaces depending upon bond or adhesion nor impede the wetting of surfaces to be cured with water or curing compounds. If special form liners are to be used, follow the recommendation of the form coating manufacturer. Submit manufacturer's recommendation on method and rate of application of form releasing agents.

### **2.2 MATERIALS**

- A. Portland Cement: ASTM C150, Type V or Type II Low Alkali meeting physical requirement of Type V.
- B. Fly Ash: ASTM C618, Class C or F including supplementary optional requirements relating to reactive aggregates and alkalis, and loss on ignition (LOI) not to exceed 5 percent.

- C. Coarse Aggregate: ASTM C33, Size 67. Size 467 may be used for footings and walls over 12 inches thick. Provide Size 7 coarse aggregate for applied topping and metal pan stair fill.
- D. Fine Aggregate: ASTM C33.
- E. Lightweight Aggregate for Structural Concrete: ASTM C330, Table 1
- F. Mixing Water: Fresh, clean, and potable.
- G. Air-Entraining Admixture: ASTM C260.
- H. Chemical Admixtures: ASTM C494.
- I. Vapor Barrier: ASTM E1745, 0.38 mm (15 mil).
- J. Reinforcing Steel: ASTM A615 or ASTM A996, deformed, Grade 60.
- K. Welded Wire Fabric: ASTM A185.
- L. Expansion Joint Filler: ASTM D1751.
- M. Sheet Materials for Curing Concrete: ASTM C171.
- N. Grout, Non-Shrinking: Premixed ferrous or non-ferrous, mixed and applied in accordance with manufacturer's recommendations. Grout cannot show settlement or vertical drying shrinkage at 3 days or thereafter based on initial measurement made at time of placement. Grout must produce a compressive strength of minimum 2500 psi at 3 days and minimum 5000 psi at 28 days.

## 2.3 CONCRETE MIXES

- A. Design of concrete mixes using materials specified as set forth under Option C of ASTM C94.
- B. Compressive strength at 28 days: Minimum 4000 psi . All concrete shall be air entrained.
- C. Establish strength of concrete by testing prior to beginning concreting operation. Test consists of average of three cylinders made and cured in accordance with ASTM C192 and tested in accordance with ASTM C39.
- D. Maximum slump for vibrated concrete is 4 inches tested in accordance with ASTM C143.
- E. Cement and water factor (See Table I):

**TABLE I - CEMENT AND WATER FACTORS FOR CONCRETE**

Concrete: Strength	Non-Air-Entrained		Air-Entrained	
Min. 28 Day Comp. Str. MPa (psi)	Min. Cement kg/m <sup>3</sup> (lbs/c. yd)	Max. Water Cement Ratio	Min. Cement kg/m <sup>3</sup> (lbs/c. yd)	Max. Water Cement Ratio
35 (5000) <sup>1,3</sup>	375 (630)	0.45	385 (650)	0.40
30 (4000) <sup>1,3</sup>	325 (550)	0.55	340 (570)	0.50
25 (3000) <sup>1,3</sup>	280 (470)	0.65	290 (490)	0.55
25 (3000) <sup>1,2</sup>	300 (500)	*	310 (520)	*

1. If trial mixes are used, the proposed mix design must achieve a compressive strength 1200 psi in excess of f<sub>c</sub>. For concrete strengths above 5000 psi, the proposed mix design must achieve a compressive strength 1400 psi in excess of f<sub>c</sub>.
2. Lightweight Structural Concrete. Pump mixes may require higher cement values.
3. For concrete exposed to high sulfate content soils maximum water cement ratio is 0.44.
- \* Determined by Laboratory in accordance with ACI 211.1 for normal concrete or ACI 211.2 for lightweight structural concrete.

F. Air-entrainment is required for all exterior concrete. Air content must conform with ACI 318 Table 4.4.1.

## 2.4 BATCHING AND MIXING

- A. Store, batch, and mix materials as specified in ASTM C94.
  1. Job-Mixed: Mix in a batch mixer in manner specified for stationary mixers in ASTM C94.
  2. Ready-Mixed: Comply with ASTM C94, except use of non-agitating equipment for transporting concrete to the site will not be permitted. With each load of concrete delivered to project, ready-mixed concrete producer must furnish, in duplicate, certification as required by ASTM C94.
  3. Mixing structural lightweight concrete: Charge mixer with 2/3 of total mixing water and all the aggregate. Mix ingredients for not less than 30 seconds in a stationary mixer or not less than 10 revolutions at mixing speed in a truck mixer. Add remaining mixing water and other ingredients and continue mixing. Above procedure may be modified as recommended by aggregate producer.

## **PART 3 - EXECUTION**

### **3.1 FORMWORK**

- A. Installation conforms to ACI 347. Sufficiently tight to hold concrete without leakage, sufficiently braced to withstand vibration of concrete, and to carry, without appreciable deflection while remaining within allowable construction tolerances, all dead and live loads to which they may be subjected.
- B. Treating and Wetting: Treat or wet contact forms as follows:
  - 1. Coat plywood and board forms with non-staining form sealer. In hot weather cool forms by wetting with cool water just before concrete is placed.
  - 2. Clean and coat removable metal forms with light form oil before reinforcement is placed. In hot weather, cool metal forms by thoroughly wetting with water just before placing concrete.
  - 3. Use sealer on reused plywood forms as specified for new material.
- C. Inserts, sleeves, and similar items: Flashing reglets, masonry ties, anchors, inserts, wires, hangers, sleeves, boxes for floor hinges and other items specified as furnished under this and other sections of specifications are required to be in their final position at time concrete is placed - properly located, accurately positioned, built into construction, and maintained securely in place.
- D. Construction Tolerances:
  - 1. Set and maintain concrete formwork to assure erection of completed work within tolerances specified to accommodate installation or other rough and finish materials.
  - 2. Properly brace the forms so the set concrete is correct within the allowable construction tolerances when the forms are removed.
  - 3. Remedial work necessary for correcting installations that is in excess of allowable tolerances are the responsibility of the Contractor.
  - 4. Erected work that exceeds specified tolerance limits must be remedied or removed and replaced, at no additional cost to the Government.
  - 5. Any remediation work is subject to approval of the ENGINEER in advance of the work.
  - 6. Permissible surface irregularities for various classes of materials are defined as "finishes" in specification sections covering individual materials. They are to be distinguished from tolerances specified which are applicable to surface irregularities of structural elements.

### **3.2 REINFORCEMENT**

- A. Details of concrete reinforcement, unless otherwise shown, in accordance with ACI 318 and ACI SP-66. Support and securely tie reinforcing steel to prevent displacement during placing of concrete.

### 3.3 VAPOR BARRIER

- A. Except where membrane waterproofing is required, place interior concrete slabs on a continuous vapor barrier.
- B. Place 100 mm (4 inches) of fine granular fill over the vapor barrier to act as a blotter for concrete slab.
- C. Lap joints 150 mm (6 inches) and seal with a compatible pressure-sensitive tape.
- D. Patch punctures and tears.

### 3.4 PLACING CONCRETE

- A. Remove water from excavations before concrete is placed. Remove hardened concrete, debris and other foreign materials from interior of forms, and from inside of mixing and conveying equipment. Obtain approval of ENGINEER before placing concrete. Provide screeds at required elevations for concrete slabs.
- B. Roughen and clean set concrete free from laitance, foreign matter, and loose particles, before placing new concrete on or against concrete which has set.
- C. Convey concrete from mixer to final place of deposit by method which will prevent segregation or loss of ingredients. Do not deposit in work concrete that has attained its initial set or has contained its water or cement more than 1 1/2 hours. Do not allow concrete to drop freely more than 1500 mm (5 feet) in unexposed work nor more than 900 mm (3 feet) in exposed work. Place and consolidate concrete in horizontal layers not exceeding 300 mm (12 inches) in thickness. Consolidate concrete by spading, rodding, and mechanical vibrator. Do not secure vibrator to forms or reinforcement. Provide vibration continuously with placing of concrete.
- D. Hot weather placing of concrete: Follow recommendations of ACI 305R to prevent problems in the manufacturing, placing, and curing of concrete that can adversely affect the properties and serviceability of the hardened concrete.
- E. Cold weather placing of concrete: Follow recommendations of ACI 306R, to prevent freezing of thin sections less than 300 mm (12 inches) and to permit concrete to gain strength properly, except that use of calcium chloride cannot be used without written approval from ENGINEER.

### 3.5 PROTECTION AND CURING

- A. Protect exposed surfaces of concrete from premature drying, wash by rain or running water, wind, mechanical injury, and excessively hot or cold temperature. Curing method is subject to approval by ENGINEER.

### 3.6 FORM REMOVAL

- A. Forms remain in place until concrete has a sufficient strength to carry its own weight and loads supported. Removal of forms at any time is the Contractor's sole responsibility.

### 3.7 SURFACE PREPARATION

- A. Immediately remove loose materials, after forms have been removed and work has been examined and approved by ENGINEER, and patch all stone pockets, surface honeycomb, or similar deficiencies with cement mortar made with 1 part Portland cement and 2 to 3 parts sand.

### 3.8 FINISHES

#### A. Vertical and Overhead Surface Finishes:

1. Unfinished Areas: Vertical and overhead concrete surfaces exposed in unfinished areas, above suspended ceilings in manholes, and other unfinished areas exposed or concealed will not require additional finishing.
2. Interior and Exterior Exposed Areas (to be painted): Fins, burrs and similar projections on surface must be knocked off flush by mechanical means approved by ENGINEER and rubbed lightly with a fine abrasive stone or hone. Use an ample amount of water during rubbing without working up a lather of mortar or changing texture of concrete.
3. Interior and Exterior Exposed Areas (finished): Provide grout finish of uniform color and smooth finish treated as follows:
  - a. After concrete has hardened and laitance, fins and burrs have been removed, scrub concrete with wire brushes. Clean stained concrete surfaces by use of a hone or stone.
  - b. Apply grout composed of 1-part Portland cement and 1-part clean, fine sand (smaller than 600 micro-m (No. 30) sieve). Work grout into surface of concrete with cork floats or fiber brushes until all pits and honeycomb are filled.
  - c. After grout has hardened, but still plastic, remove surplus grout with a sponge rubber float and by rubbing with clean burlap.
  - d. In hot, dry weather use a fog spray to keep grout wet during setting period. Complete finish for any area in same day. Confine limits of finished areas to natural breaks in wall surface. Do not leave grout on concrete surface overnight.

#### B. Slab Finishes:

1. Scratch Finish: Slab surfaces to receive a bonded applied cementitious application must be thoroughly raked or wire broomed after partial setting (within 2 hours after placing) to roughen surface and ensure a permanent bond between base slab and applied cementitious materials.
2. Floating: Allow water brought to surface by float used for rough finishing to evaporate before surface is again floated or troweled. Do not sprinkle dry cement on surface to absorb water.
3. Float Finish: Screen and float ramps, stair treads, and platforms, both interior and exterior, equipment pads, and slabs to receive non-cementitious materials, except as

specified, to a smooth dense finish. Check for alignment using a straightedge or template after first floating and while surface is still soft. Correct high spots by cutting down with a trowel or similar tool and correct low spots by filling in with material of same composition as floor finish. Remove any surface projections on floated finish by rubbing or dry grinding. Refloat the slab to a uniform sandy texture.

4. Steel Trowel Finish: Applied toppings, concrete surfaces to receive resilient floor covering or carpet, future floor roof and all monolithic concrete floor slabs exposed in finished work and for which no other finish is shown or specified must be steel troweled. Delay final steel troweling to secure a smooth, dense surface as long as possible, generally when the surface can no longer be dented with finger. During final troweling, tilt steel trowel at a slight angle and exert heavy pressure on trowel to compact cement paste and form a dense, smooth surface. Finished surface must be free of trowel marks, uniform in texture and appearance.
5. Broom Finish: Finish all exterior slabs, ramps, and stair treads with a bristle brush moistened with clear water after the surfaces have been floated.
6. Finished slab flatness (FF) and levelness (FL) values must comply with the following minimum requirements:

Slab on Grade & Shored Suspended Slabs	Unshored Suspended Slabs
Specified overall value $F_F 25/F_L 20$	Specified overall value $F_F 25$
Minimum local value $F_F 17/F_L 15$	Minimum local value $F_F 17$

### 3.9 SURFACE TREATMENTS

- A. Mix and apply surface treatments in accordance with manufacturer's printed instructions.
- B. Liquid Densifier/Sealer: Use on all exposed concrete floors and concrete floors to receive carpeting except those specified to receive non-slip finish.
- C. Non-Slip Finish: Except where safety nosing and tread coverings are shown, apply non-slip abrasive aggregate to treads and platforms of all concrete steps and stairs, and to surfaces of exterior concrete ramps and platforms. Broadcast aggregate uniformly over concrete surface. Trowel concrete surface to smooth dense finish. After curing, rub the treated surface with abrasive brick and water sufficiently to slightly expose abrasive aggregate.

### 3.10 APPLIED TOPPING

- A. Separate concrete topping with thickness and strength shown with only enough water to insure a stiff, workable, plastic mix.
- B. Continuously place applied topping until entire section is complete, struck off with straightedge, compact by rolling or tamping, float and steel trowel to a hard smooth finish.

### **3.11 RESURFACING FLOORS**

- A. Remove existing flooring, in areas to receive resurfacing, to expose existing structural slab and to extend not less than 25 mm (1 inch) below new finished floor level. Prepare exposed structural slab surface by roughening, broom cleaning, wetting, and grouting. Apply topping as specified.

### **3.12 RETAINING WALLS**

- A. Provide concrete for retaining walls as shown and air-entrained.
- B. Install and construct expansion and contraction joints, waterstops, weep holes, reinforcement and railing sleeves as shown.
- C. Finish exposed surfaces to match adjacent concrete surfaces, new or existing.
- D. Place porous backfill as shown.

### **3.13 PRECAST CONCRETE ITEMS**

- A. Cast precast concrete items, not specified elsewhere, using 25 MPa (3000 psi) air-entrained concrete to shapes and dimensions shown. Finish surfaces to match corresponding adjacent concrete surfaces. Reinforce with steel as necessary for safe handling and erection.

**END OF SECTION**



## **SECTION 05 05 20**

### **BOLTS, WASHERS AND ANCHORS**

#### **PART 1 GENERAL**

##### **1.1 WORK INCLUDED**

- A. This section describes materials and installation of anchor bolts, connecting bolts, washers, drilled anchors, epoxy anchors, screw anchors, and stainless steel fasteners.

##### **1.2 DESIGN CRITERIA**

- A. Structural Connections: AISC Specification for Structural Steel Buildings (June 22, 2010), except connection details as shown in the Drawings.

##### **1.3 REFERENCES**

- A. American Institute of Steel Construction (AISC)
- B. American Society for Testing and Materials (ASTM)
- C. Research Council on Structural Connections (RCSC)

##### **1.4 SUBMITTALS**

- A. As specified in Section 01 33 00 – Submittals.
- B. Submit manufacturer's catalog data and ICC Evaluation Service Reports for bolts, washers, and concrete anchors. Show dimensions and reference materials of construction by ASTM designation and grade.
- C. Submit anchor bolt layout drawings.

#### **PART 2 PRODUCTS**

##### **2.1 GENERAL**

- A. Anchor bolts drilled anchors and epoxy anchors shall be stainless steel.

##### **2.2 ANCHOR BOLTS**

- A. Stainless Steel anchor bolt size, length and thread length shall be as shown on the Drawings.
- B. Bolts shall be provided with a head and two washers of a minimum of ¼ inch thick and 2 inches square. One washer shall be embedded in the concrete at the head of the bolt.

- C. Stainless Steel anchor bolts shall be ASTM A193, Grade B8 or ASTM F593 Type 316.
- D. Nuts shall be ASTM A194, Grade 316 or ASTM F594, Type 316. Use ASTM A194 nuts with ASTM A193 bolts; use ASTM F594 nuts with ASTM F593 bolts.
- E. Provide washer for each nut and bolt head. Washers shall be of the same material as the nuts.

### 2.3 CONNECTION BOLTS

- A. Stainless Steel connection bolts shall be ASTM A193, Grade B8 or ASTM F593, Type 316.
- B. Nuts shall be ASTM A194, Grade 316 or ASTM F594, Type 316. Use ASTM A194 nuts with ASTM A193 bolts; use ASTM F594 nuts with ASTM F593 bolts.
- C. Provide washer for each nut and bolt head. Washers shall be of the same material as the nuts.

### 2.4 STAINLESS STEEL BOLTS

- A. Stainless steel bolts shall be ASTM A193, Grade B8 or ASTM F593, Type 316.
- B. Nuts shall be ASTM A194, Grade 316 or ASTM F594, Type 316. Use ASTM A194 nuts with ASTM A193 bolts; use ASTM F594 nuts with ASTM F593 bolts.
- C. Provide washer for each nut and bolthead. Washers shall be of the same material as the nuts.

### 2.5 LUBRICANT FOR STAINLESS STEEL BOLTS AND NUTS

- A. Lubricant shall be chloride free and shall be RAMCO TG-50, Anti-Seize by RAMCO, Huskey™ Lube-O-Seal by HUSK-ITT Corporation, or equal.

### 2.6 WASHERS

- A. Stainless steel washers shall be Type 316.

### 2.7 DRILLED ANCHORS

- A. Unless otherwise indicated in the Drawings, drilled anchors shall be Type 316 stainless steel wedge anchors as manufactured by ITW Red Head Trubolt+, Kwik Bolt TZ by Hilti, or equal. Anchors shall have ICC-approved testing.

### 2.8 EPOXY ANCHORS

- A. Epoxy anchors in concrete shall be Type 316 stainless steel threaded rod adhesive anchors.
- B. Adhesive shall be ITW Red Head Epcon S7, Hilti HIT RE 500-SD, or equal. Epoxy anchor assemblies shall be ICC approved.

## **PART 3 EXECUTION**

### **3.1 STORAGE OF MATERIALS**

- A. Store material, either plain or fabricated, above ground on platforms, skids, or other supports. Keep material free from dirt, grease, and other foreign matter and protect from corrosion.

### **3.2 INSTALLING CONNECTION BOLTS**

- A. Use stainless steel bolts to connect structural members and ductile iron pipe flanges. Bolt holes in structural members shall be 1/16 inch in diameter larger than bolt size, unless otherwise noted by the manufacturer. Place cast-in-place bolt locations in the field to match equipment base plates.
- B. Slotted holes, if required in the Drawings, shall conform to AISC 360-10, Chapter J, Section J3, Table J3.3.
- C. Drive bolts accurately into the holes without damaging the thread. Protect boltheads from damage during driving. Boltheads and nuts or washers shall rest squarely against the metal. Where bolts are to be used on beveled surfaces having slopes greater than 1 in 20 with a plane normal to the bolt axis, provide beveled washers to give full bearing to the head or nut. Where self-locking nuts are not furnished, bolt threads shall be upset to prevent the nuts from backing off.
- D. Bolts shall be of the length that will extend entirely through but not more than 1/4 inch beyond the nuts. Draw boltheads and nuts tight against the work.

### **3.3 INSTALLATION OF STAINLESS STEEL BOLTS AND NUTS**

- A. Prior to assembly, coat threaded portions of stainless steel bolts and nuts with lubricant.

### **3.4 INSTALLING ANCHOR BOLTS**

- A. Anchor bolts shall be delivered in time to permit setting before the structural concrete is placed. Anchor bolts which are cast in place in concrete shall be provided with sufficient threads to permit a nut to be installed on the concrete side of the concrete form or supporting template.
- B. Preset bolts and anchors using templates. Do not use concrete anchors set in holes drilled in the concrete after the concrete is placed for mechanical equipment. Anchor bolts and threaded rod anchors which are to be epoxy grouted shall be clean and free of coatings that would weaken the bond with epoxy.
- C. Two nuts, a jam nut, and a washer shall be furnished for anchor bolts and threaded rod anchors indicated on the drawings to have locknuts; two nuts and a washer shall be furnished for all other anchor bolts.
- D. Anti-seize thread lubricant shall be liberally applied to projecting, threaded portions of stainless steel anchor bolts and threaded rod anchors immediately before final installation and tightening of the nuts.

Bolts, Washers, and Anchors  
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- E. For static items such as storage tanks, use preset anchor bolts or drilled anchors with ICC report data.
- F. After anchor bolts have been embedded, protect projecting threads by applying grease and having the nuts installed until the time of installation of the equipment or metalwork.

### **3.5 *INSTALLING DRILLED ANCHORS***

- A. Minimum depth of embedment of drilled mechanical anchors shall be as recommended by the manufacturer, but no less than that shown in the Drawings.
- B. Prepare holes for drilled anchors in accordance with the anchor manufacturer's recommendations prior to installation.

### **3.6 *INSTALLING EXPOXY ANCHORS***

- A. Epoxy anchors shall be clean and free of coatings that would weaken the bond with epoxy.
- B. Minimum depth of embedment of epoxy anchors shall be as recommended by the manufacturer, but no less than that shown in the Drawings.
- C. Prepare holes for epoxy anchors in accordance with the anchor and epoxy manufacturer's recommendations prior to installation.

## **END OF SECTION**

## **SECTION 09 90 00**

### **PAINTING AND COATING**

#### **PART 1 GENERAL**

##### **1.1 WORK INCLUDED**

- A. Field painting including surface preparation, surface protection, clean up, and/or other appurtenant work.
- B. All labor, materials, tools and equipment, and incidentals necessary and required for their completion.
- C. All pipe, fittings, equipment, and structures are to be field coated except for those specific exceptions contained in this specification or identified on the drawings. The painting schedule included at the end of this specification summarizes the surfaces to be coated, the required surface preparation, and the coating systems to be applied. Coating notes on the drawings are used to show exceptions to the schedules, to extend the limits of coating systems, or to clarify or show details for application of the coating systems.

##### **1.2 RELATED WORK**

- A. Section 05 50 00 – Fabricated Metal
- B. Section 33 01 00 – Pipe & Fittings

##### **1.3 SUBMITTALS**

- A. As specified in Section 01 33 00 – Submittals.
  - 1. Product technical data including:
    - a. Acknowledgement that products submitted meet requirements of standards referenced.
    - b. Performance criteria as required by the Engineer to determine quality.
    - c. Manufacturer's installation instructions and environmental parameters.
    - d. Material Safety Data Sheets.
    - e. Color samples.

#### 1.4 AIR QUALITY REGULATORY COMPLIANCE

- A. All paint shall conform to the applicable air quality regulations at the point of application. Any paint material which cannot be guaranteed by the manufacturer to comply, whether specified by product designation or not, shall not be used.
- B. The volatile organic compound (VOC) of coatings materials limits set forth in Rule 460.1 of the San Joaquin Valley Unified Air Pollution Control District shall apply to this project. The manufacturers' products listed in paragraphs 09900-3.01 and 3.02 have been selected on the basis of their apparent compliance with Rule 460.1; however, it shall remain the Contractor's responsibility to ensure that all coatings materials furnished are in compliance with all regulatory agencies at the time of application.
- C. The product listed may meet the VOC requirement in the unthinned (as shipped) condition but may exceed the VOC requirement if thinned to the manufacturer's allowable recommendations. In this situation, the product is not to be thinned beyond the limit indicated in Rule 460.1, and if the product cannot be suitably thinned for the intended application method or temperature requirements, it will be necessary to use another manufacturer's product subject to acceptance by the Engineer.
- D. All paint used for intermediate and finish coats shall be guaranteed by the paint manufacturer to be fumeproof. Paint shall be lead-free and mercury-free.

#### 1.5 QUALITY OF WORK

- A. All finishes shall be applied by skilled workmen in accordance with the best practices and standards of the painting trade. Brushes, rollers, all equipment, and the techniques used in applying finishes shall be of sufficient quality to assure the specified results. Work not conforming to this Specification shall be corrected by touching up or refinishing as directed by the Engineer.
- B. It is the purpose and intent of this Specification to cover the complete paint finishing of all exterior and interior surfaces as scheduled or specified and all surfaces which normally require a paint finish for corrosion resistance, weather protection, finished appearance or utility. Finished surfaces shall be of the type of finish, color sheen film thickness and quality specified.
- C. It shall be the responsibility of the Contractor to ensure the compatibility of the field painting products which will be in contact with each other or which will be applied over shop painted or previously painted surfaces. Paint used in successive field coats shall be produced by the same manufacturer. Paint used in the first field coat over shop or field primed surfaces, or previously painted surfaces shall cause no wrinkling, lifting, or other damage to underlying paint.

#### 1.6 DELIVERY AND STORAGE

- A. Painting materials shall be delivered to site in manufacturer's original containers with labels intact and seals unbroken. Painting materials and equipment shall be stored

and protected against freezing and mixed in rooms assigned for that purpose. No chemicals, unauthorized thinners, or other materials, not included in the paint formulation shall be added to the paint for any purpose. All necessary precautions shall be taken to prevent fire. Rags or waste soiled with paint shall be removed from premises at end of each day's work or shall be stored in covered metal containers.

### 1.7 EQUIVALENT PRODUCTS

- A. Whenever a coating is specified using the name of a proprietary product or the name of a manufacturer or vendor, the specified coating shall be understood as establishing the type and quality of coating desired.
- B. Other manufacturers' products will be accepted provided sufficient information is submitted to allow the Engineer to determine that the coatings proposed are equivalent to those named. Proposed coatings shall be submitted for review in accordance with the Section 01 33 00 - Submittals.
- C. Requests for review of equivalency will not be accepted from anyone except the Contractor, and such requests will not be considered until after the contract has been awarded.
- D. Specific products for various applications shall be as specified in Part 2. In addition to the products named in Part 2, equivalent products of the following manufacturers will also be considered for equivalency:

Ameron  
Carboline  
Devoe  
PPG (Pittsburgh)  
Sherwin Williams Co.  
Sinclair  
Tnemec  
Valspar

- E. Contractor shall provide verification that equivalent products are acceptable for the desired application.

### 1.8 REFERENCE STANDARDS

- A. SSPC – Society of Protective Coatings, Pittsburgh, PA
- B. ASTM – American Society for Testing and Materials, West Conshohocken, PA

## **PART 2 PRODUCTS**

### **2.1 GENERAL**

- A. All paint shall be the product of a recognized manufacturer engaged in the manufacture of painting material. All paints for wood and metal surfaces shall be well-ground and shall not skin, liver, curdle, or body excessively in the containers.
- B. The paint shall not show laps or unevenness of color or texture. When applied to vertical surfaces, it shall not sag.
- C. All exposed surfaces, including sides and edges, shall be painted. Hangers, brackets, fastenings, and other miscellaneous items shall be painted with the same system as the adjacent material. Paint systems shall be in addition to shop primers.
- D. Paint shall be stored inside and shall be protected against freezing. No adulterant, unauthorized thinner, or other material not included in the paint formation shall be added to the paint for any purpose.
- E. Paint used in successive field coats shall be produced by the same manufacturer. Paint used in the first field coat over shop painted or previously painted surfaces shall cause no wrinkling, lifting, or other damage to underlying paint. Any paint system shall be the product of a single manufacturer.
- F. All paint used for intermediate and finish coats shall be guaranteed by the paint manufacturer to be lead-free, mercury-free, and fumeproof. Where paint materials are referenced to Federal or military specifications, the reference shall define general type and quality required but is not intended to limit acceptable materials to an exact formulation.
- G. For each paint, the Contractor shall follow the paint manufacturer's specific application instructions. Upon the Engineer's request, the Contractor shall furnish the following application instructions.
  - 1. Surface preparation recommendations.
  - 2. Type of primer to be used.
  - 3. Maximum dry and wet mil thickness per coat.
  - 4. Minimum and maximum curing times between coats.
  - 5. Thinner to be used with each paint.
  - 6. Ventilation requirements.
  - 7. Atmospheric conditions during which the paint shall not be applied.
  - 8. Allowable methods of application.



9. Maximum allowable moisture content and minimum age of plaster, concrete and wood surfaces at time of paint application.
  10. Curing time before submergence in water.
- H. The minimum number of coats and minimum total dry mil thickness of the system for each surface shall be as specified in the paint schedule.

## 2.2 FUSION BONDED EPOXY LINING AND COATING

- A. Lining and coating shall be 100% solids, thermosetting, fusion-bonded, dry powder epoxy resin. Provide Scotchkote 134 or 206N, Lilly Powder Coatings "Pipeclad 1500 Red", or equal. Epoxy lining and coating shall meet or exceed the following requirements:

Hardness (Minimum):	Barcol 17 (ASTM D 2583) Rockwell 50 ("M" Scale)
Abrasion Resistance (Minimum)	1,000 cycles: 0.05 gram removed 5,000 cycles: 0.115 gram removed ASTM D 1044, Tabor CS 17 wheel 1,000 gram weight
Adhesion (Minimum)	3,000 psi (Elcometer)
Tensile Strength	7,300 psi (ASTM D 2370)

## 2.3 PAINTING SCHEDULE

- A. A schedule is appended to this section listing the surface preparation, primer, finish, and dry mil thickness to be used on each surface to be coated.

## 2.4 PRIMERS AND PRETREATMENT

- A. P-1 Epoxy Primer - Minimum dry thickness 4 mils. Devoe "Bar Rust 235H", Sherwin Williams "Macropoxy 646 FC Epoxy B58-600", or Tnemec 69-1211 "Hi-Build Expoxoline."
- B. P-2 Rust Inhibitive, non-submerged - Minimum dry thickness 3 mils. Devoe "Devran 203 Waterborne Epoxy Primer", Sherwin Williams "Macropoxy 646 FC Epoxy B58-600" or Tnemec 135 "Chem Build."

## 2.5 INTERMEDIATE AND FINISH PAINTS

- A. F-1 Epoxy Resin - Minimum dry thickness 5 mils. Devoe "Bar Rust 235H", Sherwin Williams "Macropoxy 646 FC Epoxy B58-600", or Tnemec 69 "Hi-Build" epoxy.
- B. F-2 Gloss Acrylic Emulsion - Minimum dry thickness 2.0 mils Devoe "Devflex 4208 Waterborne Acrylic Enamel", Sherwin Williams "Shercryl Hi Performance Acrylic Gloss B66-300", or Tnemec 1028.

- C. F-3 Semi-gloss Acrylic Emulsion - Minimum dry thickness 2.5 mils Devco "Devflex 4216 HP Waterborne", Sherwin Williams "Shercryl Hi Performance Acrylic Semi-Gloss B66-350", or Tnemec 1029 "Tuf Cryl".

## 2.6 SHOP COATINGS

- A. Shop coatings shall be applied as indicated in the individual equipment and component specifications.
- B. Electric motors, speed reducers, starters, and other self-contained or enclosed components shall be shop primed or finished with a high grade, oil resistant enamel suitable for top coating in the field with an alkyd enamel.
- C. All shop coatings shall be compatible with the paint system specified in the Painting Schedule contained at the end of this specification.

## 2.7 SURFACES NOT TO BE PAINTED

- A. Except as otherwise required or directed, the following surfaces are to be left unpainted:
  - 1. Exposed surfaces of aluminum (aluminum in contact with concrete is to be coated).
  - 2. Polished or finished stainless steel. Unfinished stainless steel shall be painted.
  - 3. Nickel or chromium.
  - 4. Galvanized surfaces, except piping, conduit, electrical conduit, pipe supports, fasteners, hangers, bracing, brackets, and accessories.
  - 5. Rubber and plastics, including fiberglass reinforced plastics.
  - 6. Precast concrete.

## 2.8 SYSTEM IDENTIFICATION

- A. Above Grade Piping: Provide markers on piping which is either exposed or concealed in accessible spaces. For piping systems, other than drain and vent lines, indicate the fluid conveyed or its abbreviation, either by preprinted marker or stenciled marking, and include arrows to show the direction of flow. Comply with ANSI A13.1 for colors. Locate markers at ends of lines, near major branches and other interruptions including equipment in the line, where lines pass through floor, walls or ceilings or otherwise pass into inaccessible spaces, and at 50' maximum intervals along exposed portion of lines. Marking of short branches and repetitive branches for equipment connections is not required.
- B. Equipment: All equipment shall be identified with a plastic laminated, engraved nameplate which bears the unit mark number as indicated on the drawings (e.g. AC-

- 4). Provide 1/2" high lettering, white on black background. Nameplates shall be permanently secured to the unit.
- C. Valves: Provide valve tags on all valves of each piping system, excluding check valves, valves within equipment, faucets, stops and shut-off valves at fixtures and other repetitive terminal units. Provide brass tags or plastic laminate tags. Prepare and submit a tagged valve schedule, listing each valve by tag number, location, and piping service. Mount in glazed frame where directed.

## 2.9 COLORS

- A. All colors and shades of colors shall be as specifically indicated in the specifications or plans, or, where not specifically indicated, selected from the manufacturer's standard color samples by the Owner. In general, paint color shall match existing piping and equipment for the same process within the same room as the work.
- B. Electrical conduit shall be painted as directed by the Engineer.

## PART 3 EXECUTION

### 3.1 PRELIMINARY EXAMINATION

- A. Notify the Engineer in writing of any uncorrected defects in surfaces to be painted. Do not proceed with the finishing of surfaces in question until any discrepancies are corrected. No work on any surface shall be started unless the surface has been inspected and approved for painting by the Engineer.

### 3.2 SURFACE PREPARATION

- A. The Contractor shall prepare the surfaces to be coated as specified under the paint schedule. Any surfaces to be coated which are not listed under the paint schedule shall be prepared in accordance with the manufacturer's instructions for the material to be applied.
- B. All grease, oil, dirt, and other contaminants which may affect the bond between the coating and the surface shall be removed by a cleaning agent which will leave the surface clean and dry.
- C. Cleaning and painting operations shall be performed in a manner which will prevent dust or other contaminants from getting on freshly painted surfaces.
- D. Surfaces shall be free of cracks, pits, projections, or other imperfections which would prevent the formation of smooth, unbroken paint film, except for concrete block construction where a rough surface is an inherent characteristic.
- E. When applying touch-up paint, or repairing previously painted surfaces, the surfaces to be painted shall be cleaned and sanded or wire brushed in such a manner that the edges of adjacent paint are feathered or otherwise smoothed so that they will

not be noticeable when painted. All paint made brittle or otherwise damaged by heat or welding shall be completely removed.

- F. Hardware items such as bolts, screws, washers, springs, and grease fittings need not be cleaned prior to painting if there is no evidence of dirt, corrosion, or foreign material.
- G. All galvanized surfaces shall have a metal conditioner applied prior to the first prime coat.
- H. All surfaces to be finished shall be clean and dry before any materials are applied. Use a moisture meter to determine moisture content as follows. The moisture content shall be less than 8% for concrete or plaster.
  - 1. Metal Surfaces - Where noted, the surface preparation for steel and other metals refer to the specifications for surface preparation by the latest revision of the Steel Structures Painting Council. All metal work shall be cleaned of grease, oil, and dirt by solvent cleaning (SSPC-SP1). Do not use hydrocarbon based solvents for cleaning prior to use of acrylic materials.
    - a. Method SP-2: Surface shall be wire brushed where required to remove loose rust and dirt, etc. (SSPC-SP2)
    - b. Method SP-3: Removal of loose rust, loose mill scale and other detrimental foreign matter to degree specified by power wire brushing, power impact tools or power sanders. (SSPC-SP3)
    - c. Method SP-6: Blast cleaning until at least two-thirds of each element of surface area is free of all visible residues. (SSPC-SP6)
    - d. Method SP-10: Sandblast to near white condition. This method shall remove all rust and scale, but streaks and shadows in the metal will be acceptable. (SSPC-SP10)

### 3.3 PAINT APPLICATION

- A. Apply all finishes evenly, free from sags, runs, crawls, brush marks, skips or other defects. Apply products at the proper consistency and do not thin or otherwise alter them except in accordance with the manufacturer's printed directions. All coats shall be applied in such manner as to produce an even film of uniform thickness completely coating all corners and crevices. All painting shall be done by thoroughly experienced workmen.
- B. Care shall be exercised during spraying to hold the nozzle sufficiently close to the surfaces being painted to avoid excessive evaporation of the volatile constituents and loss of material into the air, or the bridging over of crevices and corners. Spray equipment shall be equipped with mechanical agitators, pressure gauges, and pressure regulators. Nozzles shall be of proper size. Floors, roofs, and other adjacent areas and installations shall be satisfactorily protected by drop cloths or other precautionary measures. All over-spray shall be removed by approved

methods or the affected surface repainted. Care shall be exercised to avoid lapping of paint on hardware of other unscheduled surfaces.

- C. Each coat of material shall be thoroughly dry before the application of a succeeding coat. In no case shall paint be applied at a rate of coverage per gallon which is greater than the maximum rate recommended by the manufacturer. Paint films showing sags, checks, blisters, teardrops, or fat edges will not be accepted. Paint containing any of these defects shall be entirely removed and the surface repainted.
- D. Sandpaper epoxy, enamels, and varnishes lightly between coats and dust thoroughly before the application of a succeeding coat.
- E. If the finish coat is to be colored, the prime coat and the intermediate coat shall be tinted to have a slight variation in color from each other and from the finish coat.

### 3.4 PRIMING

- A. Edges, corners, crevices, welds, and bolts shall be given a brush coat of primer before the specified spot or touch-up painting of metal surfaces. Special attention shall be given to filling all crevices with paint.
- B. Abraded and otherwise damaged portions of shop applied paint shall be repainted. Welded seams and other uncoated surfaces, heads and nuts of field installed bolts, and surfaces where paint has been damaged by heat, shall be given a coat of the specified primer. This patch, spot, or touch-up painting shall be completed, and shall be dry and hard, before additional paint is applied.

### 3.5 MIXING AND THINNING

- A. Paint shall be thoroughly mixed each time any is withdrawn from the container. Paint containers shall be kept tightly closed except while paint is being withdrawn.
- B. Unless otherwise authorized, all paint shall be factory mixed to proper consistency and viscosity for hot weather application without thinning. Thinning will be permitted only as necessary to obtain recommended coverage at lower application temperatures. In no case shall the wet film thickness of applied paint be reduced, by addition of paint thinner or otherwise, below that represented by the recommended coverage rate.

### 3.6 FILM THICKNESS FOR FERROUS METALS

- A. It is intended that the dry film thickness and the continuity of painted ferrous metal surfaces be subject to continual field check by the Engineer. Dry film thickness shall be measured by the Contractor, using an approved Thickness Gauge, at locations selected by Engineer. Testing equipment provided shall be provided by Contractor and kept on site.
- B. Measurement of Dry Coating Thickness shall conform with paint application Standard SSPC-PA2
- C. Thickness and Holiday Checking –

1. Thickness of coatings and paint shall be checked with a non-destructive, magnetic type thickness gauge.
  2. Holiday Checking of all interior coated surfaces shall be tested with an approved holiday detection device. Non-destructive holiday detectors shall not exceed 100 volts nor shall destructive holiday detectors exceed the voltage recommended by the manufacturer of the coating system. For thicknesses between 10 and 20 mils (0.25mm and 0.50mm) a non-sudsing type wetting agent such as Kodak Photo-Flo, shall be added to the water prior to wetting the detector sponge. All pinholes shall be marked, repaired in accordance with the manufacturer's printed recommendations and re-tested. No pinholes or other irregularities will be permitted in the final coating. Holiday detection devices shall be operated in the presence of the Engineer.
- D. Continuity shall be tested by a low voltage-wet sponge per RPO 188. Contractor shall perform continuity tests as required by the Engineer on surfaces that will be submerged.

### **3.7 ATMOSPHERIC CONDITIONS**

- A. Apply all material to dry and properly prepared surfaces when weather conditions are favorable for painting. No materials shall be applied when the temperature of the materials is below 50 degrees F, or when the temperature of the air, surface to be painted or substrate, is below (or likely to fall below) 50 degrees F. Final ruling on the favorability of weather conditions shall be in accordance with the recommendations of the manufacturer and/or the Engineer.
- B. No coating or paint shall be applied to wet or damp surfaces, in rain, snow, fog, or mist, when the steel temperature or surrounding air temperature is less than 5 degrees above the dew point, nor in conditions not recommended by the manufacturer

### **3.8 REPAIRING DAMAGED PAINT ON EQUIPMENT**

- A. Painted surfaces on equipment, which have become damaged prior to acceptance by the Owner, shall be repainted with the same or equivalent paint used in the original application.

### **3.9 PROTECTION OF SURFACES**

- A. Throughout the work the Contractor shall use drop cloths, masking tapes, and other suitable measures to protect all surfaces from accidental spraying, splattering, or spilling of paint. Contractor shall be liable for and shall correct and repair any damaged condition resulting from its operations or from the operations of all those who are responsible to the Contractor during the time its work is in progress and until the work is accepted. In case bituminous paints are spilled or dropped on any material except metals, the spots shall, after surface cleaning, be spot painted with aluminum paint prior to applying the specified paint. Any exposed concrete or masonry not specified to be painted which is damaged by paint shall be either

removed and rebuilt or, where so authorized by the Owner, painted with two coats of masonry paint.

### 3.10 CLEANUP

All cloths and cotton waste which might constitute a fire hazard shall be placed in metal containers or destroyed at the end of each work day. Upon completion of the work all staging, scaffolding and containers shall be removed from the site or destroyed in a manner approved by the Engineer.

### 3.11 PAINTING SCHEDULE

<u>SYSTEM</u>	<u>SURFACE</u>	<u>FINISH</u>			
		<u>SURF. PREP.</u>	<u>PRIME COAT</u>	<u>2<sup>ND</sup> COAT</u>	<u>3<sup>RD</sup> COAT</u>
1.	New ferrous metal in submerged or damp environment including all submerged mechanical components.	SP-10	P-1	F-1	F-1
2.	All exterior exposed new structural and miscellaneous steel. All exterior exposed surfaces of new piping, pumps, motors, electrical equipment, and other unsubmerged mechanical and structural items.	SP-2 or 3	P-2	F-2	F-2
3.	All surfaces of new structural and miscellaneous steel pipe, ductile iron pipe, pumps, motors, and electrical equipment panels exposed inside building.	SP-6	P-2	F-3	F-3

3.12 *When conflicting painting specifications or requirements are encountered in the contract documents, the more restrictive specifications or requirements shall be required.*

**END OF SECTION**

## **SECTION 11 00 00**

### **GENERAL EQUIPMENT REQUIREMENTS**

#### **PART 1 GENERAL**

##### **1.1 SCOPE**

- A. All equipment installed under this Contract shall conform to the general stipulations set forth in this section except as otherwise specified in other sections.

##### **1.2 RELATED WORK**

- A. Section 05 05 20 – Bolts, Washers and Anchors
- B. Section 05 50 00 – Fabricated Metal
- C. Section 09 90 00 – Painting and Coating
- D. Section 16 00 00 - Electrical

##### **1.3 COORDINATION**

- A. Contractor shall coordinate all details of the equipment with other related parts of the Work, including verification that all structures, piping, wiring, and equipment components are compatible. Contractor shall be responsible for all structural and other alterations in the Work required to accommodate equipment differing in dimensions or other characteristics from that contemplated in the Contract Drawings or Specifications.

##### **1.4 WORKMANSHIP AND MATERIALS**

- A. Contractor shall guarantee all equipment against faulty or inadequate design, improper assembly or erection, defective workmanship or materials, and leakage, breakage, or other failure. Materials shall be suitable for service conditions.
- B. All equipment shall be designed, fabricated, and assembled in accordance with recognized and acceptable engineering and shop practice. Individual parts shall be manufactured to standard sizes and gages so that repair parts, furnished at any time, can be installed in the field. Like parts of duplicate units shall be interchangeable. Equipment shall not have been in service at any time prior to delivery, except as required by the specifications for factory testing prior to shipping.

##### **1.5 LUBRICATION**

- A. Lubricants, of the type recommended by the equipment manufacturer, shall be provided in sufficient quantity to fill all lubricant reservoirs and to replace all consumption during testing, startup, and operation prior to acceptance of equipment by Owner.



- B. Lubrication fill and drain points shall be convenient and accessible. Oil drains and fill openings shall be easily accessible from the normal operating area or platform. Drains shall allow for convenient collection of waste oil in containers from the normal operating area or platform without removing the unit from its normal installed position.

## **PART 2 PRODUCTS**

### **2.1 ELECTRIC MOTORS**

- A. Unless otherwise specified, motors furnished with equipment shall meet the following requirements:
  - 1. Three phase motors used in conjunction with variable frequency drives (VFDs) shall be inverter duty, have Class F insulation with a Class B temperature rise at rated nameplate horsepower, and 1.15 service factor.
  - 2. Explosion proof motors shall be furnished as required by applicable codes and where indicated.

### **2.2 SAFETY GUARDS**

- A. All belt or chain drives, fan blades, couplings, and other moving or rotating parts shall be covered on all sides by an OSHA compliant safety guard. Each guard shall be designed for easy installation and removal. All necessary supports and accessories shall be provided for each guard.

### **2.3 ANCHOR BOLTS**

- A. Equipment suppliers shall furnish suitable anchor bolts for each item of equipment. Anchor bolts, together with templates or setting drawings, shall be delivered sufficiently early to permit setting the anchor bolts when the structural concrete is placed. Anchor bolts shall comply with Section 05 05 20 of these Specifications and, unless otherwise specified, shall have a minimum diameter of 5/8 inch and shall be stainless steel.
- B. Unless otherwise indicated or specified, anchor bolts for items of equipment mounted on baseplates shall be long enough to permit 1-1/2 inches of grout beneath the baseplate and to provide adequate anchorage into structural concrete.

### **2.4 EQUIPMENT BASES**

- A. Unless otherwise indicated or specified, all equipment shall be installed on concrete bases as shown on the plans. Cast iron or welded steel baseplates shall be provided for pumps, compressors, and other equipment. Each unit and its drive assembly shall be supported on a single baseplate of neat design. Baseplates shall have pads for anchoring all components and adequate grout holes. Baseplates shall be anchored to the concrete base with suitable anchor bolts and the space beneath filled with grout as specified in the grout section.

## **2.5 SPECIAL TOOLS AND ACCESSORIES**

- A. Equipment requiring periodic repair and adjustment shall be furnished complete with all special tools, instruments, and accessories required for proper maintenance. Equipment requiring special devices for lifting or handling shall be furnished complete with those devices.

## **2.6 SHOP PAINTING**

- A. All steel and iron surfaces shall be protected by suitable paint or coatings in accordance with Section 09 90 00 – Painting and Coating of these Specifications. Surfaces which will be inaccessible after assembly shall be protected for the life of the equipment. Exposed surfaces shall be finished, thoroughly cleaned, and filled as necessary to provide a smooth, uniform base for painting. Electric motors, speed reducers, starters, and other self-contained or enclosed components shall be shop primed or finished with a high-grade, oil-resistant enamel suitable for top coating in the field with an alkyd enamel. Coatings shall be suitable for the environment where the equipment is installed.
- B. Surfaces to be painted after installation shall be prepared for painting as recommended by the paint manufacturer for the intended service, and then shop painted with one or more coats of the specified primer.
  - 1. All shop primers shall be compatible with the paint system specified in Section 09 90 00 – Painting for the particular item.
- C. Machined, polished, and nonferrous surfaces which are not to be painted shall be coated with rust preventive compound, such as Houghton "Rust Veto", Rust-Oleum "R-9" or Engineer approved equivalent, in accordance with Section 09 90 00 of these Specifications.

## **PART 3 EXECUTION**

### **3.1 PREPARATION FOR SHIPMENT**

- A. All equipment shall be suitably packaged to facilitate handling and protect against damage during transit and storage. All equipment shall be boxed, crated, or otherwise completely enclosed and protected during shipment, handling, and storage. All equipment shall be protected from exposure to the elements and shall be kept dry at all times.
- B. Painted surfaces shall be protected against impact, abrasion, discoloration, and other damage. Painted surfaces which are damaged prior to acceptance of equipment shall be repainted to the satisfaction of Engineer.
- C. Grease and lubricating oil shall be applied to all bearings and similar items.
- D. Each item of equipment shall be tagged or marked as identified in the delivery schedule or on the Shop Drawings. Complete packing lists and bills of material shall be included with each shipment.

### 3.2 STORAGE

- A. Upon delivery, all equipment and materials shall immediately be stored and protected until installed in the Work.
- B. Pumps, motors, electrical equipment, and all equipment with antifriction or sleeve bearings shall be stored in weathertight structures maintained at a temperature above 60° F. Equipment, controls, and insulation shall be protected against moisture and water damage. All space heaters furnished in equipment shall be connected and operated continuously.
- C. Equipment and materials shall not show any pitting, rust, decay, or other deleterious effects of storage when installed in the Work.

### 3.3 INSTALLATION AND OPERATION

- A. Equipment shall not be installed or operated except by, or with the guidance of, qualified personnel having the knowledge and experience necessary to obtain proper results. When so specified, or when employees of Contractor or his Subcontractors are not qualified, such personnel shall be field representatives of the manufacturer of the equipment or materials being installed.
- B. Qualified field representatives shall be provided by the equipment manufacturers as required to perform all manufacturer's field services called for in the Specifications. Manufacturer's field representatives shall observe, instruct, guide, and direct Contractor's erection or installation procedures, or perform an installation check, as required. The field representative shall revisit the site as often as necessary to attain installation satisfactory to Engineer.
- C. All equipment installed under this Contract shall be placed into successful operation according to the written instructions of the manufacturer or the instructions of the manufacturer's field representative. All required adjustments, tests, operation checks, and other startup activity shall be provided.
- D. Acceptance of Work in connection with the installation of equipment furnished by others will be subject to approval of the field representative. Contractor shall be responsible for planning, supervising, and executing the installation of Work, and the approval or acceptance of Engineer or the field representative will not relieve Contractor of responsibility for defective Work.

### 3.4 OBSERVATION OF PERFORMANCE TESTS

- A. Where the Specifications require the presence of Engineer, initial tests shall be observed or witnessed by Engineer. Owner shall be reimbursed by Contractor for all costs of subsequent visits by Engineer to witness or observe incomplete tests, retesting, or subsequent tests.

### 3.5 WARRANTY

- A. A written manufacturer's warranty shall be provided for equipment supplied under this contract. The warranty shall be for a minimum of one (1) year or as specified in

accordance with other Sections of the contract documents, after the date the equipment is accepted for use by the Owner by filing of the notice of completion, unless otherwise agreed in writing by Owner. The warranty shall cover all defects or failures of materials, design, or workmanship that occur as the result of normal operation and service.

**END OF SECTION**

## **SECTION 16000**

### **ELECTRICAL**

#### **PART 1 - GENERAL**

##### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

##### **1.02 SUMMARY**

Work in general includes, but is not limited to, the following:

- A. New 800-amp switchboard at 120/208V 3 Phase 4 Wire.
- B. Connect (3) 100-HP blowers.
- C. Connect existing MCC.
- D. Provide new mini power zone.
- E. New controls and disconnects.
- F. Grounding of equipment, etc.
- G. Complete power system as shown on Drawings and specified herein, including conduit, wiring, circuit breakers and other items necessary for complete and operable systems.
- H. Electrical connection of equipment as shown on the Drawings.

##### **1.03 SITE VISITS, COORDINATION OF CONTRACT DOCUMENTS, VERIFICATION OF DIMENSIONS**

- A. Examine existing conditions as applicable. Become acquainted with Specifications and Drawings for all portions of the Project. Notify City's Representative of apparent discrepancies and of inconsistency between the Specifications and the existing conditions. Secure and follow City's Representative's instructions. The Drawings serve as working drawings only, indicating diagrammatically the general layout of the systems and their various components and equipment.
- B. Scaled and figured dimensions are approximate and are given for estimate purposes only. Carefully check and verify dimensions and sizes in order to determine if equipment and materials will fit together and if the dimensions of the assembly are compatible with the space provided. Where equipment is furnished by others, verify that dimensions and requirements for assembly are compatible with the space provided before proceeding with the roughing-in connections. Field verifications of locations shown on Drawings are

necessary since actual locations, distances, mounting heights, etc., may be affected by field conditions. The right is reserved to make reasonable changes in locations of equipment or other features shown on Drawings prior to rough-in without additional cost to the City.

- C. Where apparatus and equipment have been indicated on the Drawings, dimensions have been taken from typical equipment of the class indicated. Carefully check the Drawings to see that the contemplated equipment will fit into the spaces provided, regardless of whether or not it may have been approved for quality and utility as an equal.
- D. Rough in all equipment, fixtures, etc., as designated on the Drawings and as specified herein. The Drawings indicate only the approximate location of rough-ins. The exact rough-in locations must be determined from large-scale certified Drawings. The Contractor shall obtain all certified rough-in information before progressing with any Work for rough-in connections.
- E. Coordinate requirements of equipment furnished by others, prior to ordering and installation.
- F. No allowance will be made for extra expense due to failure or neglect to follow foregoing directives.

#### 1.04 RULES AND REGULATIONS

- A. Materials and installation shall be in accordance with current rules and requirements of California Code of Regulations and local codes and ordinances including, but not necessarily limited to, the following:
  - 1. The California Electrical Code.
  - 2. Title 8, Chapter 4, California Code of Regulations (Low Voltage Electrical Safety Orders).
  - 3. California State Fire Marshal.
  - 4. Certified Ballast Manufacturers' Association (CBM).
  - 5. Uniform Building Code.
  - 6. NEMA (National Electrical Manufacturers Assoc.).
  - 7. IEEE (Institute of Electrical and Electronic Engineers).
  - 8. IPCEA (Insulated Power Cable Engineers Association).
  - 9. ANSI (American National Standards Institute).
  - 10. ASTM (American Society for Testing and Materials).
  - 11. UL (Underwriters Laboratories).
  - 12. OSHA (Occupational Safety & Health Act) Federal.
  - 13. Title 24, CCR.
  - 14. NFPA (National Fire Protection Association).
  - 15. NESC (National Electrical Safety Code).
- B. Where these Specifications call for a higher standard than the above-mentioned rules, the Specifications shall govern.

- C. Should there be any direct conflict between the above mentioned rules and these Specifications, the rules shall govern.
- D. Nothing in the Drawings or Specifications is to be construed to permit Work not conforming to the rules, codes, and regulations.
- E. All materials utilized shall be new and the best of their respective grades or kinds.

#### 1.05 DEFINITIONS

- A. Article 100 of the California Electrical Code shall serve as a guide for definitions.
- B. Industry standard definitions.
- C. Specific Definitions:
  - 1. Concealed: Hidden from sight, as in trenches, chases, hollow construction, above furred spaces, suspended ceilings (acoustical or plastic type), or exposed to view only in tunnels, attics, shafts, crawl spaces, unfinished spaces, or other areas solely for maintenance and repair.
  - 2. Exposed: Not concealed.
  - 3. Unfinished Space: A room or space that is ordinarily accessible only to building maintenance personnel, a room noted on the "Finish Schedule" with exposed and unpainted construction for walls, floor or ceilings, or specifically mentioned as "unfinished".
  - 4. Finished Spaces: Any space ordinarily visible to the visiting public, including exterior areas.

#### 1.06 RECOGNIZED TEST LAB

- A. All equipment specified or installed under this project shall be listed by a recognized test lab and bear that label of approval.

#### 1.07 RECORD DRAWINGS

- A. Include under this Work complete and accurate record information both during construction and before final acceptance by the City, and costs associated therewith shall be included under this Work.
- B. Obtain from the City's Representative, at cost, a complete set of applicable blue-line prints. On these prints, systematically and accurately keep an up-to-date and legible dimensional record of Work installed differently from the location or manner indicated by the Drawings, as well as exact locations of stub-outs and hidden or underground features. Have these Drawings readily available for reference and review. When job status permits, submit them to the City's Representative and amend or correct and re-submit if requested.

- C. When the above information is complete and acceptable, deliver Record Drawings to the City's Representative.

#### 1.08 SUBMITTALS - SUBSTITUTIONS

- A. Bids shall be based on Drawings and Specifications and references exactly as shown except as substitutions are permitted under terms of the Instructions to Bidders. Acceptance by the City's Representative of a variation or alternate shall not of itself waive other requirements of the Drawings and Specifications.
- B. Before a substitute is used, it shall be equal in quality and utility to the material or make of equipment specified, and furthermore, shall be suitable for the particular application. The decision of the City's Representative as to the quality and utility of the substitute offered shall be final.
- C. When submitting a substitute to a specified item, provide complete data for both the specified item and the substitute. Complete data includes:
  - 1. Catalog cuts with complete dimensions, characteristics, electrical properties, Underwriter's Laboratory listing, harmonics, light output, mounting and support requirements.
  - 2. Calculations, photometrics, system load data, energy effect on system, etc.

If the substitute is not deemed equal in both utility and quality to the specified item, the specified item will be approved and it shall be provided by the Contractor.
- D. Submit in one package complete systematized lists of equipment and Drawings, catalog cuts, brochures, capacity tables and curves, descriptive information, performance data and guarantees and warranties referenced either to applicable Specification paragraphs or to item numbers as shown on the Drawings, or both. Submit six (6) copies.
- E. Do not order or install equipment until submittals have been reviewed and approved.
- F. Where accepted materials or equipment other than is specified or shown on the Drawings require redesign of structural, architectural, electrical or mechanical features or layouts, such changes shall be made by, or at the expense of the Contractor - all subject to complete review by the City's Representative.
- G. Because of the contingencies involved, review and general acceptance of proposed substitutes shall not relieve the Contractor's responsibility under this Work for ensuring in all respects the suitability of such materials and equipment for the particular Project requirements.

#### 1.09 SHOP DRAWINGS

- A. Prepare shop Drawings of items as required by the Engineer or by Drawings and Specifications; submit six (6) copies of each to the Engineer as part of the submittal



package, sufficiently in advance of construction, if necessary. Shop drawings and submittal shall be in accordance with Section 01 33 00.

- B. The shop drawings shall be submitted sufficiently in advance of construction to allow time for review and for resubmission, if necessary.
- C. Submit all shop drawings and data at one time for equipment provided under this Section. The complete electrical shop drawings shall be bound in one pamphlet or binder indexed to this Section.
- D. Shop drawing submittals processed are not change orders. The purpose of shop drawing submittals by the Contractor is to demonstrate that the Contractor understands the design concept; he demonstrates his understanding by indicating which equipment and material he intends to furnish and install and by detailing the fabrication and installation methods he intends to use. If deviations, discrepancies or conflicts between shop Drawings and Specifications are discovered, either prior to or after shop drawing submittals are processed, the design Drawings and Specifications shall control and shall be followed.
- E. Manufacturers' data and dimension sheets shall be submitted giving all pertinent physical and engineering data including weights, cross-sections and maintenance instructions. Standard items of equipment such as receptacles, switches, plates, etc., which are cataloged items, shall be listed by manufacturer.
- F. Index all submittals and reference to these Specifications.

#### 1.10 COMPLETION DATA

- A. Submit completion data to the City's Representative in acceptable quantity and form before requesting a final inspection. Such submittal shall be corrected, amended, or completed before final acceptance of the Work.
- B. Include Record Drawings, maintenance manuals, and data; test results; control and wiring diagrams.

#### 1.11 CUTTING, PATCHING, AND REPAIRING

- A. Cutting, patching, and framing of wood members to accommodate this Work shall be done by the Contractor and shall be in conformance with Sections 613 and 617 (F) and (K), Title 24, California Code of Regulations. All such cutting, patching and framing shall be approved by the City's Representative.
- B. Do minor miscellaneous cutting, drilling, and patching necessary and normally required at the time of actually installing this Work. Patching shall be of the same materials, workmanship, and finish as the original or surrounding Work to the complete satisfaction of the City's Representative. Comply with Division-1 CUTTING AND PATCHING Section.
- C. Adequately inform other trades of openings and framing requirements for this Work and provide suitable instructions for establishing locations and sizes of openings or sleeves

so that these may be provided in the proper location at the proper time. Concrete shall not be cut, except where approved by the City's Representative.

1.12 SIMILARITY OF MATERIALS

- A. Unless specified otherwise, fixtures, fittings, hangers, and respective type features and equipment, of a similar type or having similar operative or functional features, shall be of the same manufacturer throughout the Project.

1.13 MANUFACTURERS' DIRECTIONS

- A. Follow manufacturers' directions and recommendations in all cases where the manufacturers' equipment or articles are used for this Work. Compliance with the manufacturer's direction is a requirement for that product's listing with a recognized test lab.

1.14 VERIFICATION OF DIMENSIONS

- A. Scaled and figured dimensions are approximate only. Before proceeding with Work, carefully check and verify dimensions, etc., on architectural Drawings, and be responsible for properly fitting equipment and materials together and to the structure in spaces provided.
- B. Drawings are essentially diagrammatic, and many offsets, bends, pull boxes, special fittings, and exact locations are not indicated. Carefully study Drawings and premises in order to determine best methods, exact locations, routes, building obstructions, etc., and install apparatus and equipment in available locations. Install apparatus and equipment in manner and locations to avoid obstructions, preserve headroom, and keep openings and passageways clear.

1.15 IDENTIFICATION OF EQUIPMENT

- A. All electrical equipment shall be labeled, tagged, stamped, or otherwise identified in accordance with the following schedule:
  - 1. Branch Circuit Panelboards:
    - a. Panel identification shall be stenciled with 2" high white paint letters on inside face of door. In addition to panel designation, panels on emergency power shall also be stenciled to indicate the branch of the emergency system to which they are connected.
    - b. Circuit directory shall be a two-column, typewritten card under a plastic cover inside the door. Each odd numbered circuit shall be in sequence in the left column and the even numbered circuit in the right column (e.g., 1, 3, 5..., 2, 4, 6...). Each circuit shall be identified as to the use and room name(s) or area(s). Confirm room names and/or room numbers with the Engineer prior to project completion. Circuit breaker identification shall be by permanently

installed metal numbers or plastic numbers under acrylic plastic. "Paste-on" numbers will not be accepted. Refer to "Panelboards" section for additional requirements.

2. Distribution Panelboards: Identification shall be with 1" x 4" laminated, white on black, micarta nameplates on each major component, each with name and/or number of unit and other pertinent data as required. Emergency power distribution panels shall be identified with white on red micarta nameplates. Letters shall be no less than 3/8" high.
3. Circuit breakers and safety switches shall be identified by number and name with 3/4" x 1-1/2" laminated micarta nameplates with 3/16" high letters mounted adjacent to circuit breaker or switch.
4. Miscellaneous equipment (electrical), such as individually mounted starters, step-down transformers, pull boxes, junction boxes, etc., shall be identified as required by the use of such equipment with plates as for distribution panelboards.
5. In general, the installed nameplates, as herein called for shall also clearly indicate its use, area served, circuit identification, voltage and any other useful data.
6. All auxiliary systems, including communications, shall be labeled to indicate function.
7. Motor control and motor control centers shall be labeled with the identification given on drawing schedules.

#### 1.16 CLOSING IN OF UNREVIEWED WORK

- A. Do not allow or cause any of this Work to be covered up or enclosed until it has been reviewed by the City's Representative. Should any of this Work be enclosed or covered up before such review, uncover the Work and make repairs with such materials as may be necessary to restore the Work and that of the other trades to its original and proper condition at no additional cost to the City.

#### 1.17 SAFETY PRECAUTIONS

- A. It is intended that within the scope of this Work during construction and until final acceptance, strict attention be given to matters pertaining to public safety and to safety of the construction workers and complementing personnel; and to other health and building safety requirements as specified and indicated including, but not limited to: Protection of openings in fire-rated construction; clearances from and/or protection of combustibles; proper securement for fixtures, equipment materials; method of performing the Work, operational and safety check of electrical devices, etc.; erection and maintenance of suitable barriers, protective devices, lights and warning signs and adequate provisions for storage and protection of Work, materials and equipment.

- B. It is understood that the responsibility for the proper attention to the above stipulations is included under this Work.

#### 1.18 MOUNTING

- A. Provide materials and accessories necessary to properly mount and secure equipment furnished and/or installed under the electrical Work. This includes but is not limited to such items as conduit, outlets, junction boxes, switches, relays, disconnect switches, lighting fixtures, cabinets, and transformers.
- B. Inserts and Anchors shall be:
  - 1. Furnished and installed for support of Work under this Division.
  - 2. Adjustable concrete hanger inserts installed in new concrete work as manufactured by Grinnell or as approved.
  - 3. Installed in locations as approved by Engineer.
  - 4. Expandable lead type anchors installed in existing concrete with minimum surface damage, as manufactured by Ackerman-Johnson, Pierce, Diamond or Hilti.
  - 5. Toggle bolts, or "molly anchors", where installed in concrete block walls.
  - 6. Complete with 3/16" or heavier steel backup plate where used to support heavy items. Through-bolts or backup plate shall be concealed from view, except as otherwise indicated.
- C. Mounting of equipment that is of such size as to be freestanding and that equipment which cannot conveniently be located on walls, such as motor starters, etc., shall be rigidly supported on a framework of galvanized steel angle, Unistrut or as approved.
- D. Furnish and install sleeves for the installation of Work under all sections of this Division. Sleeves through floors, roof and walls shall be as described in conduit section.

#### 1.19 ACCESSIBILITY

- A. Install all control devices or other specialties requiring reading, adjustment, inspection, repairs, removal or replacement conveniently and accessibly throughout the project.
- B. All required access doors or panels in walls and ceilings are to be furnished and installed as part of the Work under this Division.
- C. Provide doors which pierce a fire separation with the same fire rating as the separation.
- D. Refer to "Finish Schedule" for types of walls and ceiling in each area and architectural Drawings for rated wall construction.

- E. Coordinate Work of the various sections to locate specialties requiring accessibility with others to avoid unnecessary duplication of access doors.

#### 1.20 TESTS

- A. Perform electrical tests as required or directed. Provide materials, labor, and equipment necessary for performances of these tests, and at completion of the Work perform a complete "in-service" operation of the entire electrical and power system to show compliance with the Drawings and Specifications. Replace Work showing faults under tests without additional cost to the City. Test system voltage at switchboards at completion of Work and provide a written report to the City's Representative.

#### 1.21 EQUIPMENT LISTS AND MAINTENANCE MANUALS

- A. Prior to completion of job, Contractor shall compile a complete equipment list and maintenance manual. The equipment list shall include the following items for every piece of material and equipment supplied under this section of the Specifications.
  - 1. Name, model and manufacturer.
  - 2. Complete parts Drawings and list.
  - 3. Local supply for parts and replacement and telephone number.
  - 4. All tags, inspection slips, instruction packages, etc. removed from equipment as shipped from the factory, properly identified as to the piece of equipment it was taken from.
- B. Maintenance manuals shall be furnished for each applicable section of the Specifications, shall be suitably bound with hard covers, and shall include all available manufacturers' operation and maintenance instructions, together with as-built Drawings and lists hereinbefore specified and other diagrams and instructions necessary to properly operate and maintain the equipment. The equipment lists and maintenance manuals shall be submitted in duplicate to Engineer for approval not less than 10 days prior to the completion of the job. The maintenance manuals shall also include the name, address and phone number of the General Contractor and all subcontractors involved in any of the Work specified herein. The maintenance manuals shall be finally provided in four copies.

#### 1.22 CLEANING

- A. During construction on a daily basis, and upon completion of the Work, remove from the site all debris and excess materials, tools, and removed items, resulting from this Work. Clean equipment, including lighting fixtures, free of dust, dirt, grease, paint, etc.

#### 1.23 SALVAGE

- A. Deliver salvaged equipment and material deemed salvageable by City's Representative to location as designated by City's Representative. Remove other removed material and equipment from site.

1.24 GUARANTEE

- A. Leave the entire installation in complete working order, free from defects in materials, workmanship or finish. Guarantee to repair or replace parts that may develop defects due to faulty materials, equipment, or workmanship within a period of one year after the Work is accepted by the City. Also guarantee to repair or replace with like materials, other existing Work in the building damaged from or during the repair of any such defective equipment, materials, or workmanship.

**PART 2 - PRODUCTS AND EXECUTION**

2.01 GROUNDING

- A. Grounding shall be executed in accordance with applicable codes and regulations of the State of California, California Electrical Code and local authorities having jurisdiction as well as any additional provisions specified or shown on Drawings.
- B. Grounding bushings shall be used wherever conduits are grounded. Feeder conduits to panels and air conditioners shall have grounding bushings.
- C. Grounding conductors should be located to permit, the shortest and most direct path to ground. Connections shall be readily accessible for inspection and connections shall not be permanently concealed in floors or walls.
- D. Non-current carrying metallic parts of electrical equipment and raceways shall be securely grounded to the common system ground. In all locations, ground conductors shall be run through conduits and shall be securely bonded to the conduit at the entrance and exit. The conduit for the grounding conductors shall be continuous from the point of attachment to cabinets or equipment to the grounding electrode, and shall be securely fastened to the ground clamp fittings.
- E. Ground connections to equipment shall be made with an approved type of exothermic weld or shall be bolted or clamped to equipment or conduit. Sheet metal strap types of ground clamps shall not be used. Contact surfaces shall be thoroughly cleaned and bright before connection is made so as to ensure a good metal to metal contact.
- F. Where nonmetallic conduit is used, ground shall be achieved through use of a separate green insulated copper code size ground conductor included in the conduit.
- G. Bonding of cold water piping system shall be achieved at the service entrance. A copper saddle shall be installed over the copper pipe at the location of the clamp to avoid damage to the pipe.

2.02 CONDUIT

A. Rigid Steel Conduit:

1. Rigid steel conduit shall have zinc coated exterior, zinc or enamel interior, standard weight, zinc coated couplings, locknuts and bushings and shall bear the U.L. label. Rigid conduit shall not be installed underground.
2. Use rigid conduit for all conduit runs, unless noted otherwise.

B. Electrical Metallic Tubing: Electrical metallic tubing (E.M.T.) shall not be used on this project.

C. Liquid-Tight Flexible Conduit:

1. Liquid-tight flexible conduit shall bear the U.L. label and be plastic jacketed moisture and oil resistant with oil and vapor tight connectors.
2. Use flexible liquid-tight conduit for final connection to equipment where vibration may injure direct conduit connection.

D. Plastic Conduit: Plastic conduit shall not be used on this project.

E. Installation of Conduit:

1. Exposed/Concealed Conduit:

- a. Provide secure mounting facilities for conduits. Wire or plumbers tape shall not be used for hanging conduit. Strap shall be factory made of the one hole malleable iron or two hole galvanized clamp type.
- b. Provide expansion couplings wherever conduits cross expansion joints.
- c. Run conduit at right angles or parallel to structural members, walls, floors and ceilings. Where several conduits are run together or suspended, they shall be hung on Unistrut trapezes with minimum 3/8-inch rod hangers.
- d. Cut ends of conduit square and ream to remove burrs or sharp edges. Terminate conduits properly with bushings, locknuts, etc. Terminate one (1) inch and larger conduits with insulated bushings.
- e. Render conduits projecting through the roofing watertight by proper flashings. Securely fasten a sheet metal cap and tighten bank or storm collar to the conduits. Extend flashing a minimum of six (6) inches in all directions. Coordinate and install roof flashing for conduits to the satisfaction of the City's Representative.
- f. All conduit runs shall have a code size insulated grounding conductor.

2.03 LIGHTING SWITCHES

- A. Line voltage lighting switches shall be specification grade, quiet type, 20 amp. 120/277 volt A.C. white handled. Switches shall be P & S #5020 Series or Arrow-Hart #1990 Series.

## 2.02 WIRE AND CABLE

### A. 600 Volt Conductors:

1. Conductors shall be copper and delivered to the site in their original, unbroken packages plainly marked or tagged with U.L. label, size, kind, insulation, name of manufacturer and trade name of the wire.
2. Type "THWN/THHN", 600 volt insulation shall be used for all conductors.
3. Minimum size conductor shall be #12.
4. Conductors smaller than #10 shall be solid, #10 and larger shall be stranded.
5. Ground conductors shall be bare copper or have green insulation.

### B. Installation:

1. Conductors shall be continuous between outlets or junction boxes and no splices shall be made except in outlet boxes, pull boxes, panelboard gutters or handholes.
2. Joints, splices and taps No. 10 or smaller (including fixture pigtails) shall be connected with "floating spring" type connectors. No. 8 and larger shall be connected with solderless connectors of 100% electrolytic copper. Split-bolt connectors are not acceptable.
3. Tighten pressure type lugs on panels and equipment, and then retighten 24 hours or more later after energizing. Provide written report of torque values on lugs.
4. Oil or grease shall not be used when pulling conductors. Use U.L. approved cable lubrication only.
5. Lace or train conductors neatly in panels, cabinets and equipment. Use plastic wire ties to route conductors at edge of enclosure away from overcurrent devices.
6. Branch circuits shall be color coded in compliance with Section 210-5 of the California Electrical Code. Colored tape is not acceptable.
7. All wiring, both line and low voltage, shall be installed in conduit unless otherwise noted.

### C. Tag:

1. Branch circuits shall be left tagged with circuit numbers in gutters and junction boxes where unused circuits terminate.



2. Feeder conductors shall be tagged as phase "A" or "B" or "C".
  3. The method of tagging shall be with adhesive preprinted tape numbered or lettered wrap around tags. Colored tape is not acceptable.
  4. Tagging shall be applied after wire is installed in conduit.
  5. Feeders in panel or equipment shall be tagged by phase letter in each panel or equipment.
  6. Where it is impractical to use printed markers on certain wires or cables, use blank tape with identification marked thereon with indelible pencil.
- D. Color Coding for Phase Identification: Color code secondary service, feeder, and branch circuit conductors with factory applied color as follows:

<u>208y/120Volts</u>		<u>Phase</u>	<u>480y/277Volts</u>
Black		A	Yellow
Red		B	Brown
Blue		C	Orange
White	Neutral	White	
Green			Ground Green

## 2.05 DISCONNECT SWITCHES

- A. Non-fusible or fusible as shown on the Drawings, heavy duty, 600 volts, NEMA Type 1 enclosure, except where WP is indicated or required by code, use NEMA Type 3R enclosure.

**END OF SECTION**

## **SECTION 31 05 19 GEOMEMBRANE LINER**

### **PART I – GENERAL**

#### ***A. DESCRIPTION***

1. The work consists of the furnishing and installation of a geomembrane liner system for non-hazardous wastewater ponds. It is the intent of these specifications that the installed liner system will contain the wastewater without leakage.

#### ***B. RELATED DOCUMENTS***

1. I Section 31 20 11. Earthwork
2. Geotechnical Reports BSK
3. Section 31 05 21 Baffle Curtain.
4. Section 01 33 00 Submittals
5. International Association of Geosynthetic Installers HDPE and LLDPE Geomembrane Installation Specification

#### ***C. SUBMITTALS***

1. Product Data: Submit manufacturer's technical product data, details, test methods and installation instructions for the geomembrane liner system materials and products.
2. Samples of geomembrane with field-applied lap joints and a copy of the installers Construction Quality Control Manual (CQC).
3. Proposed panel layout showing proposed seams and details. Seams shall generally follow the direction of slope.
4. Copy of manufacturer's and installer's warranty.
5. Record Drawings: At project closeout, submit record drawings of installed geomembrane liner system and products including panel layout drawings.
6. Submit all quality control test results at completion of pond lining installation.

#### *D. QUALITY ASSURANCE*

1. Manufacturing: The manufacturer shall be listed by National Sanitation Foundation as having met Standard 54 for Flexible Membrane Liners and shall have at least five (5) years continuous experience in the manufacture of geomembrane rolls and/or experience totaling 10,000,000 square feet of manufactured geomembrane. The manufacturer shall permit the Owner or his authorized representatives to visit the manufacturing plant
2. Installation: The installation contractor be the manufacturer, or an approved contractor trained and licensed to install the manufacturer's geomembrane. Installation shall be performed under the constant direction of a single Field Installation Supervisor who shall remain on site and be responsible, throughout the liner installation, for liner layout, seaming, patching, testing, repairs, and all other activities by the Installer. This Installation Supervisor shall have installed or supervised the installation and seaming of a minimum of 2,000,000 square feet of geomembrane. Actual seaming shall be performed under the direction of a Master Seamer (who may also be the Installation Supervisor) who has seamed a minimum of 2,000,000 square feet of geomembrane, using the same type of seaming apparatus specified in the current project. This Installation Supervisor and/or Master Seamer shall be present whenever seaming is performed
3. Warranty: Submit written warranty executed by manufacturer of selected primary membrane lining materials that within the warranty period agrees to replace/repair defective materials and workmanship including leakage, abnormal ageing or deterioration of materials and other performance measures of the membrane lining, as required. Warranty Period shall be five (5) years after date of Substantial Completion. The warranty shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and will be in addition to and run concurrent with warranties made by the Contractor under requirements of the Contract Documents.

#### *E. DELIVERY, STORAGE AND HANDLING*

The geomembrane rolls or panels shall be packaged and shipped by appropriate means so that no damage is caused. Transportation shall be the responsibility of the Installer.

Off-loading and storage of the geomembrane is the responsibility of the Installer. The Installer shall be responsible for replacing any damaged or unacceptable material at no cost to the Owner. No off-loading shall be done unless the Owner's Representative is present. Damage during off-loading shall be documented by the Owner's Representative. The Owner's Representative will be the final authority on determination of damage. The geomembrane shall be stored on a prepared surface (not wooden pallets) and should not be stacked more than two rolls high.

## PART II – PRODUCTS

### A. GEOMEMBRANE LINER

- I. The geomembrane liner shall be manufactured from high density polyethylene manufactured from first quality virgin, high molecular weight resin produced in the United States or Canada specifically for the purpose of hydraulic containment. Blending of resins will not be allowed. Edge trim generated during the manufacturing process of the geomembrane may be continuously returned to the base resin provided it does not to exceed 2% of the product. No other recycled or reworked resin may be used. The resin used to produce the geomembrane shall be formulated to be resistant to chemical and ultraviolet degradation, when exposed directly to the sun over the life of the product. The geomembrane shall be free of plasticizers and leachable additives.

The geomembrane liner material shall be continuous sheet, seamless 60 mil high density polyethylene and shall meet the following properties:

Property	Test Method	Results
Thickness (mils)	ASTM D 751	57 minimum
Density (g/cc)	ASTM D 1505	0.94 minimum
Melt Index (g/10min)	ASTM D1238	0.4 maximum
Carbon Black Content (%)	ASTM D 1603	2-3
Carbon Black Dispersion	ASTM D 3015	A-1, A-2, B-1
Tensile Properties	ASTM D638	
Stress at yield (ppi)		132

Stress at Break (ppi)		228
Strain at Yield (%)		13
Strain at Break (%)		700
Tear resistance (lbs)	ASTM D1004	45
Puncture resistance (lbs)	ASTM D4833	108
Environmental Stress Crack (hrs)	ASTM D1693	1500
Dimensional Stability (%)	ASTM D 1204	2.0

In addition, the minimum field seam values based on ASTM D4437, as modified in Annex A of NSF 54-1991 shall be as follows:

Shear Strength (ppi)	120
Peal Strength-Fusion (ppi)	91
Peal Strength-Extrusion (ppi)	78

The manufacturer shall submit certification that the geomembrane liner material meets these specifications. Each roll of geomembrane shall be labeled with the following information:

- 1) Product Identification
- 2) Roll Number
- 3) Roll thickness
- 4) Roll Dimensions
- 5) Resin Type
- 6) Date of Manufacture

### **PART III EXECUTION**

#### **A. EARTHWORK**

1. All surfaces to be lined shall be smooth, free of all foreign and organic material, sharp or angular objects, or debris of any kind. These surfaces shall provide a firm, unyielding foundation with no sharp changes or abrupt breaks in grade. Standing water or excessive

moisture shall not be allowed.

Prior to installation, the Contractor shall certify in writing to the Engineer that the surface on which the geomembrane will be installed is acceptable and suitable for the proposed liner material. The geomembrane installer and Owner's representative shall inspect the surface to be covered by the geomembrane on each day's operation prior to placement to verify suitability. Provide daily written acceptance of the surface for each day's operation.

The anchor trench shall be excavated to the line, grade and width shown on the Plans prior to liner system placement. The anchor trench shall be backfilled and compacted by the Contractor. Trench backfill material shall be placed in 8-inch thick loose lifts and compacted to the density and compaction required in the embankment.

Care shall be taken when backfilling the trenches to prevent any damage to the geomembrane. At no time shall construction equipment come into direct contact with the geomembrane. If damage occurs, it shall be repaired by the Installer prior to the completion of backfilling.

#### ***B. EQUIPMENT***

1. Welding Equipment: The Contractor shall provide welding equipment equipped with gauges showing temperatures at the nozzle (extrusion welder) or at the wedge (wedge welder) or have the equipment capable of measuring the temperature of the nozzle (hot air). Equipment shall be maintained in adequate number to avoid delaying work and shall be supplied by a power source capable of providing constant voltage under a combined-line load.
2. Punch Press: The Contractor shall provide a punch press for the on-site preparation of specimens for testing.
3. Field Tensionmeter: The Contractor shall provide a tensiometer for on-site shear and peel testing of geomembrane seams. The tension meter shall be in good working order, built to ASTM specifications, and accompanied by evidence of calibration within one year. The tensiometer shall be motor driven and have jaws capable of traveling at a measured rate of 2 and 20 inches per minute. It shall be equipped with a load cell that measures the force in unit pounds exerted between the jaws and have a digital readout.
4. Vacuum Box: Contractor shall provide a vacuum box for on-site testing of geomembrane seams. The vacuum box shall have a transparent viewing window on top and a soft closed-cell neoprene gasket attached to the bottom. The housing shall be rigid and equipped with a bleed valve and vacuum gauge. A

second vacuum source shall be connected to the vacuum box. The equipment shall be capable of inducing and holding a vacuum of 5 psi.

5. Gauge and Air Pump: An air pump capable of sustaining 35 psi and a gauge with a read out of at least 35 psi.

### *C. DEPLOYMENT*

1. Geomembrane panels shall be unrolled using methods that will not damage, stretch, or crimp the geomembrane and shall protect the underlying subsurface from damage. Ballast that will not damage the geomembrane shall be used to prevent uplift due to wind. Methods used shall minimize wrinkles. If required, a smooth piece of geomembrane will be used as a rub sheet to facilitate deployment of geosynthetic layers. The rub sheet does not need to run the entire length of the slope, only the top crest and first few feet of the slope need to be covered to facilitate deployment. Provide slack in liner as required for thermal expansion.
2. Panels shall be oriented perpendicular to the line of the slope crest (i.e., down and not across slope). For slopes steeper than 10:1, cross seams parallel to the crest or toe shall be located at least 5 feet from the crest or the toe of slope. Cross seams on slopes should be minimized but are acceptable when staggered throughout the slope.
3. Each panel deployed shall be assigned a simple and logical identifying code consistent with the submitted panel layout drawings. No more panels shall be deployed in one day than can be welded during that same day. Tack welding may be acceptable as a temporary measure. However, under normal circumstances tack welded panels shall not be left overnight. Panels shall be shingled on all slopes such that the upper panel is overlapped above the lower panel.
4. Personnel walking on the geomembrane shall not wear shoes that could damage the geomembrane. Smoking shall not be permitted while working on the geomembrane.
5. Vehicular traffic on the geomembrane shall be minimized. Equipment shall not damage the geomembrane by handling, trafficking, leakage of hydrocarbons, or any other means. The geomembrane surface shall not be used as a work area, for preparing patches, storing tools and supplies, or other uses. If needed, a protective cover may be spread out as a work surface. Use only low ground pressure vehicles, with tire pressure less than 7 psi.

### *D. PREPARATION FOR SEAMING*

1. The seam numbering system shall be compatible with panel coding system. During welding operations, at least one Master Seamer shall be present and shall provide supervision over other welders

2. The surface of the geomembrane shall be wiped with a clean cloth to remove moisture, dust, dirt, debris, or other foreign material. Solvents or adhesives shall not be used. Panels shall overlap by a minimum of four inches for all welds.
3. Fishmouths or wrinkles at seam overlaps shall be cut to achieve a flat overlap. The cut fishmouths or wrinkles shall be welded where the overlap is more than 3 inches. When there is less than 3 inches overlap, an oval or round patch extending a minimum of 6 inches beyond cut in each direction shall be used.
4. Seams shall be welded only when ambient temperature is between 32 degrees F and 110 degrees F as measured 6 inches above the geomembrane surface. No geomembrane shall be seamed when the sheet temperature is above 170 degrees F.
5. Trial Welds: Trial welds shall be performed on geomembrane samples to verify welding equipment operations and performance of seaming methods and conditions. Minimum of two trial welds per day or shift per welding apparatus will be made, one made prior to the start of work and one completed mid shift. Welds shall be made under the same surface and environmental conditions as the production welds (i.e., in contact with geomembrane subsurface and similar ambient temperature).
6. Trial Weld Testing: Samples shall be at least 5 feet long and 1 foot wide with the seam centered lengthwise. 5, 1-inch wide test strips shall be cut from the trial weld. Each of the specimens shall be tested in the field for peel. Remaining samples shall be retained for future testing. For double wedge welding, both welds shall be individually tested, and both shall be required to pass in peel.

#### *E. WELDING PROCEDURES*

##### *I. Fusion (Wedge) Welding:*

- a. Double wedge fusion welding shall be the primary welding procedure. Prior to welding, adjacent panels are lapped 4 inches, and the weld area is cleaned. Welding apparatus shall be automated, vehicular mounted, and equipped with devices giving applicable temperatures and pressures.
- b. The welding machine shall be set to the required temperature and the machine travel speed is set to the required setting for the applicable material thickness.
- c. When the welding machine is operating as required, a trial seam shall be made on strips of lining material, then tested. The tests on the trial seam must pass before welding on the membrane is started.

##### *2. Extrusion Welding:*



- a. Extrusion welding shall only be used for repairs and detail work. Adjacent panels shall be tack bonded together using procedures that do not damage the geomembrane, allow required tests to be performed and are not detrimental to final seaming. Welding apparatus shall be free of heat degraded extrudate before welding. The geomembrane surface shall be abraded with a maximum of ¼ inch beyond the weld bead area using a disc grinder, or equal, not more than 30 minutes before welding. The top edges of geomembrane 60 mil or greater shall be beveled 45 degrees using a handheld grinder. The ends of all seams, which are more than 5 minutes old, shall be ground when restarting the weld. Grinding depth shall not exceed ten percent of the liner thickness.
- b. When the welding machine is operating as required, a trial seam is made on strips of lining material, then tested per details in the specifications. The tests on the trial seam must pass before welding on the membrane.

#### *F. CONFORMANCE TESTING*

Samples of the geomembrane liner shall be obtained from the rolls delivered to the job site for independent testing by the Owner's representative. Provide one sample for each 50,000 square feet of geomembrane liner. The samples shall be 3 feet wide by the width of the roll. The machine direction shall be marked on the samples with an arrow.

#### *G. NON-DESTRUCTIVE TESTING*

Non-destructively test all field seams over their full length using vacuum box testing, air pressure testing for fusion (wedge) welded seams only, or spark testing.

- I. Vacuum box testing shall conform to the following requirements:
  - a. The equipment shall include two vacuum box assemblies consisting of the following: a rigid housing, a transparent viewing window, a soft bottom, a port hole or valve assembly, a vacuum gauge, a vacuum device equipped with pressure control, a rubber pressure/vacuum hose with fittings and connections, a soapy solution and an applicator.
  - b. Testing shall conform to the following procedures: Brush soapy solution on geomembrane. Place vacuum box over the wetted seam area. Ensure that a leak-tight seal is created. Apply a vacuum of approximately 5 psi. Examine the geomembrane through the viewing window for the presence of soap bubbles for not less than 10 seconds. All areas where soap bubbles appear shall be marked and repaired as

described in this section.

2. Air pressure testing for fusion (wedge) welded seam with an enclosed space, shall conform to the following requirements:
  - a. The equipment shall consist of the following: an air pump (manual or motor driven) equipped with pressure gauge capable of generating and sustaining pressure over 35 psi and mounted on a cushion to protect the geomembrane, a rubber hose with fittings and connections, a sharp hollow needle, or other approved pressure feed device, and a pressure gauge.
  - b. Testing shall conform to the following procedure: Seal both ends of the seam to be tested. Insert needle or other approved pressure-feed device into the channel created by the double-wedge weld. Energize the air pump to a minimum pressure as indicated below, close the valve, and sustain the pressure for at least 5 minutes. If pressure loss exceeds the allowable drop or does not stabilize, locate faulty area and repair as described in this section. Puncture opposite end of the seam to release air. If blockage is present, locate and test seam on both sides of blockage. Remove needle or other approved pressure-feed device and seal penetration holes by extrusion welding, as necessary.

Thickness	HDPE Geomembrane Max Pressure Range	Allowable Drop
60 mil	25 psi – 30 psi	2 psi

3. Spark testing shall be used for those extrusion seams that are unable to be tested by a vacuum box.
  - a. The spark test method consists of introducing 24-gauge copper wire placed at the edge or just under the top sheet overlap of the two sheets, prior to the welding with the extruder. After welding, a spark detector, operating at 20,000 volts, is run along the weld. If any pinholes are present, a circuit will be completed through the copper wire and the spark detector. This will sound an alarm in the detector alerting the operator of the presence of a defective area. The spark test shall be used for extrusion welded seams where there is no hazard anticipated from a spark and where there is no chance of creating a vacuum seal.
  - b. The spark detector should not be used in the presence of water or excessive moisture.

#### H. DESTRUCTIVE TESTING

1. Destructive Test Sampling shall conform to the following requirements:
  - a. As the welding of the geomembrane progresses, test samples shall be cut from the finished liner. The Owner's representative shall determine the location of the destructive samples, with no less than one sample taken for every 500 feet of seam. When reasonable, destructive samples should be taken at the beginning or end of a seam.
  - b. The destructive sample shall be 12 inches wide by 36 inches long with the seam centered lengthwise. The sample shall be cut into 3 equal part for distribution to Contractor, the testing laboratory and the Owner's representative.
  - c. Cut samples at locations designated by the Owner's representative. Prior to the geomembrane being covered by the next layer of materials, laboratory tests shall have passing results.
  - d. Immediately repair all holes in the geomembrane resulting from destructive samples. The continuity of the repair shall be vacuum tested in accordance with this section.
2. Both destructive and trail weld samples shall be labeled with the following information:
  - a. destructive (red label) or trial (green label) sample
  - b. job name and number
  - c. date sample was welded
  - d. membrane thickness
  - e. sample or seam number, if applicable
  - f. welder's name
  - g. welding machine number
  - h. ambient temperature

#### Material and Test Minimum Acceptable Strength (lbs/in width)

<u>HDPE</u>	<u>60 mil</u>
Shear strength	121
<u>Peel Adhesion</u>	
Wedge weld	98
Extrusion weld	78

3. a. Laboratory Testing: Samples shall be tested in peel and shear. Minimum acceptable strength to be obtained for these tests shall be in compliance with the above.

- b. At least 5 coupons shall be tested by each test method. 4 of 5 coupons shall meet the minimum requirements. Coupons from each sample shall be selected alternately for testing (i.e., peel, shear, peel, shear....). For double wedge seam samples, both welds shall be tested in peel. Test results shall be provided verbally within 24 hours after receiving samples, and in written form within 7 days.
- C. Failing samples shall be bounded by 2 locations where samples have passed destructive tests. For reconstructed seams exceeding 150 feet, a sample taken from within the reconstructed seam shall also pass destructive testing. Whenever a sample fails, additional testing may be required for seams that were welded by the same welder and welding apparatus or were welded during the same shift.

#### *I. DEFECTS AND REPAIRS*

1 The geomembrane shall be examined for defects, holes, blisters, undispersed raw materials, and any sign of contamination by foreign matter. The geomembrane surface shall be clean at the time of examination. Each suspect location shall be repaired and non-destructively tested. Geomembrane shall not be covered at locations that have not been repaired.

- a. Damaged geomembrane shall be removed and replaced with acceptable geomembrane if damage cannot be satisfactorily repaired.
- b. Any portion of the geomembrane exhibiting a flaw or failing a destructive or non-destructive test shall be repaired. Procedures available include:
- c. Patching used to repair large holes (over 3/8-inch diameter) and tears (over 2 inches long) and contamination by foreign matter.
- d. Abrading and re-welding: used to repair small seam sections (less than 12 inches long).
- e. Spot welding: used to repair small tears (less than 2 inches long), pinholes, or other minor, localized flaws.
- f. Capping used to repair large lengths of failed seams.
- g. Removing the unsatisfactory material or seam and replacing with new material.

- h. Patches or caps shall extend at least 6 inches beyond the edge of the defect, and all corners of material to be patched and these shall be rounded to a radius of at least 3 inches. The geomembrane below caps shall be cut to avoid water or gas collection between the 2 sheets.
- i. Repairs shall be non-destructively tested using methods specified in this Section.
- j. Special membrane treatment of pipes passing through pond lining shall be per manufacturer's requirements and shall require approval by the Owner's representative.
- k. Provide watertight boot seals around all pipe and other penetrations.

**END OF SECTION**

## **SECTION 31 05 20**

### **SOIL STERILANT**

#### **PART I – GENERAL**

##### *A. DESCRIPTION*

1. Soil sterilization of the tops and all slopes of embankments and bottoms of ponds to receive lining.

##### *B. RELATED MATERIALS*

1. Section 31 05 19 Geomembrane Liner.
2. Section 31 20 11 Earthwork
3. Geotechnical Engineering Investigation Report

##### *C. SUBMITTALS*

1. Product Data: Submit Manufacturer's technical data and application instructions for embankment sterilant.

#### **PART II PRODUCTS**

*A. Soil Sterilant* Commercial chemical for weed control, registered by Environmental Protection Agency. Provide granular, liquid, or wettable powder form.

I. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the work include, but are not limited to, the following:

Dow Chemical USA  
E.I. Du Pont de Nemours Co.  
FMC Corp.  
Thompson-Hayward Chemical Co.  
U.S. Borax and Chemical Corp.

#### **PART III – EXECUTION**

*A. Soil Sterilization:* The tops of all slopes of embankments and bottoms of ponds to receive lining shall be treated with a product to sterilize the soil. Soil sterilant shall be applied in strict compliance with manufacturer's recommended dosages and application instructions for sterilization and to prevent weed growth for a period of one year.

**END OF SECTION**

## **SECTION 31 05 31 BAFFLE CURTAIN**

### **PART I – GENERAL**

#### ***A. DESCRIPTION***

1. The work consists of the furnishing and installation of floating baffle curtains suitable for dividing wastewater ponds into a multi- cell configuration.

#### ***B. RELATED DOCUMENTS***

1. Section 31 95 19 Geomembrane Liner

#### ***C. SUBMITTALS***

1. Product Data: Submit manufacturer's technical product data, details, for the curtain baffle system materials and products. Show physical properties with corresponding ASTM or other standard test method. Provide sample of baffle curtain material that has been exposed to field conditions for 10 years or more.
2. Samples of proposed curtain baffle with field-applied lap joints and a copy of the manufacturer's Installation Manual.
3. Proposed baffle curtain layout showing openings and proposed seams and details.
4. Copy of manufacturer's and installer's warranty.
5. Record Drawings: At project closeout, submit record drawings of installed curtain baffle system.
6. Submit all quality control test results at completion of curtain baffle installation
7. Supplier shall provide a representative list of at least 3 similar installations with location, contact name, phone number and email address. Supplier shall have a minimum of 10 continuous years' experience in the manufacture of floating curtain baffles.

#### ***D. QUALITY ASSURANCE***

- A. All materials used in the curtain baffle shall be certified to be resistant to UV light,



chlorine, temperature exceeding 140 degrees and domestic wastewater. Curtain baffle materials shall be resistant to tears and puncture.

#### **E. DELIVERY, STORAGE AND HANDLING**

I The curtain baffle shall be packaged and shipped by appropriate means so that no damage is caused. Transportation shall be the responsibility of the Installer.

Off-loading and storage of the curtain baffle is the responsibility of the Installer. The Installer shall be responsible for replacing any damaged or unacceptable material at no cost to the Owner. No off-loading shall be done unless the Owner's Representative is present. Damage during off-loading shall be documented by the Owner's Representative. The Owner's Representative will be the final authority on determination of damage

### **PART II – PRODUCTS**

#### **A. CURTAIN BAFFLE**

I. The curtain baffle shall be fabricated from reinforced nylon polyester XR-5 6730 and shall meet the following properties:

Base Fabric Type	Polyester	
Base Fabric Weight (nominal) ASTM D751	7.0 oz/yd <sup>2</sup>	235 g/m <sup>2</sup>
Thickness ASTM D751	30.0 mils (min.)	0.76 mm (min.)
Weight ASTM D751	30.0 ± 2 oz/yd <sup>2</sup>	1017 ± 70 g/m <sup>2</sup>
Breaking Strength ASTM D751, Grab Tensile	600 lb <sub>f</sub> (min.)	2670/2447 N (min)
Low Temperature ASTM D2136, 4hr – 1/8" mandrel	Pass @ -30 °F	Pass @ -35 °C
Dimensional Stability ASTM D1204, 212°F / 100°C – 1 hr	0.5% max. each direction	
Adhesion – Heat Sealed Seam ASTM D751, Dielectric Weld	15 lb <sub>f</sub> / in RFweld (min.)	15 daN/5 cm (min.)
Bursting Strength ASTM D751 Ball Tip	750 lb <sub>f</sub> (min.)	3330 N (min.)
Hydrostatic Resistance ASTM D751, Method A	800 psi (min.)	5.51 MPa (min.)
Blocking Resistance ASTM D751 (180°F / 82°C)	#2 Rating (max.)	
Adhesion – Ply	15 lb <sub>f</sub> /in (min.)	13 daN/5cm (min.)

ASTM D413	or Film Tearing Bond	or Film Tearing Bond
Bonded Seam Strength ASTM D751 as modified by NSF 54	550 lbf (min.)	2560 N (min.)
Abrasion Resistance ASTM D3389 (H-18 Wheel, 1000 g load)	2,000 cycles (min.) before fabric exposure 50 mg/ 100 cycles max weight loss	
Weathering Resistance ASTM G23 (Carbon-Arc)	8,000 hrs (min.) – No appreciable changes or stiffening or cracking of coating	
Water Absorption ASTM D471, Section 12, 7 days	0.025 kg/m <sup>2</sup> (max.) @ 70°F / 21°C 0.14 kg/m <sup>2</sup> (max.) @ 212°F / 100°C	
Wicking Shelter-Rite® Procedure	1/8 in (max.)	0.3 cm (max.)
Puncture Resistance ASTM D4833	275 lb <sub>f</sub> (min.)	1200 N (min.)
Coefficient of Thermal Expansion / Contraction ASTM D696	8 x 10 <sup>-6</sup> in/in/°F (max.)	1.4 x 10 <sup>-5</sup> cm/cm/°C (max.)

All seams or splices shall be sewn to physically bond the base material scrim. Sewing shall also be used to bond the tension members with base material scrim. Any seams using only heat seal to bond the surface of the material will not be accepted.

- B. All flow windows shall be reinforced with 3-inch nylon web and double stitched. All seams, joints, and tension members shall be double lock-stitched with a silicone treated nylon thread with a 346 minimum gauge to physically bond all material together. The baffle shall conform to the lagoon side slopes and bottom.

The wall shall be fabricated in maximum 50-foot section lengths. Each section shall have its bottom and top reinforced with 2-inch nylon web strap having tensile strength of at least 12,000 lb. The ends and joints shall be reinforced with a 3-inch nylon web strap having tensile strength of at least 20,000 lb.

- C. A 5/8" hot dipped galvanized chain shall be sewn into the bottom of the baffle as the ballast. The 5/8" chain also provides the positive bottom seal on irregular pond bottoms and side slopes. Weight is 3.25 lb/ft.

#### D. Mooring, Anchoring and Ballast

The floating baffle curtain shall be designed to float and shall be anchored at the bottom to prevent movement. Manufacturer shall design and fabricate the baffle curtain with

sufficient buoyancy for floating and with sufficient anchoring weight to prevent movement at the bottom. Bottom anchors shall be fabricated from geomembrane fabric that will not tear or damage the HDPE liner when dropped to the bottom. Minimum ballast weight shall be 150 lbs.

- E. All fasteners, end connectors, grommets and hardware shall be 304 stainless steel. Anchor chain shall be hot dipped galvanized.

### **PART III      EXECUTION**

#### **A.      *INSTALLATION***

1. The contractor shall measure the as built side slopes and bottom dimension of the ponds after completion of grading and geomembrane liner installation so that the curtain baffle can be fabricated to conform tightly to the bottom. The curtain baffle shall closely conform the bottom and side slopes so the it functions as an effective barrier to flow.
2. Install lateral baffle stainless steel aircraft cable after installation of baffle and adjust as needed to center the baffle.

**END OF SECTION**

## **SECTION 31 20 11 EARTHWORK**

### **PART 1 - GENERAL**

#### **1.1 DESCRIPTION:**

This section specifies the requirements for furnishing all equipment, materials, labor and techniques for earthwork including excavation, engineered fill, backfill, utility trench excavation and backfill, dewatering and site restoration.

#### **1.2 DEFINITIONS:**

- A. Unsuitable Materials:
  - 1. Fills: Topsoil, frozen materials; construction materials and materials subject to decomposition; clods of clay and stones larger than 3 inches; organic materials, including silts, which are unstable; and inorganic materials, including silts, too wet to be stable.
  - 2. Existing Subgrade (except footings): Same materials as above paragraph, that are not capable of direct support of slabs, pavement, and similar items, with the possible exception of improvement by compaction, proof rolling, or similar methods of improvement.
  - 3. Existing Subgrade (footings only): Same as Paragraph 1, but no fill or backfill. If materials differ from design requirements, excavate to acceptable strata subject to Engineer's approval.
- B. Earthwork: Earthwork operations required within the new construction area. It also includes earthwork required for auxiliary structures and buildings and sewer and other trenchwork throughout the job site.
- C. Degree of Compaction: Degree of compaction is expressed as a percentage of maximum density obtained by the test procedure presented in ASTM D1557.
- D. The term fill means fill or backfill as appropriate.

#### **1.3 RELATED WORK:**

- A. Materials testing and inspection during construction: TESTING LABORATORY SERVICES.
- B. Safety Requirements Section 00 73 19,
- C. Protection of existing utilities, fire protection services, existing equipment, roads, and pavements: Section 02 01 20, GENERAL REQUIREMENTS.
- D. Geotechnical Investigation.

#### **1.4 CLASSIFICATION OF EXCAVATION:**

- A. Unclassified Excavation: All excavation shall be unclassified.

**1.5 MEASUREMENT AND PAYMENT FOR EXCAVATION:**

Measurement and payment shall be included in the applicable bid item. No separate measurement or payment shall be made for excavation, backfill or dewatering.

**1.6 SUBMITTALS:**

- A. Submit in accordance with Section 01 33 00, Submittals.
- B. Contractor shall submit procedure and location for disposal of unused satisfactory material. Indicate proposed source of borrow material.
- C. Contractor shall submit dewatering plan, if applicable, for review by the Engineer.

**1.7 APPLICABLE PUBLICATIONS:**

- A. Publications listed below form a part of this specification to the extent referenced. Publications are referenced in the text by the basic designation only.
- B. American Society for Testing and Materials (ASTM):
  - C33-03 ..... Concrete Aggregate
  - D1140-00 ..... Amount of Material in Soils Finer than the No. 200 (75-micrometer) Sieve
  - D1556-00 ..... Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method
  - D1557-09 ..... Laboratory Compaction Characteristics of Soil Using Modified Effort
  - D2487-06 ..... Standard Classification of Soil for Engineering Purposes (Unified Soil Classification System)
  - D6938-10 ..... Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
- C. Standard Specifications of California State Department of Transportation (Caltrans), latest revision.

**PART 2 - PRODUCTS**

**2.1 MATERIALS:**

- A. Fills: Materials approved from onsite and off-site sources having a minimum dry density of 110 pcf, a maximum Plasticity Index of 12, maximum particle size of 3 inches, 65 to 100 percent passing the # 4 sieve, 20 to 45 percent passing the #200 sieve and a maximum expansion index of 20. Imported soils shall be approved in advance by the Geotechnical Engineer. Fill material shall be free of organic material and hazardous material.
- B. Granular Fill:
  - 1. Under concrete slab, granular fill shall consist of Cl 2 aggregate base or clean, well graded crushed rock or crushed gravel.

2. Bedding for sanitary and storm sewer pipe, crushed stone or gravel graded from 1/2 inch to No. 4. Bedding, haunching and initial backfill for PVC pipe shall be Class 1, 2 or 3 material per ASTM D-2321.
- C. Aggregate Base: CI 2 per Caltrans Standard Specifications.
- D. Requirements for Offsite Soils: Offsite soils brought in for use as backfill shall be clean soil, free of organics and hazardous materials. No materials shall be imported without prior written approval of the Engineer.
- E. Buried Warning and Identification Tape: warning tape manufactured specifically for warning and identification of buried utility lines. Provide tape on rolls, 3-inch minimum width, color coded for the intended utility with warning and identification imprinted in bold black letters continuously over the entire tape length. Warning and identification to read, "CAUTION, BURIED (intended service) LINE BELOW" or similar wording. Color and printing shall be permanent, Unaffected by moisture or soil.
- G. Detection Wire for Non-Metallic Piping: Detection wire shall be Insulated single strand, solid copper with a minimum of 12 AWG.

### **PART 3 - EXECUTION**

#### **3.1 SITE PREPARATION:**

- A. Clearing: Clearing within the limits of earthwork operations as described or designated by the Engineer. Work includes removal of trees, shrubs, fences, foundations, incidental structures, paving, debris, trash and any other obstructions. Do not remove trees or shrubs unless they are indicated on the drawings to be removed.
- B. Grubbing: Remove stumps and roots 3 inches and larger diameter. Undisturbed sound stumps and roots up to 3 inches diameter, and nonperishable solid objects which will be a minimum of 3 feet below subgrade or finished embankment may be left.
- C. Trees and Shrubs: Trees and shrubs may not be removed from the work areas unless approved in advance by the Engineer.
- D. Stripping Topsoil: Unless otherwise indicated on the drawings, the limits of earthwork operations shall extend anywhere the existing grade is filled or cut or where construction operations have compacted or otherwise disturbed the existing grade or turf. Strip topsoil as defined herein, from within the limits of earthwork operations as specified above unless specifically indicated or specified elsewhere in the specifications or shown on the drawings. Topsoil shall be fertile, friable, natural topsoil of loamy character and characteristic of the locality. Topsoil shall be capable of growing healthy horticultural crops of grasses. Stockpile topsoil and protect as directed by the Engineer. Eliminate foreign material, such as weeds, roots, stones, subsoil, frozen clods, and similar foreign materials, larger than 1/2 cubic foot in volume, from soil as it is stockpiled. Retain topsoil at the site. Remove foreign materials larger than 50 mm (2 inches) in any dimension

from topsoil used in final grading. Topsoil work, such as stripping, stockpiling, and similar topsoil work, shall not, under any circumstances, be carried out when the soil is wet so that the tilth of the soil will be destroyed.

- E. Disposal: All materials removed from the property shall be disposed of at a legally approved site, for the specific materials, and all removals shall be in accordance with all applicable Federal, State and local regulations. No burning of materials is permitted onsite.

### 3.2 EXCAVATION:

- A. Shoring, Sheet piling and Bracing: Shore, brace, or slope to its angle of repose banks of excavations to protect workers, banks, adjacent paving, structures, and utilities, in compliance with OSHA requirements.
  - 1. Extend shoring and bracing to the bottom of the excavation. Shore excavations that are carried below the elevations of adjacent existing foundations.
  - 2. If the bearing of any foundation is disturbed by excavating, improper shoring or removal of shoring, placing of backfill, and similar operations, provide a concrete fill support under disturbed foundations, as directed by Engineer, at no additional cost to the Owner. Do not remove shoring until permanent work in excavation has been inspected and approved by the Engineer.
- B. Excavation Dewatering: Operate pumping equipment, and/or provide other materials, means and equipment as required, to keep excavations free of water and subgrades dry, firm, and undisturbed until approval of permanent work has been received from Engineer. Dispose of excess water in accordance with applicable regulatory requirements. Approval by the Engineer is required before placement of the permanent work on all subgrades. When subgrade for foundations has been disturbed by water, remove the disturbed material to firm undisturbed material after the water is brought under control. Replace disturbed subgrade in trenches by mechanically tamped sand or gravel. When removed disturbed material is located where it is not possible to install and properly compact disturbed subgrade material with mechanically compacted sand or gravel, the Engineer should be contacted to consider the use of flowable fill. Groundwater flowing toward or into excavations shall be controlled to prevent sloughing of excavation slopes and walls, boils, uplift and heave in the excavation and to eliminate interference with orderly progress of construction. French drains, sumps, ditches or trenches will not be permitted within 3 feet of the foundation of any structure, except with specific written approval, and after specific contractual provisions for restoration of the foundation area have been made. Control measures shall be taken by the time the excavation reaches the water level in order to maintain the integrity of the in situ material. While the excavation is open, the water level shall be maintained continuously below the working level. Operate dewatering system continuously until construction work below existing water levels is complete.
- C. Blasting: Blasting is not permitted.

D. Structure Earthwork:

1. Excavation shall be accomplished as required by drawings and specifications.
2. Excavate foundation excavations to solid undisturbed subgrade.
3. Remove loose or soft material to solid bottom.
4. Fill excess cut under footings or foundations with 3000 psi concrete, poured separately from the footings.
5. Do not tamp earth for backfilling in footing bottoms, except as specified.

E. Trench Earthwork:

1. Utility trenches (except sanitary and storm sewer):
  - a. Excavate to a width as necessary for sheeting and bracing and proper performance of the work.
  - b. Grade bottom of trenches with bell-holes, scooped-out to provide a uniform bearing.
  - c. Support piping on suitable undisturbed earth unless a mechanical support is shown. Unstable material removed from the bottom of the trench or excavation shall be replaced with select granular material placed in layers not exceeding 6 inches loose thickness.
  - d. The length of open trench in advance of pipe laying shall not be greater than is authorized by the Engineer.
  - e. Provide buried utility lines with utility identification tape. Bury tape 12 inches below finished grade; under pavements and slabs, bury tape 6 inches below top of subgrade
  - f. Bury detection wire directly above non-metallic piping (except sewer and storm drain), at a distance not to exceed 12 inches above the top of pipe. The wire shall extend continuously and unbroken, from m valve to valve.
  - g. Bedding shall be of the type and thickness shown. Initial backfill material shall be placed and compacted with approved tampers to a height of at least one foot above the utility pipe or conduit. The backfill shall be brought up evenly on both sides of the pipe for the full length of the pipe. Care shall be taken to ensure thorough compaction of the fill under the haunches of the pipe. Except as specified otherwise in the individual piping section, provide bedding for buried piping in accordance with AWWA C600, Type 4, except as specified herein. Backfill to top of pipe shall be compacted to 95 percent of ASTM D 698 maximum density. Plastic piping shall have bedding to spring line of pipe. Provide materials as follows:
    - 1) Class I: Angular, 6 to 40 mm (0.25 to 1.5 inches), graded stone, including several fill materials that have regional significance such as coral, slag, cinders, crushed stone, and crushed shells.
    - 2) Class II: Coarse sands and gravels with maximum particle size of 40 mm (1.5 inches), including various graded sands and gravels containing small percentages of fines, generally granular and non-cohesive, either wet or dry.



Soil Types GW, GP, SW, and SP are included in this class as specified in ASTM D 2487.

2. Sanitary and storm sewer trenches:
  - a. Trench width below a point 6 inches above top of the pipe shall be 24 inches for up to and including 12 inches diameter. Width of trench above that level shall be as necessary for sheeting and bracing and proper performance of the work.
  - b. The bottom quadrant of the pipe shall be bedded on suitable undisturbed soil or granular fill. Unstable material removed from the bottom of the trench or excavation shall be replaced with select granular material placed in layers not exceeding 6 inches loose thickness.
    - 1) Undisturbed: Bell holes shall be no larger than necessary for jointing. Backfill up to a point 12 inches above top of pipe shall be clean earth placed and tamped by hand.
    - 2) Granular Fill: Depth of fill shall be a minimum of 6 inches below the pipe and 12 inches above top of pipe. Place and tamp fill material by hand.
  - c. Place and compact as specified the remainder of backfill using acceptable excavated materials. Do not use unsuitable materials.
  - d. Use granular fill for bedding where rock or rocky materials are excavated.
  - e. Provide buried utility lines with utility identification tape. Bury tape 12 inches below finished grade; under pavements and slabs, bury tape 6 inches below top of subgrade
  - f. For sanitary sewer force mains, bury detection wire directly above non-metallic piping at a distance not to exceed 12 inches) above the top of pipe. For force mains, the wire shall terminate in the valve pit at the pump station end of the pipe.
  - g. Bedding shall be of the type and thickness shown. Initial backfill material shall be placed and compacted with approved tampers to a height of at least one foot above the utility pipe or conduit. The backfill shall be brought up evenly on both sides of the pipe for the full length of the pipe. Care shall be taken to ensure thorough compaction of the fill under the haunches of the pipe. Except as specified otherwise in the individual piping section, provide bedding for buried piping in accordance with AWWA C600, Type 4, except as specified herein. Backfill to top of pipe shall be compacted to 95 percent of ASTM D698 maximum density. Plastic piping shall have bedding to spring line of pipe. Provide materials as follows:
    - 1) Class I: Angular 0.25 to 1.5 inches, graded stone, including several fill materials that have regional significance.
    - 2) Class II: Coarse sands and gravels with maximum particle size of 1.5 inches, including various graded sands and gravels containing small percentages of fines, generally granular and non-cohesive, either wet or dry. Class 1, 2 or 3 as specified in ASTM D2321.

- F. Site Earthwork: Excavation shall be accomplished as required by drawings and specifications. Remove subgrade materials that are determined by the Engineer as unsuitable and replace with acceptable material.

### 3.3 FILLING AND BACKFILLING:

- A. General: Do not fill or backfill until all debris, unsatisfactory soil materials, obstructions, and deleterious materials have been removed from the excavation. Use excavated materials or borrow for fill and backfill, as applicable. Do not use unsuitable excavated materials. Do not backfill until foundation walls have been completed above grade and adequately braced, waterproofing or damp proofing applied, and pipes coming in contact with backfill have been installed and inspected and approved by Engineer. Do not backfill until hydraulic structures have passed leak tests.
- B. Placing: Place material in horizontal layers not exceeding 8 inches in loose depth and then compact. Moisture condition as recommended in the geotechnical report. Do not place material on surfaces that are muddy, frozen, or contain frost.
- C. Compaction: Use approved equipment (hand or mechanical) well suited to the type of material being compacted. Do not operate mechanized vibratory compaction equipment within 10 feet of new or existing building walls without the prior approval of the Engineer. Moisten or aerate material as necessary to provide the moisture content that will readily facilitate obtaining the specified compaction with the equipment used. Moisture content of the soil shall be plus or minus 2 percent of optimum moisture content. Compact each layer to not less than 92 percent of the maximum density determined in accordance with the following test method D1557 Method A . Backfill adjacent to any and all types of structures shall be placed and compacted to at least 92 percent laboratory maximum density for cohesive materials or 95 percent laboratory maximum density for cohesionless materials to prevent wedging action or eccentric loading upon or against the structure.
- E. Borrow Material: Borrow material shall be selected to meet the requirements and conditions of the particular fill or embankment for which it is to be used. Borrow material shall be obtained from the borrow areas as designated by the Engineer. Unless specifically provided, no borrow shall be obtained within the limits of the project site without prior written approval. Necessary clearing, grubbing, and satisfactory drainage of borrow pits and the disposal of debris thereon shall be considered related operations to the borrow excavation.

### 3.4 GRADING:

- A. General: Uniformly grade the areas within the limits of this section, including adjacent transition areas. Smooth the finished surface within specified tolerance. Provide uniform levels or slopes between points where elevations are indicated, or between such points and existing finished grades. Provide a smooth transition between abrupt changes in slope.

- B. Cut rough or sloping rock to level beds for foundations. In unfinished areas fill low spots and level off with coarse sand or fine gravel.
- C. Slope backfill outside structures for a minimum distance of 10 feet at a minimum five percent (5%) slope.
- D. Place crushed stone or gravel fill under concrete slabs on grade tamped and leveled. The thickness of the fill shall be 150 mm (6 inches), unless otherwise indicated.
- E. Finish subgrade in a condition acceptable to the Engineer at least one day in advance of the paving operations. Maintain finished subgrade in a smooth and compacted condition until the succeeding operation has been accomplished. Scarify, compact, and grade the subgrade prior to further construction when approved compacted subgrade is disturbed by contractor's subsequent operations or adverse weather.
- F. Grading for Paved Areas: Provide final grades for both subgrade and base course to +/- 0.25 inches of indicated grades.

### ***3.5 DISPOSAL OF UNSUITABLE AND EXCESS EXCAVATED MATERIAL:***

- A. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it in the designated area.

### ***3.6 CLEAN-UP:***

Upon completion of earthwork operations, clean areas within contract limits, remove tools, and equipment. Provide site clear, clean, free of debris, and suitable for subsequent construction operations. Remove debris, rubbish, and excess material from Property . Fill in all ruts and depressions.

### ***3.7 RESEEDING:***

Upon completion of work, replace stockpiled topsoil and reseed all disturbed areas with a seed mix matching the existing grass. Seeding may be delayed to early spring or fall to coincide with natural rainfall.

## **E N D OF SECTION**

## **SECTION 33 01 00**

### **PIPE AND FITTINGS**

#### **PART 1 GENERAL**

##### **1.1 WORK INCLUDED**

- A. Furnish, install, and test all water, wastewater, utility, pipe, fittings, and appurtenances as indicated and as specified.

##### **1.2 RELATED WORK**

- A. Section 03 30 00 - Cast-In-Place Concrete
- B. Section 09 90 01 - Painting and Coating
- C. Section 31 20 00 - Earthwork
- D. Section 40 05 20 - Valves
- E. Section 40 05 21 - Eccentric Plug Valves

##### **1.3 REFERENCES**

- A. California Plumbing Code.
- B. American Water Works Association (AWWA) Standards
- C. American Society for Testing and Materials (ASTM)
- D. American National Standards Institute (ANSI)

##### **1.4 SUBMITTAL REQUIREMENTS**

- A. Submit shop drawings in accordance with Section 01 33 00.
- B. Submit manufacturer's catalog data. Show manufacturer's model number.
- C. Submit dimensions including wall thickness, standard length and materials of construction by reference standard and grade. Submit information on interior and exterior coatings as applicable.

##### **1.5 QUALITY ASSURANCE**

- A. All work performed under this section shall meet applicable recommendations and requirements of AWWA, Uniform Plumbing Code (UPC), NFPA 24, ASTM D2774, and all other applicable national, state, local, standards and regulations.

##### **1.6 MATERIALS**

- A. All materials in contact with potable water shall be certified to ANSI/NSF Standard 61.
- B. All materials shall be new, unused and free of defects in manufacture.

## **PART 2 PRODUCTS**

### **2.1 DUCTILE IRON PIPE**

- A. General: Ductile iron pipe (DIP) shall conform to ANSI A21.51 (AWWA C151) and shall be Class 52 unless shown otherwise. Pipe for grooved or flanged joints shall be no less than Class 53.
- B. Joints:
  - 1. Buried pipe and pipe fittings shall have push-on joints or mechanical joints conforming to AWWA C111. Flanged joints, sleeve-type mechanical couplings, and grooved-type couplings shall be used when shown.
  - 2. For push-on joints, shape of pipe ends shall conform to ANSI A21.11 (AWWA C111). Gaskets and lubricant for pipe and fittings shall conform to ANSI A21.11 (AWWA C111).
  - 3. For mechanical joints, dimensional and material requirements for pipe ends, glands, bolts, nuts, and gaskets shall conform to ANSI A 21.11 (AWWA C111). Pipe smaller than 4 inches shall have screwed or grooved joints
  - 4. For flanged joints, ends of pipe and fittings shall be provided with flanges conforming to ANSI A21.15 (AWWA C115), and to ANSI B16.5 for 150 lb. class. Bolts, nuts, and gaskets for flanged connections shall conform to ANSI B18.2.1. Gaskets shall be plain rubber gaskets, 1/8-inch in thickness. For grooved joints, groove specifications shall conform to ANSI/AWWA C606.
- C. Fittings: Fittings with push-on, mechanical joint, grooved joints and flanged ends shall conform to ANSI A21.1 (AWWA C110) or to ANSI A21.53 (AWWA C153) where compact fittings are specified. Fittings shall have pressure rating of 350 psi for 3-inch to 24-inch and 250 psi rating for 30-inch to 48-inch pipe. Fittings shall have cement- mortar lining equivalent to that of the pipe lining. Provide standard or long radius (LR) bends where indicated in the drawings.
- D. Coating and Lining: Pipe shall be bituminous seal-coated, and cement-mortar lined. The lining shall conform to AWWA C104.
- E. All buried ductile iron pipe shall be encased in an 8-mil lining of polyethylene, installed per AWWA C105.

### **2.2 POLYVINYL CHLORIDE PIPE (PVC)**

- A. General: PVC pipe 4 inches through 12 inches in diameter shall conform to AWWA C900, unless otherwise specified. PVC pipe 14 inches in diameter and larger shall conform to AWWA C905, unless otherwise specified.
- B. The pipe shall be minimum PR 235 (DR 18) unless shown otherwise. Each length of pipe shall be marked with the manufacturer's name, nominal size, pressure classification, and date of manufacture.
- C. Joints: Joints shall be push-on type couplings or integral socket bell PVC pipe unless otherwise shown with rubber gaskets conforming to ASTM D 3139 and ASTM F 477. Integral socket bells of PVC pipe or separate couplings shall meet the same strength requirements as that of the pipe. All component parts of each joint including gaskets and coupling shall be clearly marked for use with the pipe for which they are intended.
- D. Fittings: Fittings shall be of ductile iron conforming to ANSI A21.10 (AWWA C153) with push-on joint bell to fit the make of pipe furnished. Fittings shall have a pressure rating at least equivalent to that of the pipe used and shall be cement-mortar lined in accordance with ANSI A21 (AWWA C104).
- E. Fittings: Fittings shall be of ductile iron conforming to ANSI A21.10 (AWWA C153) for mechanical joints. Dimensional and material requirements for pipe ends, glands, bolts, nuts, and gaskets shall conform to ANSI A 21.11 (AWWA C111). Pipe smaller than 4 inches shall have screwed or grooved joints

### 2.3 STEEL PIPE

- A. General: Steel pipe 12-inches in diameter and smaller shall conform to the requirements of the "Specifications for Black and Hot-Dipped Zinc-Plated (Galvanized) Welded and Seamless Steel Pipe for Ordinary Uses (ASTM A120) and shall be "Standard Weight" Steel. Pipe larger than 12 inches in diameter shall be ASTM A139, AWWA C200, wall thickness not less than 0.18 inches.
- B. Joints: Pipe 4-inches in diameter and larger shall be flanged or shall have grooved ends for Victaulic-type couplings. Where shown on the Plans, the pipe shall be flanged or plain end for flanged coupling adapters. Flanges shall be standard 150 psi flanges meeting the requirements of ANSI B16.1. Flanges shall be furnished with flat faces. Pipe smaller than 4 inches shall have screwed or grooved joints unless shown otherwise on the Plans.
- C. Fittings: All fittings shall be flanged cast or ductile iron, screwed malleable iron, or Victaulic-type fittings. The Contractor may substitute Victaulic-type fittings for flanged fittings or screwed fittings unless the joint requires a specific end for compatibility with a valve or special fitting. All Victaulic-type fittings shall be of strength equal to the pipes with lining and coatings equivalent to that specified for the pipe.

- D. Unless otherwise specified or noted in the Plans, all steel pipe 2-1/2 inch and smaller shall be Hot-Dipped galvanized, and pipes larger than 2-1/2 inch shall be black steel with epoxy or lining with minimum 10 mil dry thickness. Exterior surfaces of all pipe shall be shop primed. Finish coatings shall be as specified in Section 09 90 00 - Painting.

#### *2.4 POLYVINYL CHLORIDE GRAVITY SEWER PIPE (PVC)*

- A. PVC gravity sewer pipe 4-inches through 15-inches in diameter shall conform to ASTM D 3034, SDR 35. PVC gravity sewer pipe 18-inches through 36 inches in diameter shall conform to ASTM F679.
- B. Each length of pipe shall be marked with the manufacturers name, nominal size and ASTM designation. Pipe shall be made of PVC plastic having a cell classification of 12454B or 12364B as defined in ASTM D1784 and shall have SDR of 35 and minimum pipe stiffness of 46 PSI according to ASTM Test D2412.
- C. Joints: Pipe shall include an integral bell section with a factory assembled rubber ring gasket conforming to ASTM F477. Joint shall conform to ASTM D 3212. Bells shall meet the same strength requirements as that of the pipe.
- D. Fittings: Fittings shall be supplied by the pipe manufacturer and shall meet the strength requirement of the pipe. Integral bells and gaskets shall conform to the requirements for joints in this section. Fittings shall be marked with nominal size, manufacturer's name and ASTM designation.
- E. PVC sewer pipe 3 inches to 6 inches, for chemical drain shall conform to ASTM D- 2729 and D2949. Fittings shall be PVC with socket welded joints and shall conform to ASTM D2949 and ASTM D2665.

#### *2.5 FLEXIBLE COUPLINGS FOR GRAVITY PIPES*

- A. Transition type couplings shall be factory manufactured to ensure watertight fit and smooth flow transition at the joint. Couplings shall be made of resilient elastomeric PVC, with all stainless-steel coupling bands including screw and housing. All materials shall be rustproof and unaffected by soil conditions or normal sewer gases and shall be flexible with earth movement while maintaining seal. Poured concrete collar and similar coupling methods will not be accepted.

#### *2.6 GROOVED COUPLINGS*

- A. Groove dimensions shall conform to AWWA C606.
- B. Grooved couplings for ductile iron shall be Victaulic Style 31.
- C. Flexible grooved couplings for steel pipe shall be Victaulic Style 77 or equal; rigid grooved couplings for steel pipe shall be Victaulic Style 07 or equal. Couplings shall be rigid unless otherwise noted on the drawings.

- D. Grooved - Flanged adapters shall be Victaulic Style 341 for ductile iron pipe and Style 741 for steel pipe or equal.
- E. Grooved coupling for high density polyethylene pipe shall be Victaulic Style 995 or 997 or equal.

## 2.7 FLANGED JOINTS

- A. Flanges shall conform to ANSI B16.5, Class 150.
- B. All steel hardware installed underground shall be coated with a rust preventative, wrapped with 4 mil polyethylene sheeting and secured with PVC tape.
- C. Gaskets shall meet the pressure requirements of the adjoining flanges and shall conform to AWWA C-207. Unless specifically specified otherwise, all gaskets shall be Nitrile.

## 2.8 FLEXIBLE SLEEVE COUPLINGS

- A. Flexible sleeve couplings shall be one of the following, or Engineer approved equivalent:
  - 1. Dresser, Inc., Style 38 for Steel Pipe, and Style 253 Wide-Range for Steel, PVC, Copper, and Cast/Ductile Iron pipe.
  - 2. Smith Blair, Inc., Series 411 or Wide-Range 461
  - 3. Romack Industries, Inc., Style 400 for 12" and larger pipe or XR501 Extended Range Coupling, 4" thru 12" pipe size.
- B. Center sleeves shall comply with the following

<u>Nominal Pipe Diameter</u>	<u>Minimum Sleeve Length</u>
6 inch and smaller	Manufacturer's Standard
8 through 14-inch	7 inch
14 inch and larger	10 inch

## 2.9 FLEXIBLE SPOOL-TYPE EXPANSION COUPLINGS

- A. Flexible rubber coupling shall be flexible joints, which includes a tube, body cover and flanges. The tube shall be a leak proof liner and the body shall consist of fabric and rubber compound reinforced with steel wire or rings for strength. Flexible rubber coupling shall be either a single arch or double arch construction as indicated in the Plans. Flexible couplings shall have minimum pressure ratings of 100 psi; couplings installed on suction of pumps shall have a minimum vacuum (pressure) rating of 30 inches Hg column.



1. Flexible coupling shall have Buna N liner and cover and shall be manufactured by Proco, Red Valve Company Inc., Metra flex Company or equal.

## *2.10 MARKER TAPE FOR BURIED PIPING*

See Earthwork, 31 20 11

## *2.11 TRACER WIRE*

Install No. 10 solid-core copper tracer wire.

## *2.12 CONCRETE FOR THRUST BLOCKS*

- A. As specified in Section 03 30 00 — Cast in Place Concrete. Thrust blocks shall be used only where specifically permitted on the drawings or with pre-approval from the Engineer.

## *2.13 JOINT RESTRAINT COUPLINGS*

- A. Mechanical joint restraint coupling shall be of the type that utilizes the follower gland and shall consist of several individual lug bolts with gripping mechanism that prevents the joints from pulling apart. Glands shall be ductile iron conforming to ASTM A536-80, and dimensions shall be compatible to be used with standard mechanical joint fittings for ductile iron pipe. The mechanical restraint joint shall have a minimum working pressure rating equal to that of the pipe with a safety factor of not less than 2. Restrained joints shall have twist off nuts to insure proper installation of restraining grip mechanism. Mechanical joint restrained coupling shall be EBAA, Iron, Inc. MEGALUG; with Mega-Bond coating; or approved equal. Coating of gland follower body shall be electrostatically applied, and heat cured polyester based powder. Wedge assemblies and bolts shall be coated with heat cured fluoropolymer coatings. Restraints shall be designed for the specific type of pipe to be restrained.
- B. Restrained joint fittings shall meet Uni-B-13 for PVC and be FM and UL approved through 12 inches for both ductile iron and PVC.
- C. Restrained joint fittings for high density polyethylene pipe shall be Victaulic 995 or 997 style coupling.

## *2.14 FASTENERS*

- A. All fasteners shall include washers under both bolt head and nut unless the use of washers is incompatible with the fitting design.

- B. Unless otherwise noted, all bolts, tie rods, and T-bolts used to secure flanges, fittings, and couplings located underground or submerged in liquid shall be Type 304 or 316 stainless steel per ASTM A320 or ASTM A193. Nuts shall be 304 or 316 stainless steel per ASTM A 194 and washers shall be ASTM F436 Type 3.
- C. Unless otherwise noted, all bolts, tie rods, and T-bolts used to secure flanges, fittings, and couplings located indoors, above grade, and in vaults shall be carbon steel conforming to ASTM A307, Grade B with ASTM A563A nuts and ASTM F436 washers. Bolts, nuts, and washers shall be hot dipped galvanized in accordance with ASTM F2329. Stainless steel meeting the requirements of Paragraph B shall also, be acceptable.

### **2.15 INSULATING FLANGE SETS**

- A. Insulating flange sets shall be provided where indicated on the plans and shall consist of insulating gaskets, insulating sleeves and washers and a steel washer. Insulating sleeves and washers shall be one piece when flange bolt diameter is 1-1/2-inch or smaller and shall be made of acetal resin. For bolt diameters larger than 1-1/2-inch, insulating sleeves and washers shall be 2-piece and shall be made of polyethylene or phenolic. Steel washers shall comply with ASTM A 325. Insulating gaskets shall be full-face.

## **PART 3 EXECUTION**

### **3.1 HANDLING AND DISTRIBUTION OF MATERIALS**

- A. Delivery: Handle pipe carefully to ensure delivery at the project site in sound, undamaged condition. Contractor shall replace damaged pipe at no additional expense to the Owner.
- B. Storage: Do not store materials directly on the ground. Adequately support piping to prevent warping. Use protective covers where pipe may be damaged by direct sunlight.
- C. No more than one week's supply of material shall be distributed in advance of pipe laying operations, unless otherwise approved or required.
- D. Before laying, pipe shall be inspected for cracked, broken, or defective pieces. Such pieces shall be rejected. Pipe shall be carefully lowered into the trench to prevent damage. All dirt or other foreign matter shall be removed from inside the pipe before lowering into the trench.

### **3.2 COATING**

- A. Unless otherwise indicated in Part 2, all pipe and fittings shall be coated in accordance with Section 09 90 00.

### **3.3 INSTALLATION OF UNDERDRAINS**

- A. Perforated pipes shall be laid with the perforations down.

### *3.4 INSTALLATION OF BURIED PRESSURE PIPING*

- A. General: Pipe, fittings, and appurtenances shall be installed in accordance with the manufacturer's instructions and in accordance with the following references as appropriate:

1. Ductile Iron Pipe AWWA C600
2. Polyvinyl Chloride Pipe and HDPE pipe AWWA C605.

- B. Handling: The pipe shall be protected to prevent entrance of foreign materials during laying operations. When laying is not in progress, open pipe ends shall be protected with a watertight plug or other approved means to exclude water or foreign material.

- C. Alignment:

1. Mains shall be installed to the grades and elevations indicated and shall have a minimum cover of 30-inches from the top of the pipe to existing ground or paved surface unless otherwise indicated.

2. The allowable angle of deflection at any joint shall not exceed the amount recommended by the pipe manufacturer for the pipe size used. Deviation of any pipe section from the line and grade indicated shall not exceed 1/2-inch.

- D. Joints:

1. Pipe shall be assembled and joined in accordance with the manufacturer's published instructions for the type of pipe and joint used. All portions of the joints shall be thoroughly cleaned before the sections of pipe are assembled. The ends of each pipe shall abut against the next pipe section in such a manner that there shall be no unevenness of any kind along the bottom half of the interior of the pipe. Where mechanical joints are used, the pipe shall be marked in such a manner that it can be determined after installation that the pipe is properly seated.

2. Where flexible couplings are used as expansion joints, the ends of the pipes shall be separated 1-inch to allow for expansion. The welded seam at the end of each coupled steel pipe shall be ground smooth for approximately 12-inches. Couplings shall be centered on pipe ends. Runs of pipe containing flexible couplings shall be properly blocked, anchored or tied to the structure to prevent joints from separating.

3. Mechanical restrained joints shall be installed in accordance with joint manufacturer's instructions and recommendation

- E. Installation of Marker Tape: Install tape in backfill directly over each pipeline, 24 inches over top of pipe, unless shown otherwise on the Plans. Where utilities are buried in a common trench, identify each line by a separate marker tape. Place tapes directly over the applicable line.

### **3.5 THRUST BLOCKS OR MECHANICAL RESTRAINED JOINTS**

- A. Thrust blocks shall be used only where specifically allowed on the drawings or with prior approval by the Engineer.
- B. Place concrete thrust blocks at all tees, elbows, plugs, and other locations where unbalanced forces exist in underground pipe in accordance with details shown. Place blocks between undisturbed ground and fitting to be anchored. Place blocking so that pipe and fittings will be accessible for repairs. Thrust blocks shall be of such size as to give bearing against undisturbed vertical earth banks enough to absorb the thrust from line pressure, allowing a maximum earth bearing pressure of 500 pounds per square foot per foot of depth below natural grade or as shown.
- C. Restrained joint fittings may be used in-lieu of thrust blocks, at the discretion of the Engineer. Contractor shall submit shop drawings showing methods of joint restraint for each type of restrained joint fitting to be used including the length of pipe having restrained push-on joints on all pipes which connect to the restrained fitting.
- D. When it is necessary to restrain push-on joints adjacent to restrained fittings, a harness restraint device shall be used. All harnesses shall have a pressure rating equal to that of the pipe on which it is used. Harness assemblies including tie bolts conform to ASTM A536-80.

### **3.6 INSTALLATION OF EXPOSED PIPING**

- A. General Pipe shall be installed as specified, as indicated on the Plans or, in the absence of detail piping arrangement, in a manner acceptable to the Engineer.
- B. Pipe shall be cut from measurements taken at the site and not from the Plans. All necessary provisions shall be taken in laying out piping to provide throughout for expansion and contraction. Piping shall not obstruct openings or passageways. Pipes shall be held free of contact with building construction so as not to transmit noise resulting from expansion.
- C. The inside of all pipe, valves, and fittings shall be smooth, clean, and free from blisters, loose mill scale, sand, dirt, and other foreign matter when erected. The interior of all lines shall be thoroughly cleaned, to the satisfaction of the Engineer, before being placed in service.

- D. Stuffing box leakage from water sealed pumps shall be contained and not allowed to into storm drains.
- E. Taps for pressure gauge connections on piping and equipment shall be provided with a nipple and a ball type shutoff valve. Drilling and direct tapping of pipe walls for installation of pressure gauges or switches will not be permitted without use of a tapping saddle.
- F. A union shall be provided within 2 feet of each end of threaded end valves unless there are other connections that facilitate easy removal of the valve. Unions shall also, be provided in piping at locations adjacent to devices or equipment that may require removal in the future and at locations required by the Plans or other sections of the Specifications.
- G. Provide unions on exposed piping and tubing 3-inches and smaller as follows:
  - 1. At every change in direction (horizontal and vertical).
  - 2. Downstream of valves, 6 to 12 inches.
  - 3. As shown on plans.
- H. In all piping except air piping, insulating fittings shall be provided to prevent contact of dissimilar metals.
- I. Pipe Joints - Pipe joints shall be carefully and neatly made in accordance with the requirements that follow.
  - 1. Threaded - Pipe threads shall conform to ANSI/ASME B1.20.1, NPT, and shall be full and cleanly cut with sharp dies. Not more than three threads at each pipe connection shall remain exposed after installation. Ends of pipe shall be reamed, after threading and before assembly, to remove all burrs.

Threaded joints in plastic piping shall be made up with Teflon thread tape applied to all male threads. Threaded joints in stainless steel piping shall be made up with Teflon thread sealer and Teflon thread tape applied to all male threads. At the option of the Contractor, threaded joints in other piping may be made up with Teflon thread tape, thread sealer, or a suitable joint compound. Thread tape and joint compound or sealers shall not be used in threaded joints that are to be seal welded.

Threaded joints in steel piping for chlorine service shall be made up with Teflon thread tape or paste applied to all male threads.
  - 2. Compression - Ends of tubing shall be cut square and all burrs shall be removed. The tubing end shall be fully inserted into the compression fitting and the nut shall be tightened not less than 1-1/4 turns and not

more than 1-1/2 turns past finger tight, or as recommended by the fitting manufacturer, to produce a leak tight, torque-free connection.

3. Flared - Ends of annealed copper tubing shall be cut square and all burrs shall be removed prior to flaring. Ends shall be uniformly flared without scratches or grooves. Fittings shall be tightened as required to produce leak tight connections.
4. Soldered and Brazed - Where solder fittings are specified for lines smaller than 2 inches, joints may be soldered or brazed at the option of the Contractor. Joints in 2 inch and larger copper tubing shall be brazed.
5. Flanged -Flange bolts shall be tightened sufficiently to slightly compress the gasket and effect a seal, but not so tight as to fracture or distort the flanges. A plain washer shall be installed under the head and nut of bolts connecting plastic pipe flanges. Anti-seize thread lubricant shall be applied to the threaded portion of all stainless-steel bolts during assembly. Connecting flanges shall have similar facings, i.e., flat or raised face.
6. Welded Welding shall conform to the specifications and recommendations contained in the "Code for Pressure Piping", ANSI B31.1.
7. Grooved Couplings - Grooves for grooved couplings shall be cut with a specially designed grooving tool. Grooves cut in steel pipe shall conform to flexible grooving dimensions as set forth in AWWA C606 and shall be clean and sharp without burrs or check marks.

### **3.7 ACCEPTANCE TESTS AND INSPECTION FOR GRAVITY PIPING**

#### **A. General.**

1. All testing and inspection shall be performed after final backfill and compaction operations are complete. If the Contractor so desires, he may pretest the lines at his own expense, but final testing must be performed after compaction requirements have been approved.
2. If any of the tests or inspections covered in this section indicates that sewers require repair, then after repairs are complete, all testing and inspection shall be performed again. The cost of any retests, including time for the Engineer shall be borne by the Contractor at no additional cost to the Owner.
3. Prior to testing, all lines shall be thoroughly cleaned by flushing, and shall have passed a Wayne ball of appropriate size. Contractor is to submit to the Engineer a detailed procedure on protecting the existing sewer system from contaminants during the flushing operation.

B. Mandrel

1. All sections of completed gravity pipe main lines shall be tested to assure that no potential obstructions are present in the lines. A rigid mandrel with a circular cross section having a diameter not less than 95% of the specified pipe diameter shall pass through the pipe without resistance.

C. Low-Pressure Air Test

1. Supply air to the test section slowly. A constant pressure of 3.5 psig shall be reached and maintain internal pressure of at least 3.0 psig for at least five (5) minutes.
2. After the stabilization period, disconnect the air supply. A pressure loss of 0.5 psig is used to compute the allowable pressure loss using the following formula.
3. The minimum allowable time in minutes for such a pressure drop is determined from the formula  $T_{min} = 0.000183D^2L$ , where:
  - a.  $D$  = Nominal inside diameter of pipe (inches)
  - b.  $L$  = Length of pipe test section (feet)
4. Regardless of the formula, the minimum time allowed for pressure drop shall be eight (8) minutes.
5. The pressure gage for monitoring the air pressure shall have a minimum division of 0.10 psi increments.
6. A valid test is when the air pressure is released from the opposite end of the inlet air entry connection with an air release apparatus outlet connection.
7. Adjustment of Pressure for Groundwater. Should the pipe section being tested lie below the local groundwater table, the test pressures shall be raised in proportion to the depth of the centerline of the pipe below the water table. Additional pressure (beyond the 3.5 psig specified above) shall be added at the rate of 0.433 psig per foot of depth below groundwater.

D. Video

1. Video inspection shall be performed on all new sewer mains. Video inspections shall be paid for by the Contractor and shall be completed prior to the final acceptance of the improvements.

2. The video inspection shall be in color and shall be recorded on a portable drive or DVD, which shall become the property of the Owner.
3. The Engineer shall be the sole judge as to the acceptability of construction revealed by such inspection.
4. Within 24 hours prior to testing, all lines shall be thoroughly flushed with water to assist camera in the identification of low areas.

### 3.8 ACCEPTANCE TESTS FOR BURIED PRESSURE PIPING

#### A. General.

1. All testing and inspection shall be performed after final backfill and compaction operations are complete. If the Contractor so desires, he may pretest the lines at his own expense, but final testing must be performed after compaction requirements have been approved.

#### B. In general, tests shall be conducted in accordance with AWWA 0600 and C651 except as otherwise herein specified.

#### C. All newly installed sections of buried pressure piping shall be pressure and leakage tested as described herein.

1. For buried pressure pipelines, tests shall be made on two or more valve sections not to exceed 2,500 feet in length. The Contractor shall furnish all necessary equipment, material and labor required.
2. Tests shall be made after the trench has been backfilled and compacted, but not until at least 5 days have elapsed since any thrust blocks in the section have been poured.
3. The pipe shall be filled with water and all air expelled from section being tested. A test pressure equal to 1.5 times the design pressure, of the pipe measured at the point of lowest elevation pressure, or 100 psi, whichever is greater, shall be applied.
4. The test pressure in the line shall be maintained for a period of 2 hours. Test pressure shall be maintained within 5 psi during the test period by adding water as required. The water required to maintain test pressure shall be measured by means of a graduated barrel, drum, or similar device at the pump suction or through a meter.

Allowable leakage at the specified test pressure shall not exceed the amounts allowed by AWWA C600,

$$L = (SD (P)^{0.5})/148,000$$



Where:

L = Testing allowance in gallon per hour.

S = Length of pipe tested in feet.

D = Nominal diameter of the pipe in inches.

P = Average test pressure during the hydrostatic test, in pounds per sq. inch.

Hydrostatic testing allowance per 1,000 ft. of pipeline in gal/hr.

PSI	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
200	0.38	0.57	0.76	0.96	1.15	1.34	1.53	1.72	1.91	2.29
175	0.36	0.54	0.72	0.89	1.07	1.25	1.43	1.61	1.79	2.15
150	0.33	0.50	0.66	0.83	0.99	1.16	1.32	1.49	1.66	1.99
125	0.30	0.45	0.60	0.76	0.91	1.06	1.21	1.36	1.51	1.81
100	0.27	0.41	0.54	0.68	0.81	0.95	1.08	1.22	1.35	1.62

5. Should testing disclose any visible leaks or leakage greater than that allowed, the defective joints or pipe shall be located, repaired, and re-tested until satisfactory. The cost of any retests, including time for the Engineer, shall be borne by the Contractor at no additional cost to the Owner

### 3.9 ACCEPTANCE TEST FOR EXPOSED PIPING

- A. Pipe to be Tested - All new installed piping sections shall be pressure and leakage tested as specified herein.
- B. Pressure Testing -After the section of line to be tested has been filled with water or other test media, the test pressure shall be applied and maintained without interruption for 2 hours plus any additional time required for the Engineer to examine all piping undergoing the test and for the Contractor to locate all defective joints and materials.
  1. Test medium shall be potable water for potable water piping; all other piping may be tested using plant water subject to Engineer's approval.
  2. Pipe system shall be tested at 1-1/2 times the operating pressure, or 100 psi, whichever is greater, using the appropriate test fluid medium.

3. All piping shall be tight and free from leaks. All pipe, fittings, valves, pipe joints, and other materials that are found to be defective shall be removed and repaired or replaced with new and acceptable material, and the affected portion of the piping be retested until satisfactory. The cost of any retests, including time for the Engineer, shall be borne by the Contractor at no additional cost to the Owner. Compressed air or gas under pressure shall not be used to test PVC or other plastic piping unless specifically recommended by the pipe manufacturer.

Leakage may be determined by loss of pressure, soap solution, chemical indicator, or other positive and accurate method acceptable to the Engineer. All fixtures, devices, or other accessories which are to be connected to the lines and which would be damaged if subjected to the specified test pressure shall be disconnected and ends of the branch lines plugged or capped as required during the testing procedures.

### **END OF SECTION**

## **SECTION 40 05 20**

### **VALVES**

#### **PART 1 GENERAL**

##### **1.1 WORK INCLUDED**

- A. This section includes materials, testing, and installation of manually operated valves and check valves including gate, butterfly, ball, hose bibs, globe, check, solenoid, mud valves, vacuum breakers and flap valves.

##### **1.2 RELATED WORK**

- A. Section 05 05 20 - Bolts, Washers, and Anchors
- B. Section 09 90 00 - Painting and Coating
- C. Section 40 05 62 - Eccentric Plug Valves

##### **1.3 REFERENCES**

- A. ASTM A126 Class B "Gray Iron Castings for Valves, Flanges and Pipe Fittings"
- B. ANSI B16.1 "Pipe Flanges and Flanged Fittings"
- C. AWWA C517 Resilient-Seated Cast-Iron Eccentric Plug Valves
- D. AWWA C-509

##### **1.4 SUBMITTAL REQUIREMENTS**

- A. As specified in Section 01 33 00 – Submittals.
- B. Submit manufacturer's catalog data. Show manufacturer's model number.
- C. Submit dimensions including wall thickness and materials of construction by reference standard and grade. Submit information on interior and exterior coatings as applicable.

##### **1.5 QUALITY ASSURANCE**

- A. Supplier shall have been manufacturing valves for a period of at least ten years. At the Engineer's request, supplier shall provide a list of installations involving equipment of similar size and application
- B. Valves and Actuators shall be warranted by the manufacturer for defects in materials and workmanship for a period of two years (24 months) from date of shipment.
- C. Each valve and actuator shall be assembled, adjusted and tested as a unit by the valve manufacturer.

## **PART 2 PRODUCTS**

### **2.1 GENERAL**

- A. Install valves complete with operating handwheels or levers, chainwheels, extension stems, floor stands, gear actuators, operating nuts, chains, and wrenches required for operation.
- B. Valves shall have the name of the manufacturer and the size of the valve cast or molded onto the valve body or bonnet or shown on a permanently attached plate.

### **2.2 VALVE ACTUATORS**

- A. Provide lever or wrench actuators for exposed valves 6 inches and smaller. For larger valves, provide handwheels.
- B. Where manually operated valves (size 4 inches and larger) are installed with their centerlines more than 6 feet 9 inches above the floor, provide chainwheel and guide actuators.
- C. Provide 2-inch AWWA operating nuts for buried and submerged valves.
- D. Gear actuators shall be enclosed, oil lubricated, with seals provided on shafts to prevent entry of dirt and water into the actuator. Gear actuators for valves located above ground or in vaults and structures shall have handwheels. The actuators for valves in exposed service shall contain a dial indicating the position of the valve disc or plug. Gear actuators for buried or submerged valves shall have 2-inch-square AWWA operating nuts.
- E. For buried or submerged service or valves installed in buried vaults, provide watertight shaft seals and watertight valve and actuator cover gaskets. Provide totally enclosed actuators designed for buried or submerged service.

Traveling nut and worm and gear actuators shall be of the totally enclosed design so proportioned as to permit operation of the valve under full differential pressure rating of the valve with a maximum pull of 40 pounds on the handwheel or crank. Provide stop limiting devices in the actuators in the open and closed positions. Actuators shall be of the self-locking type to prevent the disc or plug from creeping. Design actuator components between the input and the stop-limiting devices to withstand without damage a pull of 200 pounds for handwheel or chainwheel actuators and an input torque of 300 foot-pounds for operating nuts when operating against the stop.

- F. Handwheel diameters for traveling nut actuators shall not exceed 8 inches for valves 12 inches and smaller and shall not exceed 12 inches for valves 20 inches and smaller.
- G. Self-locking worm gear shall be a one-piece design of gear bronze material (ASTM B427; or ASTM B84, Alloy C86200), accurately machine cut. The worm shall be hardened alloy steel (ASTM A322, Grade G41500 or G41400; or ASTM A148, Grade 105-85), with thread ground and polished. Support worm-gear shaft at each end by ball or tapered roller bearings. The reduction gearing shall run in a proper

lubricant. The handwheel diameter shall be no more than twice the radius of the gear sector in contact with the worm. Worm-gear actuators shall be Limitorque Model HBC, EIM Series W, or equal.

- H. Design actuators on buried valves to produce the required torque on the operating nut with a maximum input of 150 foot-pounds.
- I. Valve actuators, handwheels, or levers shall open by turning counterclockwise.

### 2.3 CAST IRON VALVE BOXES AND RISERS

- A. Valve boxes shall be Christy G5 with Christy Iron Covers or equal unless otherwise shown on the Drawings.
- B. Risers shall be 8-inch nominal diameter PVC pipe conforming to AWWA C900

### 2.4 EXTENSION STEMS FOR BURIED AND SUBMERGED VALVE ACTUATORS

- A. Where the depth of the valve is such that its centerline is more than 4 feet below grade, provide operating extension stems to bring the operating nut to a point 6 inches below the surface of the ground and/or box cover. Where the valve is submerged, provide operating extension stems to bring the operating nut to 6 inches above the water surface. Extension stems shall be steel, solid core, and shall be complete with 2-inch-square operating nut. The connections of the extension stem to the operating nuts and to the valve shall withstand without damage a pull of 300 foot-pounds.
- B. Extension stem diameters shall be as tabulated below:

Valve Size (inches)	Minimum Extension Stem Diameter (inches)
2	$\frac{3}{4}$
3,4	$\frac{7}{8}$
6	1
8	1-1/8
10,12	1-1/4
14	1-3/8

### 2.5 BOLTS AND NUTS FOR FLANGED VALVES

- A. Bolts and nuts for flanged valves shall be as described in Section 33 01 00.

## 2.6 GASKETS FOR FLANGES

- A. Gaskets for flanged end valves shall be as described in Section 33 01 00.

## 2.7 PAINTING AND COATING

- A. Coat metal valves located above ground or in vaults and structures the same as the adjacent piping. If the adjacent piping is not coated, then coat valves per Section 09 90 00. Apply the specified prime coat at the place of manufacture. Apply intermediate and finish coats in field.
- B. Coat buried metal valves at the place of manufacture per Section 09 90 00, System No. 7.
- C. Coat submerged metal valves, stem guides, extension stems, and bonnets at the place of manufacture per Section 09 90 00, System No. 1.
- D. Line the interior metal parts of metal valves 4 inches and larger, excluding seating areas and bronze and stainless-steel pieces, per Section 09 90 00, System No. 1. Apply lining at the place of manufacture.
- E. Alternatively, line and coat valves with fusion-bonded epoxy.
- F. Test the valve interior linings and exterior coatings at the factory with a low-voltage (22.5 to 80 volts, with approximately 80,000-ohm resistance) holiday detector, using a sponge saturated with a 0.5% sodium chloride solution. The lining shall be holiday free.
  - 1. Measure the thickness of the valve interior linings per Section 09 90 00. Repair areas having insufficient film thickness per Section 09 90 00.

## 2.8 PACKING, O-RINGS AND GASKETS

- A. Unless otherwise stated in the detailed valve specifications, packing, O-rings, and gaskets shall be one of the following non-asbestos materials:
  - 1. Teflon.
  - 2. Kevlar aramid fiber.
  - 3. Acrylic or aramid fiber bound by nitrile. Products: Garlock "Bluegard," Klinger "Klingersil C4400," or equal.
  - 4. Buna-N (nitrile).

## 2.9 RUBBER SEATS

- A. Rubber seats shall be made of a rubber compound that is resistant to free chlorine and monochloramine concentrations up to 10 mg/L in the fluid conveyed.

## 2.10 GATE VALVES

- A. Above ground Bronze Gate Valves 3 Inches and smaller: Aboveground threaded end gate valves, 1/4 through 3 inches, for water and air service shall be rising stem, solid wedge disc type. Materials of construction shall be as follows:

Component	Material	Specification
Body and bonnet	Bronze	ASTM B61 or B62
Disc or wedge	Bronze	ASTM B61, B62, or B584
Stem	Bronze or copper	(Alloy C87600), B371
Seat rings (Classes 200 and 300 only)	Stainless steel	AISI Type 410

Handwheels shall be aluminum, brass, or malleable iron. Packing shall be Teflon or Kevlar aramid fiber.

- B. Aboveground Bronze Gate Valves 3 Inches and Smaller (Low Lead). Aboveground gate valves, 1/4 through 3 inches, for water service shall be rising stem, screwed bonnet, solid wedge disc type, Class 200, having a minimum working pressure of 200 psi CWP at a temperature of 150°F and conforming to MSS SP-80. Materials of construction shall be as follows:

Component	Material	Specification
Body and bonnet	Bronze	ASTM B584
Disc or wedge	Bronze	ASTM B61, B62, or B584
Stem	Bronze or copper	
Seat rings (Classes 200 and 300 only)	Stainless steel	AISI Type 410

Bronze alloys having a maximum lead content of 0.25%, a maximum zinc content of 7.0%, and a minimum copper content of 80% may be substituted or the bronze alloys specified above.

Handwheels shall be aluminum, brass, or malleable iron. Packing shall be Teflon or Kevlar aramid fiber. Valves shall be Nibco 113-LF or equal. specified above

- C. Ductile-Iron Resilient Wedge Gate Valves 4 through 36 Inches:

Valves shall comply with AWWA C515 or AWWA C509 and the following. Valves shall be of the bolted-bonnet type with nonrising stems. Valve stems shall be Type 304 or 316 stainless steel or cast, forged, or rolled bronze. Provide operating nut for buried valves. Provide handwheel for exposed valves. Stem nuts shall be made of solid bronze. Bronze for internal working parts, including stems, shall not contain more than 2% aluminum or more than 7% zinc. Bronze shall conform to ASTM B62 or ASTM B584 (Alloy C83600), except the stem bronze shall have a minimum tensile strength of 60,000 psi, a minimum yield strength of 30,000 psi, and a minimum of 10% elongation in 2 inches (ASTM B584 or B763, Alloy C87600 or C99500). Body bolts shall be Type 316 stainless steel. End connections for exposed valves shall be flanged. End connections for buried valves shall be flanged or mechanical joint type. Provide reduction thrust bearings above the stem collar. Stuffing boxes shall be O-ring seal type with two rings located in stem above thrust collar. Each valve shall have a smooth unobstructed waterway free from any sediment pockets.

- D. Valves shall be lined and coated at the place of manufacture with either fusion-bonded epoxy or heat-cured liquid epoxy. Minimum epoxy thickness shall be 8 mils.

Manufacturers: Clow, AVK, American Flow Control, Waterous, Kennedy, or equal.

#### **2.11 INSERTION VALVE 14" TO 16" NOMINAL SIZE**

- A. Valve design shall allow valve to be inserted into a working, pressurized, pipeline without leakage or disrupting pipeline service. The valve shall be installed by first by mounting the valve body onto the host pipe, hot tapping the host pipe and then inserting the valve cartridge into the valve body. The valve shall be bubble tight, zero leakage. Provide non-rising stem for buried service. Valve shall be rated for a maximum working pressure of 250 psi.
- B. Valve construction. Valve body clamp: 304 stainless steel; valve body branch: 304 stainless steel; valve stem: 304 stainless steel; Gate: cast nylon, Type 6; valve bonnet: carbon steel, epoxy coated; hardware, nuts, bolts, washers: stainless steel.

#### **2.12 BALL VALVES:**

- A. Full Port Threaded Bronze Ball Valves 2 Inches and smaller:

Ball valves, 2 inches and smaller, for air or water service shall have a pressure rating of at least 600 psi WOG at a temperature of 100°F. Provide full port ball and body design. Valves shall comply with MSS SP-110. Provide bronze (ASTM B62 or ASTM B584, Alloy C83600 or C84400) body and plug ball retainer. Ball and stem shall be Type 316 stainless steel. Valves shall have threaded ends (ASME B1.20.1), nonblowout stems, reinforced Teflon seats, and have plastic-coated lever actuators. Valves shall be Stockham T-285 Series, Apollo 77C-140 Series, or equal.

- B. Full Port Threaded Bronze Ball Valves 2 Inches and smaller (Low Lead):

Ball valves, 2 inches and smaller, for water service shall have a pressure rating of at least 600 psi WOG at a temperature of 100°F. Provide full port ball and body design. Valves shall comply with MSS SP-110. Materials of construction shall be as follows:



Component	Material	Specification
Body	Bronze	ASTM B584. Alloy C89836
Ball	Bronze	ASTM B584. Alloy C89836
Ball retainer	Bronze	ASTM B584. Alloy C89836
Stem	Bronze	
Seats	Reinforced Teflon	

Bronze alloys having a maximum lead content of 0.25%, a maximum zinc content of 7.0%, and a minimum copper content of 80% may be substituted for the bronze alloys specified above. Valves shall have threaded ends (ASME B1.20.1), non-blowout stem. Bronze alloys having a maximum lead content of 0.25%, a maximum zinc content of 7.0%, and a minimum copper content of 80% may be substituted for the bronze alloys specified above. Valves shall have threaded ends (ASME B1.20.1), nonblowout stems, and have plastic-coated lever actuators.

Valves shall be Apollo 77CLF Series or equal.

Stops shall be Ford Ballcorp Type FB 1700, James Jones J-1931, or equal. Stems, and have plastic-coated lever actuators.

C. Threaded Stainless Steel Ball Valves 3 Inches and Smaller:

Ball valves, 2 inches and smaller, for air or water service shall have a pressure rating of at least 600 psi WOG at a temperature of 100°F. Provide full port ball and body design. Valves shall comply with MSS SP-110. Provide A351-CF8M stainless steel body and plug ball retainer. Ball and stem shall be Type 316 stainless steel. Valves shall have threaded ends (ASME B1.20.1), nonblowout stems, reinforced Teflon seats, and have plastic-coated stainless-steel lever actuators. Valves shall be Stockham, Apollo 76-100 Series, or equal.

B198 (Alloy C87600). Valves shall have a cold-water service pressure rating of at least 150 psi. Provide cap and chain with valve. Threads on the valve outlet shall be American National Standard fire hose coupling screw thread. Valves shall be Powell Figure 151 with Figure 527 nipple adapter, Crane 17TF with hose nipple adapter, or equal.

## 2.13 CHECK VALVES

A. Cast-Iron Swing Check Valves 3 Inches and Larger, Class 125:

Swing check valves, 3 inches and larger, shall be iron body, bronze mounted complying with AWWA C508 with the following materials of construction:

Component	Material	Specification
Disc or clapper seat ring and valve body seat ring	Bronze or brass	ASTM B62 or ASTM B584 (Alloy C84400)
Body & Cap (bonnet)	Cast iron	ASTM A126, Class b
Disc & hinge or arm	Cast iron or bronze	ASTM A126, Class B; ASTM B62
Hinge pin	Stainless steel	Type 303,304 or 410 stainless
Cover bolts & nuts	Stainless steel	ASTM A193, Grade B8M; ASTM A194 Grade 8M
Internal fasteners	Bronze or Type 404 or 316 Stainless steel	

Bronze or brass components in contact with water shall comply with the following requirements:

<u>Constituent</u>	<u>Content</u>
Zinc	7% maximum
Aluminum	2% maximum
Lead	8% maximum
Copper + Nickel + Silicon	83% minimum

Ends shall be flanged, Class 125, ASME B16.1. Minimum valve working pressure shall be 150 psi. Provide check valves with outside lever and weight.

The shop drawing submittal shall include a detail showing how the hinge pin extends through the valve body. Show packing gland, hinge pin gland, cap, and other pieces utilized.

Valves shall be M&H, Clow or equal.

B. Duckbill-Shaped Check Valves, 1 through 54 Inches, Class 125:

Valve shall consist of a contoured rubber body with a duckbill sleeve-type exit. The body entrance shall be round, with a connecting Class 125 ASME B16.1 rubber flange to match the connecting pipe. Provide synthetic fabric reinforcement. Provide stainless steel backing rings on the rubber body flanges. The valve shall open at a differential pressure of 2 inches of water column and shall close under a no-flow condition. Minimum body pressure rating shall be 50 psi. Maximum backpressure: 10 psi. Products: Red Valve Company "Tideflex" Model 35 or equal.

## 2.14 FLAP VALVES

- A. Type 1—Flap Valves: Flap valves shall have cast-iron body (ASTM A48 or A126) with bronze (ASTM B62) hinge pin, flap ring, and seat. Ends shall be flanged, spigot end, or hub to match the connecting pipe. Products: Clow F-3012, F-3014, F-3016; Waterous Flap Valves; Waterman Industries; or equal.

## PART 3 EXECUTION

### 3.1 VALVE SHIPMENT AND STORAGE

- A. Provide flanged openings with metal closures at least 3/16-inch thick, with elastomer gaskets and at least four full-diameter bolts. Install closures at the place of valve manufacture prior to shipping. For studded openings, use all the nuts needed for the intended service to secure closures. Alternatively, ship flanged valves 3 inches and smaller in separate sealed cartons or boxes.
- B. Provide threaded openings with steel caps or solid-shank steel plugs. Do not use nonmetallic (such as plastic) plugs or caps. Install caps or plugs at the place of valve manufacture prior to shipping. Alternatively, ship valves having threaded openings or end connections in separate sealed cartons or boxes.
- C. Store resilient seated valves in sealed polyethylene plastic enclosures with a minimum of one package of desiccant inside. Store resilient seated valves in the open or unseated position. Valves with adjustable packing glands shall have the packing gland loosened prior to storage. Inspect valves at least once per week, replace desiccant if required and repair damaged storage enclosures. Do not store valves with resilient seats near electric motors or other electrical equipment.
- D. Inspect valves on receipt for damage in shipment and conformance with quantity and description on the shipping notice and order. Unload valves carefully to the ground without dropping. Use forklifts or slings under skids. Do not lift valves with slings or chain around operating shaft, actuator, or through waterway. Lift valves with eyebolts or rods through flange holes or chain hooks at ends of valve parts.
- E. Protect the valve and actuators from weather and the accumulation of dirt, rocks, and debris. Do not expose rubber seats to sunlight or ozone for more than 30 days. Also, see the manufacturer's specific storage instructions.
- F. Make sure flange faces, joint sealing surfaces, body seats, and disc seats are clean. Check the bolting attaching the actuator to the valve for loosening in transit and handling. If loose, tighten firmly. Open and close valves having manual or power actuators to make sure the valve operates properly and that stops, or limit switches are correctly set so that the valve seats fully. Close valve before installing.

### 3.2 *FACTORY PRESSURE TESTING*

- A. Hydrostatically test the valve pressure-containing parts at the factory per the valve specification or per the referenced standard. If no testing requirement is otherwise specified or described in the referenced standards, then test with water for 30 minutes minimum at a pressure of 1.5 times the rated pressure but not less than 20 psig. Test shall show zero leakage. If leaks are observed, repair the valve and retest. If dismantling is necessary to correct valve deficiencies, then provide an additional operational test and verify that the valve components function.

### 3.3 *INSTALLING VALVES – GENERAL*

- A. Remove covers over flanged openings and plugs from threaded openings, after valves have been placed at the point to which the valves will be connected to the adjacent piping. Do not remove valves from storage cartons or boxes until they are ready to be installed.
- B. Handle valves carefully when positioning, avoiding contact or impact with other equipment, vault or building walls, or trench walls.
- C. Clean valve interiors and adjacent piping of foreign material prior to making up valve to pipe joint connection. Prepare pipe ends and install valves in accordance with the pipe manufacturer's instructions for the joint used. Do not deflect pipe-valve joint. Do not use a valve as a jack to pull pipe into alignment. The installation procedure shall not result in bending of the valve/pipe connection with pipe loading.
- D. Make sure valve ends and seats are clean. Check exposed bolting for loosening in transit and handling and tighten to manufacturer's recommendations. Open and close the valve to make sure it operates properly and that stops, or limit switches are correctly set so that the vane, ball, gate, needle, diaphragm, disc, plug, or other seating element seats fully. Close the valve before installing. Check coatings for damage and repair. Handle valves carefully when positioning, avoiding contact or impact with other equipment or structures
- E. Prior to assembly, coat threaded portions of stainless-steel bolts and nuts with lubricant.

### 3.4 *INSTALLING EXPOSED VALVES*

- A. Unless otherwise indicated in the drawings, install valves in horizontal runs of pipe having centerline elevations 4 feet 6 inches or less above the floor with their operating stems vertical. Install valves in horizontal runs of pipe having centerline elevations between 4 feet 6 inches and 6 feet 9 inches above the floor with their operating stems horizontal.
- B. Install valves on vertical runs of pipe that are next to walls with their stems horizontal, away from the wall. Valves on vertical runs of pipe that are not located next to walls shall be installed with their stems horizontal, oriented to facilitate valve operation.

### 3.5 *INSTALLING BURIED VALVES*

- A. Connect the valve, coat the flanges, apply polyethylene encasement, and place and compact the backfill to the height of the valve stem.
- B. Place block pads under the riser pipe to maintain the valve box vertical during backfilling and repaving and to prevent the riser pipe from contacting the valve bonnet.
- C. Secure the riser pipe with backfill and compact. Install the valve box and pour the concrete collar. In pavement areas pour the collar to 2 inches below the finished pavement grade to allow asphalt concrete to be placed over the collar. In non-paved areas, place the collar to the top of the valve box.

### 3.6 *FIELD COATING BURIED VALVES*

- A. Coat flanges of buried valves and the flanges of the adjacent piping, and the bolts and nuts of flanges and mechanical joints, per Section 09 90 00, **System No. 24**.
- B. Wrap buried metal valves in two layers of polyethylene conforming to AWWA C105, 8 mils in thickness each. Pass the two sheets of polyethylene under the valve and the coated flanges or joints with the connecting pipe and draw the sheets around the valve body, the valve bonnet, and the connecting pipe. Secure the sheets with plastic adhesive tape about the valve stem below the operating nut and about the barrel of the connecting pipe to prevent the entrance of soil. Fold overlaps twice and tape. Backfill the valve with care to avoid damaging the polyethylene.

### 3.7 *ASSEMBLING JOINTS*

- A. Bolt holes of flanged valves shall straddle the horizontal and vertical centerlines of the pipe run to which the valves are attached. Clean flanges by wire brushing before installing flanged valves. Clean flange bolts and nuts by wire brushing, lubricate threads with oil and graphite, and tighten nuts uniformly and progressively. If flanges leak under pressure testing, loosen or remove the nuts and bolts, reseal or replace the gasket, reinstall or retighten the bolts and nuts, and retest the joints. Joints shall be watertight.
- B. Clean threaded joints by wire brushing or swabbing. Apply Teflon joint compound or Teflon tape to pipe threads before installing threaded valves. Joints shall be watertight.

### 3.8 *INSTALLING EXTENSION STEM GUIDE BRACKETS*

- A. Install at 6 to 8-foot centers. Provide at least two support brackets for stems longer than 10 feet, with one support near the bottom of the stem and one near the top.

### 3.9 *MOUNTING GEAR ACTUATORS*

- A. The valve manufacturer shall select and mount the gear actuator and accessories on each valve and stroke the valve from fully open to fully closed prior to shipment.

### 3.10 FIELD TESTING

- A. Test valves for leakage while the connecting pipelines are hydrostatically tested. See Section 40 05 15 for pressure testing requirements. Protect or isolate any parts of valves, actuators, or control and instrumentation systems whose pressure rating is less than the pressure test. Valves shall show zero leakage. Repair or replace any leaking valves and retest.
- B. Operate manual valves through three full cycles of opening and closing. Valves shall operate from full open to full close without sticking or binding. Do not backfill buried valves until after verifying that valves operate from full open to full closed. If valves stick or bind, or do not operate from full open to full closed, repair or replace the valve and repeat the tests.
- C. Gear actuators shall operate valves from full open to full close through three cycles without binding or sticking. The pull required to operate handwheel- or chainwheel-operated valves shall not exceed 40 pounds. The torque required to operate valves having 2-inch AVVVVA nuts shall not exceed 150 ft-lbs. If actuators stick or bind or if pulling forces and torques exceed the values stated previously, repair or replace the actuators and repeat the tests. Operators shall be fully lubricated in accordance with the manufacturer's recommendations prior to operating.

### END OF SECTION

## **SECTION 40 05 21**

### **ECCENTRIC PLUG VALVES**

#### **PART 1 GENERAL**

##### **1.1 WORK INCLUDED**

- A. Eccentric Plug valves, 3"-60" (80 – 1500 mm), of rectangular port construction with resilient faced cylindrical plugs eccentrically offset from the seat, for the purpose of providing isolation or throttling control as indicated. Valves shall be suitable for use municipal wastewater for primary sludge, scum and primary effluent.

##### **1.2 RELATED WORK**

- A. Section 05 05 20 – Bolts, Washers, and Anchors
- B. Section 09 90 00 - Painting and Coating
- C. Section 40 05 20 - Valves

##### **1.3 REFERENCES**

- A. ASTM A126 Class B "Gray Iron Castings for Valves, Flanges and Pipe Fittings"
- B. ANSI B16.1 "Pipe Flanges and Flanged Fittings"
- C. AWWA C517 Resilient-Seated Cast-Iron Eccentric Plug Valves

##### **1.4 SUBMITTAL REQUIREMENTS**

- A. As specified in Section 01 33 00 – Submittals.
- B. Submit manufacturer's catalog data. Show manufacturer's model number.
- C. Submit dimensions including wall thickness and materials of construction by reference standard and grade. Submit information on interior and exterior coatings as applicable.

##### **1.5 QUALITY ASSURANCE**

- A. Supplier shall have been manufacturing eccentric plug valves for a period of at least ten years. At the Engineer's request, supplier shall provide a list of installations involving equipment of similar size and application
- B. B. Valves and Actuators shall be warranted by the manufacturer for defects in materials and workmanship for a period of two years (24 months) from date of final project acceptance.
- C. C. Each valve and actuator shall be assembled, adjusted and tested as a unit by the valve manufacturer.

## **PART 2 PRODUCTS**

### **2.1 ACCEPTABLE MANUFACTURERS**

- A. DeZurik
- B. Val-Matic

### **2.2 ECCENTRIC PLUG VALVES**

- A. Plugs shall be solid one piece, cast Cast Iron ASTM A126 Class B or Ductile Iron ASTM 536 Grade 65-45-12. The plug shall have a cylindrical seating surface eccentrically offset from the center of the shaft. Plug shall not contact the seat until at least 90% closed. Resilient plug facing shall be Chloroprene (CR). Spherical shaped plugs are not acceptable.
- B. Bodies shall be Cast Iron ASTM A126 Class B. Ports shall be rectangular and 100% Port. The valve port area shall meet or exceed standard pipe area per ASME/ANSI B36.10M. Round ports are not acceptable. Bearings shall be sleeve type and made of sintered, oil impregnated permanently lubricated type 316 stainless steel, ASTM A743 Grade CF8M through 36" (900mm). In valves larger than 36" (900mm), the upper and lower plug journals shall be fitted with ASTM A240 type 316 stainless sleeves with body bearings of ASTM B30, Alloy C95400 aluminum bronze.
- C. Seats shall be 1/8" thick welded overlay of not less than 95% pure nickel. Seat shall be at least 1/2" wide, 1/8" thick through entire width and raised. The raised surface shall be completely covered with nickel to ensure that the resilient plug face contacts only the nickel seat.
- D. Adjustable packing shall be Acrylonitrile-Butadiene (NBR) multiple V-ring type, with a packing gland follower. Packing gland shall permit inspection, adjustment or complete replacement of packing without disturbing any part of the valve or actuator assembly, except the gland follower. Non-adjustable packing or packing requiring actuator removal to replace the packing, is not acceptable.
- E. Pressure ratings shall be 175 psi (1210 kPa) on valve sizes through 12" (300 mm) and 150 psi (1035 kPa) for 14" (350 mm) and larger. Every valve shall be given a certified hydrostatic shell test and seat test, with test reports being available upon request.
- F. All valves larger than 6" shall be installed with worm gear actuators. All gearing shall be enclosed in a cast iron housing, with outboard seals to protect the bearings and other internal components. The actuator shaft and gear quadrant shall be supported on permanently lubricated bronze bearings.
- G. Buried actuators shall be 90% grease filled. Input shaft and fasteners shall be stainless steel. Actuator mounting brackets shall be totally enclosed. Other actuators to be installed according to drawings or customer specifications.



- H. End connections shall meet or exceed the latest revisions of AWWA C517 and other applicable standards. End Connections shall be Flanged drilled per ANSI B16.1.
- I. The interior and exterior of the valve shall be fusion bonded epoxy coated.

## **PART 3 EXECUTION**

### **3.1 INSTALLATION**

- A. In applications of liquids with suspended solids or dirty gases:
  - 1. For valves installed in a vertical pipeline, or where the possibility of overhead drain-back exists, install the valve with the seat at the top to prevent drain-back solids from settling into the valve body.
  - 2. For valves installed in a horizontal pipeline, install the valve so the plug rotates up when opened. Where drain-back does not exist, install the valve with the higher pressure, when closed, against the end opposite the seat.
- B. In applications of clean liquids and gases for eccentric plug valves installed in a horizontal or vertical pipeline, it is recommended that the valve be installed with the higher pressure against the end opposite the seat.

**END OF SECTION**

## **SECTION 40 96 32**

### **EFFLUENT PUMP CONTROL SYSTEM**

#### **PART 1 GENERAL**

##### *1.1 SECTION DESCRIPTION*

This section, in conjunction with specific requirements contained in the drawings, plans and specifications, describes EFFLUENT PUMP CONTROL SYSTEM. The Contractor is responsible for providing a complete functional, factory tested, and debugged effluent pump control system based on wet well level.

##### *1.2 RELATED WORK*

- A. Section 16 00 00 Electrical

##### *1.3 QUALITY ASSURANCE*

Pump control system manufacturer and integrator shall have a minimum of five years' experience in the design, manufacture, programming, and service of pump controllers designed for the water and wastewater industry. Service of the pump controller shall be available within the State of California.

#### **PART 2 PRODUCTS**

##### *2.1 PUMP CONTROL SYSTEM*

- A. The Effluent Pumps, comprised of three end suction horizontal pumps, shall be controlled based on water level in the effluent wet well. An ultrasonic level measuring sensor/transmitter, located in the effluent wet well, will continuously measure level and transmit a 4-20 ma signal (or other equivalent means) to a pump controller.
- B. Instantaneous wet well level readings by the level sensor shall be readable from the pump controller. Set points for pump control shall be adjustable by the Operator at the pump controller.
- C. The controller shall control the operation of three pumps. Effluent Pumps 1 and 3 are constant speed pumps. Effluent Pump 2 will be variable speed. The controller shall provide for automatic alternation of lead and lag (Pumps 1 and 3) pumps.
- D. An independent and redundant float switch-based level control system utilizing the existing Tesco controller shall be provided for emergency use if the primary controller and/or level sensors fail.

## **2.2 CONTROL DESCRIPTION PRIMARY SYSTEM**

- Level 0 - Low water level (LWL), alarm. Float switch turns off all pumps if pump controller fails.
- Level 1 - All pumps off
- Level 2 – Effluent Pump 2 (VSD) starts at 50% speed and adjusts speed to maintain constant level.
- Level 3 – Effluent Pump 1 starts and Effluent Pump 2 stops. On falling level, Effluent Pump 1 shuts off at Level 1.
- Level 4 – Effluent Pump 3 starts. On falling level, Effluent Pump 3 shuts off at Level 3.
- Level 5 - High water alarm. Redundant float switch operates Pump 1 and 3 should pump controller fail.

Pumps 1 and 3 alternate each time Level 1 is reached.

Assuming all pumps are off, and water is at Level 1, on rising water in wet well reaching Level 2, Effluent Pump 2 shall start at 50% speed. If the wet well level falls, the pump will reduce speed proportionally until it reaches its minimum speed. It will continue to operate at minimum speed until Level 1 is reached and the pump will turn off. If water level rises, the pump controller shall cause the variable frequency drive (VFD) to ramp up the speed of the lead pump to maintain the Level 2 setpoint or within an adjustable band above Level 2 but below Level 3. If, after reaching the programmed maximum speed, the level rises to Level 3, Effluent Pump 1 will start and operate at full speed. Effluent Pump 2 will shut off. If the level rises to Level 4, Effluent Pump 3 will start. If the level drops to Level 3, Effluent Pump 3 will stop. If the water level drops to Level 1, Effluent pump 1 will stop. If water level rises to Level 5, a high-water alarm will be triggered. Effluent Pump 2 will be locked out whenever Pump 1 or 3 is operating.

The pump controller shall include programming with time delays or other means of dampening fluctuations in level readings.

Anytime Level 0 (LWL) is reached, all pumps will be redundantly caused to stop by actuation of the float switch and the LWL alarm will be triggered.

Anytime Level 5 (HWL) is reached, a high-water alarm will be triggered, and Effluent Pumps 1 and 3 will be redundantly caused to start at full speed by the actuation of the float switch.

Every time Level 1 is reached, the lead and lag pumps shall alternate.

## **2.3 CONTROL DESCRIPTION FLOAT SYSTEM**

- Level 0 All pumps off
- Level 3 Effluent Pump 1 on
- Level 4 Effluent Pump 3 on
- Level 5 High water alarm. Lead and lag pumps on by float switch actuation/

The redundant float system shall be continuously enabled and shall operate in parallel with the primary control system.

## **2.4 PUMP CONTROLLER**

Pump controller shall be a continuous level measurement ultrasonic controller capable of operating up to six pumps. The controller shall use echo ranging technology to measure level up to 50 feet in depth with an accuracy of 0.25 percent of range. The level of the wet well shall be shown on an LCD backlit display. The unit shall be a wall mounted NEMA 4x enclosure, operating on 120 volts AC. The unit shall be paired with a compatible ultrasonic level transmitter. The controller shall be HydroRanger 200 as manufactured by Siemens or equal.

## **2.5 ALARMS**

The following alarms shall be transmitted remotely via the SCADA system:

- High water level (HWL) Level 5
- Low water level (LWL) Level 0
- Pump 1 fail
- Pump 2 fail
- Pump 3 fail

## **PART 3 EXECUTION**

### **3.1 GENERAL**

Contractor shall program the pump controller based on the control description. Functionally test the control system by simulating effluent wet well level and demonstrate that the system meets the control specification before placing the system into operation. Once the system is placed in operation, observe, and confirm proper operation for a minimum period of 24 hours.

**END OF SECTION**

## **SECTION 43 11 33**

### **ROTARY POSITIVE DISPLACEMENT BLOWERS**

#### **PART 1 - GENERAL**

##### **1.01 SCOPE OF WORK**

- A. Furnish all labor, materials, equipment, and incidentals required and install complete, ready for operation and field-test new rotary positive displacement blowers and appurtenances, as shown on the Drawings and as specified herein.
- B. The entire blower package and its components shall comply with all applicable safety and environmental regulations.

##### **1.02 RELATED WORK**

- A. Section 46 53 65 Aerated Lagoon Treatment System
- B. Section 40 05 20 Valves, except as otherwise specified herein.
- C. Section Electrical work, except as otherwise specified herein.

##### **1.03 SUBMITTALS**

- A. Submit in accordance with Section 01 33 00, copies of all materials required to establish compliance with this Section. Submittals shall include at least the following information:
  - 1. Certified general arrangement drawings showing materials, details of construction, dimensions, and connections.
  - 2. Complete Blower Performance Data including:
    - a. RPM
    - b. Capacity – scfm and icfm
    - c. Discharge pressure
    - d. dB(A) noise pressure level
    - e. Maximum gear tip speed and rotor tip speed (fpm)
    - f. HP required at rated capacity and pressure
    - g. Rated maximum pressure rise of blowers
  - 3. List of recommended spare parts broken down into on hand parts and long term for 2 years operation and 3 to 5 years operation.
  - 4. Descriptive Brochures
  - 5. Performance Curves
  - 6. Motor Data
  - 7. Valves
  - 8. ISO-1217 Performance Test Results. Slip test results are unacceptable as an alternate. Manufacturer must provide documented results for the purchased machines. Typical or average data is not acceptable.
  - 9. Declaration of Conformity, per Machinery Directive 2006/42/EC, Annex II, No.1 A.

- B. Complete blower package operating and maintenance instructions professionally published, hard copy and electronic copy, shall be furnished for all equipment included under these specifications in accordance with Section 01 33 00.

#### **1.04 QUALITY ASSURANCE**

##### **A. Qualifications**

1. The equipment shall be designed, constructed, and installed in accordance with the best practices and methods and shall operate satisfactorily when installed as shown on the Drawings.
2. The blower(s) shall be covered by a warranty for 24 months from date of commissioning, or a maximum of 30 months from date of shipment.
3. The performance data and manufacturing methods shall achieve a Declaration of Conformity, per Machinery Directive 2006/42/EC, Annex II, No.1 A.

#### **1.06 DELIVERY, STORAGE AND HANDLING**

- A. All equipment shall be completely factory assembled, skid mounted, crated, and delivered to protect against damage during shipment.
- B. All exposed flanges shall be covered and sealed with shrink-wrap to prevent the entrance of moisture. Finished iron or steel surfaces not painted shall be properly protected to prevent rust and corrosion.
- C. All equipment delivered to the site shall be stored as specified in accordance with the manufacturer's instructions.

#### **1.07 MAINTENANCE**

##### **A. Spare Parts**

1. Furnish the following spare parts for each blower package specified:
  - a. Complete set of matched V-belts
  - b. One filter element
  - c. Volume of oil change for first service interval
2. Spare parts shall be properly bound and labeled for easy identification without opening the packaging.

## **PART 2 - PRODUCTS**

#### **2.01 GENERAL**

- A. The contractor shall furnish, install, test and commission a pre-assembled and packaged blower assembly. The blower package shall consist of, in general, a rotary positive displacement blower, housed in a sound attenuating and weatherproof enclosure. The package shall include inlet filter, intake silencer, discharge silencer, motor with belt drive, check valve, safety release valves and variable frequency drive.
- B. Package shall be Aerzen Generation 5 Delta Blower Model GM 80L or manufacturer and model approved in advance of bidding. The blower package shall be assembled by the manufacturer of the rotary positive displacement blower to ensure single source responsibility for blower performance and compatibility of associated accessories.

- C. Blower packages shall be designed to minimize the life-cycle costs and maximize plant reliability. The design and the selection of the components shall be based on a minimum useful life of 15 years and a Mean Time Between Overhauls of 5 years of continuous operation. Bearing life must be submitted by manufacturer of service life, based on specified conditions.
- D. No special foundations shall be required. The blower packages will be installed directly on a concrete slab without grouting the base frame. There shall only be 4 easily accessible anchor points.
- E. Manufacturer shall guarantee that the rotary lobe blower shall provide oil-free operation and be certified to ISO 8573-1 Class Zero.
- F. Blower package shall be serviceable entirely from the front or rear.

## 2.02 *BLOWER PERFORMANCE CRITERIA*

1. Quantity of Machines	3 (2 duty, 1 standby)
2. Design Inlet Temperature	100 °F
3. Site Elevation	206 feet above sea level
4. Design Inlet Pressure	14.6 psia
5. Design Relative Humidity (%)	80%
6. Design Flow	2154/2405 scfm/icfm per machine
7. Minimum Turndown (VFD ONLY)	561/627 scfm/icfm per machine
8. Design Discharge Pressure	6.5 psig
9. Maximum Blower Speed	2513 RPM @ 100% of maximum
10. Brake Horsepower (Max)	89 bHp
11. Motor Size (Max)	100 Hp
12. Free Field Noise Guarantee	78 dB(A) at 1 meter (at design point)

(1) Package BHP to include pressure loss through a clean inlet filter / silencer, pressure loss of the exhaust silencer and check valve.

(2) Package Performance shall be guaranteed to ISO 1217 with a tolerance is +/- 5% on volume flow and +/- 5% on package horsepower. Manufacturer of blower shall provide data for purchased machine.

(3) Sound data shall be from an ISO 2151 method of measurement, in an ISO 3745 qualified test facility. Sound data shall be compliant with a Declaration of Conformity assessment standard.

## 2.03 *MATERIALS OF CONSTRUCTION*

- A. Blower Casing:
  - 1. The blower casing shall be of one-piece construction, with separate sideplates that are bolted and pinned to the housing.

2. Materials shall be close-grained cast iron ASTM A48 suitably ribbed to prevent distortion under the specified operating conditions.
  3. Minimum blower casing pressure rating shall be 36 psig.
  4. Inlet and outlet shall be flanged connections.
  5. The casing shall incorporate a proven means of pulsation cancellation which achieves 90% or better reduction in vibration. Systems without a means of pulsation cancellation shall not be accepted.
  6. The vibration level as measured at the blower casing, in the X/Y planes of the bearings, shall not exceed  $\frac{1}{2}$  "/sec RMS when operating at the specified maximum operating pressure and speed in the actual blower package.
- B. Factory Testing:
- a. Each blower stage shall be factory tested in accordance with ISO 1217 performance test to verify flow and brake horsepower at blower maximum conditions. A slip test shall not be acceptable, nor is average data for the manufactured size.
  - b. The acceptance criteria are +5% tolerance on power and -5% tolerance on flow regardless of the size of the machine.
- C. Rotors:
1. Each rotor shall be of the "stiff" design with first lateral critical speed at least 120% of the maximum allowable operating speed.
  2. The rotors shall be of the straight, three-lobe type, and shall operate without rubbing or liquid seals or lubrication.
  3. Rotor/shaft shall be drop forged in one single piece of AISI 1043 or equivalent. Cast, hollow rotors shall be capped, dust tight. Open rotors are not acceptable.
  4. The rotors shall be statically and dynamically balanced per ISO1940/ANSI S2.19 G6.3.
- D. Bearings:
1. Each rotor/shaft shall be supported by anti-friction bearings and fixed to control the axial location of the rotor/shaft in the unit.
  2. Regardless of theoretical bearing life calculations, the bearings shall be sized for a minimum expected life of 5 years between overhauls. Calculated bearing life shall be submitted, based on specified operating conditions.
- E. Timing Gears:
1. The rotors shall be timed by a pair of single helical AGMA 12 quality gears with hardened and ground teeth: minimum AGMA service factor of 1.70. Spur cut gears are unacceptable.
  2. Gears shall be mounted on the shafts with a tapered interference fit and secured by a locknut. Pinned gears are unacceptable.
- F. Seals:
1. Seal shall be designed to prevent lubricant from leaking into the air stream as well as to prevent oil from leaking out of the machine.



2. Four rotary piston ring shaft seals, an oil slinger and an O-ring seal shall be provided at the point where the shaft passes through the sideplates.
  3. Further provision shall be made to vent the rotor side of the oil seal to atmosphere to eliminate any possible carry-over of lubricant into the air stream.
- G. Lubrication:
1. The timing gears and the bearings shall be splash lubricated. Grease lubrication shall be not acceptable.
- H. Oil Sight Glass:
1. A recessed oil sight glass must be provided on each oil sump.
  2. Protruding sight glasses shall not be acceptable.
- I. Painting:
1. Painting shall be per supplier's standard meeting the following criteria:
    - a. Except for machined sealing and machined mounting surfaces, the package shall be painted in the manufacturers standard color.
    - b. Aluminum, stainless steel, and brass shall not be painted.
    - c. The supplied motor shall not be over sprayed and will be supplied with the motor manufacturer's standard protection and paint color.
    - d. Painted Cast Iron and Carbon Steel shall be Alkyd Resin Primer and Final coat with a total dry film thickness of 70µm. Surface preparation SSPC10 or better.
    - e. Sound enclosure shall be powder-coated polyester base total dry film thickness 80µm.
    - f. Galvanized components shall only be painted with appropriate surface preparation.

## 2.04 BLOWER ACCESSORIES

- A. Inlet Filter / Silencer:
1. Each package shall be supplied with one combination inlet filter silencer.
  2. The inlet filter silencer shall be mounted directly to the inlet flange of the blower.
  3. The filter media efficiency must meet the requirements of ASHRAE 52.2 MERV7 50-70% @3-10 microns corresponding to EN779 G4.
  4. The silencer portion shall be located upstream of the inlet filter.
  5. Filter and silencer performance losses shall be included in the blower performance calculation.
  6. The filter element shall be designed to trap dirt on the inside so that upon changing, dirt does not fall into the machinery. Filters where dirt accumulates on the external surface of the filter will not be permitted.

B. Base Frame / Discharge Silencer:

1. Each package shall be supplied with one combination base frame / discharge silencer.
2. The silencer shall be a chamber type design for maximum sound attenuation and shall not use fibrous or absorption materials of any kind. Internal absorption material has been shown to degrade and internally foul diffusers and will not be permitted.
3. The silencer shall be fabricated of a single shell of pressure vessel quality steel with continuous welds.
4. The silencer shall be subject to a pressure test for tightness and strength at a minimum of 1.65 times the maximum blower operating pressure.
5. The silencer shall have a machined inlet connection where the discharge flange of the blower stage bolts directly to, with no intermediary pieces. Threaded connection between the compressor stage and the discharge silencer is subject to leakage and misalignment and will not be permitted.
6. Discharge silencer performance losses shall be included by the blower vendor in the blower performance calculation.
7. The base frame shall be constructed from welded carbon steel or cast iron that shall be designed to maintain alignment of the blower internal components and the drive during operation.
8. The base frame shall be designed to resist distortion while being installed on vibration isolating mounts.
9. The blower manufacturer shall supply a stainless steel grounding lug fully welded to the base.

C. Flexible Connectors:

1. Each package shall be connected to the plant piping via flexible connector(s) located downstream of the discharge silencer.
2. Flexible connectors shall prevent the transmission of noise and vibrations from the blower package into the piping.
3. Flexible discharge connectors shall be Proco Style 240, Type EE, EPDM, with a standard ANSI flange discharge connection, rated for 300 °F at 20 psig.

D. Electric Motor:

1. Each package shall be supplied with a WEG manufactured TEFC, inverter duty motor that shall operate on 460 Volts, 3 Phase, 60 Hertz current, 1800 RPM. Motor shall meet or exceed NEMA Premium efficiency guidelines.
  - a. Torque NEMA B
  - b. Temperature Rise Class B
  - c. Dust tight enclosures (Severe Duty)
  - d. Class F inverter rated insulation with Class H applied varnish
  - e. 3:1 constant torque
  - f. All cast iron construction, including frame, end bells, conduit box and fan cover

- g. NPT threaded and gasketed F3 top mounted conduit box
  - h. Copper windings
  - i. Re-greaseable bearings, positive pressure lubrication system with automatic drawn plugs – pressure compensated (Frame sizes 254T and larger).
- 2. All frame sizes shall be NEMA standard, suitable for overhung belt drive and with the conduit box location on top of the motor. IEC frame motors shall not be allowed.
  - 3. The motor shall be mounted on a pivoting base to provide automatic tensioning of the belts.
  - 4. The motor nominal rating after any corrections for ambient conditions shall be 10% above the maximum operating bHp.
  - 5. The motor shall have a 1.15 service factor.
  - 6. Motor windings shall be supplied with a normally closed thermostat, one per phase, wired in series to form a fail-safe motor protection circuit for the external fault circuit of the motor controller.
  - 7. Blower manufacturer shall be responsible for coordinating the starting torque requirement of the blower and the motor.
  - 8. limits at the motor's nominal rating.
  - 9. Motors for variable frequency drives (VFDs) shall be specifically rated for inverter duty and shall be severe duty NEMA MG-1 design A or B, premium efficiency, with NEMA MG Class F insulation. Winding temperature rise shall be limited to Class B rise when operating over the specified speed range. Motor insulation shall be designed to meet MG-1, Part 31 (1600 volt peak at a minimum of 0.1 microsecond rise time). Motors shall conform to IEEE 841. All internal surfaces shall be coated with epoxy paint.
  - 10. Inverter duty motors shall be equipped with shaft-grounding with stub staff extended from the motor shaft. Grounding unit shall be equipped with two brushes, totally enclosed, and sealed against environmental contamination. If motor is 125 hp or greater, insulated bearings shall be provided in addition to the shaft grounding ring.
  - 11. Motors shall include bearings with a minimum L-10 life of 50,000 hours. Motors larger than 2 hp shall include re-lubricatable ball bearings.

E. V-Belt Drive:

- 1. Each package shall be supplied with a V-belt drive that shall be of the high capacity type, oil, and heat resistant. Drive shall be designed for a minimum service factor of 1.4 times operating power (bHp), or 1.1 times the motor nameplate Hp, whichever is larger to allow a minimum of 1.4-service factor based on the maximum blower bHp.
- 2. Belt tensioning shall be automatic without the use of any devices or interaction on the part of the operator. Neither slide rails nor load-adjusting springs shall be used
- 3. Sheaves shall be dynamically balanced regardless of the operating speed.

F. Belt Guard:

- 1. The belt drive shall be guarded in compliance with OSHA regulations.

2. Portions of the guard shall be easily removable allowing for belt inspection and replacement.
  3. Guard material shall be perforated carbon steel.
- G. Vibration Isolators:
1. Each package shall be supplied with vibration isolating feet with a minimum efficiency of 80%.
  2. Blower manufacturer shall be responsible for attenuating noise and vibration in the blower package such that no special installation base shall be required, nor shall any additional measures be required to reduce vibrations from the blower package being transmitted to the base or the piping.
- H. Pressure Safety Valve:
1. Each package shall be supplied with a single pressure safety valve on the discharge side of the blower mounted downstream of the discharge silencer and upstream of the check valve.
  2. The safety valve shall be set to protect the blower from exceeding its maximum pressure rating and shall be sized to pass 100% of the design flow.
  3. The safety valve shall be field adjustable, spring loaded, and have a certificate of conformity to PED.
  4. The pressure relief valve shall be housed by the sound enclosure and shall relieve into a segmented section of the sound enclosure. Weighted relief valves inside in the enclosure are not permitted.
- I. Check Valve:
1. Each package shall be supplied with one check valve that shall be installed on the discharge line.
  2. The check valve shall be of the full-bore low pressure-drop, flapper type design with a steel body, and steel flap embedded in EPDM with full-contact seal.
  3. The valve shall be removable without disturbing the piping. Pressure losses produced by the check valve shall be included in the blower performance calculation. Check valves requiring installation in the discharge piping shall not be considered
  4. The valve shall be supplied/manufactured by the blower manufacturer.
- J. Instrumentation:
1. Each package shall be supplied with the following instrumentation:
    - a. Inlet Vacuum Gauge
      - i. Manufacturer's standard gauge with 4" dial and scale from 0 to -40 inches of water column.
      - ii. Gauge to function as a filter maintenance indicator.
    - b. Discharge Pressure Gauge
      - i. Manufacturers standard model 32-0053-02 with 4" dial and scale from 0 to 20 psig.

- ii. The pressure gauge shall have a stainless steel case and be glycerin-filled for pulsation dampening.
    - iii. A pulsation snubber shall be provided.
  - c. Discharge Temperature Gauge / Switch
    - i. Standard gauge with 4" dial and scale from 32°F to 572°F
    - ii. NEMA 4 enclosure, 5A @ 250volt, SA 28 SPDT microswitch
    - iii. UL & CSA approved.
- K. Each blower shall receive its initial oil filling at the factory. Oil to be fully synthetic Delta Lube or Mobil SHC 627.
- L. Acoustical Sound Enclosure:
  - 1. Each package shall be supplied with a sound enclosure covering the entire blower package.
  - 2. The enclosure shall provide suitable protection for outdoor installation under the specified site conditions (wind load).
  - 3. The enclosure shall be designed to be able to install blowers side-by-side with all maintenance done from the front or back of the package.
  - 4. Details shall be as follows:
    - a. Panels shall be made of galvanized steel sheet, powder coated in a light reflecting, blue color per RAL 5001. The skid shall be of the same color.
    - b. Sound enclosure acoustic material shall comply with UL 94 - HF1 for fire-retardant, self-extinguishing, non-dripping materials.
    - c. The enclosure and the blower package shall both be mounted on a skid / oil-drip pan designed for meeting environment protection standards and for easy transportation and installation.
    - d. A grounding strap shall be installed between the blower base and the package skid to bypass any vibration isolating mounts.
    - e. Quick release panels, each less than 50 lbs. (as mandated by OSHA) must provide easy and quick access for routine maintenance of the blower and the package components.
    - f. Enclosure Cooling Fan:
      - i. A high efficiency blower shaft driven ventilation fan shall provide ventilation and cooling integral to the sound enclosure.
      - ii. Cooling fan shall be sized for sufficient heat removal from the sound enclosure, even when the blower is operated with a VFD.
    - g. Electrical components, instrumentation and instrument connections shall not be mounted or interface with moving panels of the sound enclosure.
    - h. Both blower oil sumps shall be piped to a common fill and drain, located at the front of the package for easy maintenance. An oil level indicator shall be mounted on the outside of the enclosure, which gives an accurate oil level

indication while the blower is in operation. All oil lines to be hydraulic hose with fittings. No plastic tubing with compression fittings are allowed.

M. Variable Frequency Drive:

1. Each blower package shall include a factory mounted, 6-pulse, constant torque, variable frequency drive (VFD). The VFD shall be rated for operation at 122 degrees F.
2. Drive shall operate on 460 VAC, 3 phase, 60 hertz power and shall be integrated with the local blower permissive switches.
3. The drive shall include the following features and accessories:
  - a. NEMA 12 enclosure for indoor installation. The VFD shall be mounted on the Blower Package.
  - b. Rotary fused disconnect
  - c. Method to minimize power line harmonics while providing a near unity power factor.
  - d. Input surge protection to withstand surges of 2.3 times line voltage for 1.5 msec.
  - e. Modbus communication over CAT5 cable
  - f. Minimum 100kA SCCR safety rating

## **PART 3 - EXECUTION**

### **3.01 INSTALLATION**

- A. The Manufacturer shall conduct a coordination conference call with the Contractor and Design Engineer to review the integration and installation requirements of the equipment after the Submittal documentation has been approved and prior to installation of the equipment.
- B. The Contractor shall install the blowers in accordance with the Manufacturer's written instructions.
- C. The Contractor shall make all electrical and process connections to the blower package prior to the arrival of the manufacturer's representative.
- D. The Contractor shall complete and return the Manufacturer's installation check list prior to having a Manufacturer's representative come onsite.
- E. Representatives of the blower manufacturer shall verify and adjust blower and motor alignment.

### **3.02 FIELD TESTING**

- A. After installation of all equipment has been completed and as soon as conditions permit, the manufacturer shall provide one (1) trip for a total of two (2) 8 hour days for start-up and training and to verify the installation and conduct an acceptance test under actual operating conditions.
  1. The Manufacturer shall perform a physical check of the blower installation, perform safety checks, power up the equipment and perform functional testing.
  2. The functional test shall consist of 4 hours of operation of each blower with vibration, temperature, and pressure readings as well as motor amp readings taken and recorded at 60-minute intervals.
  3. Installed noise measurements shall be taken to compare the installed noise values with the factory free field ISO 2151 measurements.

4. The Manufacturer shall provide operations and maintenance training to the plant personnel. The training shall consist of 1 hour of classroom training using the Operation and Maintenance Manual for reference and 2 hours of hands on training at the blower package.
- B. If required, Contractor shall make any changes, at his own expense, to the installation that may be necessary to assure satisfactory operation. The manufacturer shall return to repeat the acceptance test at no additional cost to the Owner until the equipment operates satisfactorily.
- C. Manufacturer shall provide a written field test / start up report after completion of testing.
- D. Within one (1) year of startup, the manufacturer shall provide one (1) trip for a total of 1 - (one) 4 hour day for post startup inspection of the equipment and additional training

**END OF SECTION**

## **SECTION 43 23 13**

### **CENTRIFUGAL END SUCTION HORIZONTAL PUMPS**

#### **PART 1 GENERAL**

##### **1.1 WORK INCLUDED**

- A. This section includes furnishing, installing, testing, and commissioning centrifugal end suction horizontal pumps. The pumps shall be solids handling pumps suitable for pumping raw wastewater and primary effluent.

##### **1.2 RELATED WORK**

- A. Section 33 01 00 – Pipe & Fittings
- B. Section 05 05 20 – Bolts, Washers, and Anchors
- C. Section 09 90 00 - Painting and Coating
- D. Section 40 05 20 - Valves

##### **1.3 REFERENCES**

- A. Hydraulic Institute (HI)
- B. ANSI/NSF -61

##### **1.4 SUBMITTAL REQUIREMENTS**

- A. As specified in Section 01 33 00 – Submittals.
- B. Submit manufacturer's catalog data. Show manufacturer's model number.
- C. The submittal shall include, as a minimum the following:
  - 1. Pump manufacturer's catalog data sheet with model, materials of construction for all pump parts with specifications by recognized standard, dimensions, hydraulic analysis and pump curves with the specified operating condition(s) marked, operating speed, rated power, efficiency, NPSH required, maximum power and shutoff head. For pumps specified to be operated with variable speed drive, provide a multi speed analysis showing minimum operating speed. Provide pump and motor weight and anchoring requirements.
  - 2. Pump motor data including rpm, service factor, motor efficiency and temperature rating.
  - 3. Manufacturer's Installation Instructions.



4. Operations and Maintenance Manual.
5. Submit manufacturer's sample form for reporting performance test results two weeks prior to factory pump test.
6. Submit certified pump test reports for review at least two weeks prior to shipping the units from the factory. Show pump total head, flow, brake horsepower, efficiency and required NPSH.
7. For pumps used in potable water systems, submit certification that all wetted materials are certified to ANSI/NSF Standard 61.

## 1.5 QUALITY ASSURANCE

- A. All pumping equipment furnished under this Section shall be of a design and manufacture that has been used in similar applications and it shall be demonstrated to the satisfaction of the Owner that the quality is equal to systems made by the manufacturer specifically named herein. The pump manufacturer shall have a minimum of twenty (20) years of documented experience in the design and production of pumps of all types, and not less than five (5) years of experience in the production of the exact equipment as specified herein. Manufacturers shall provide evidence of at least five (5) installations in which similarly sized systems have provided satisfactory performance for a minimum of five (5) years in a similar application. No consideration will be given to an individually sized pump that has not been commercially available for five (5) years. At the Engineer's request, supplier shall provide a list of installations involving equipment of similar size and application with references and contact information.
- B. To insure a consistent high standard of quality, the manufacturer of this pumping equipment shall comply with the requirements of the ISO 9001 Quality and such compliance shall be verified by an independent certification agency approved by the International Organization for Standardization. Documentation shall be submitted for approval showing compliance with this requirement, and the equipment will not be released for shipment until approved.
- C. Except as modified or supplemented herein, all pumps shall conform to the applicable requirements of ANSI-Hydraulic Institute Standards.
- D. All components of the pump, including pump, base, seal, drive, belts drive etc. shall be supplied as an integrated system. The pump manufacturer shall have complete responsibility for meeting the requirements of this specification.

## 1.6 SERVICES OF MANUFACTURER

- A. Furnish the services of a representative of the pump manufacturer for a minimum period of 6 hours on each of two visits to assist in adjusting and mechanical testing of the equipment furnished, to supervise the initial operation, and to make any final adjustments as may be necessary to assure the Owner that the pump(s) is (are) in satisfactory operating condition. If the initial visit results in the need for additional work or if the pump system is not functional, the Contractor shall provide for a

second visit and subsequent visits until the pumps operate satisfactorily, at no additional cost to the Owner.

- B. Furnish sufficient supervision, data, and information from the manufacturer to train operators in the proper operation and maintenance of the pump(s) furnished.

## **PART 2 PRODUCTS**

### **2.1 ACCEPTABLE MANUFACTURERS**

- A. Pumps shall be manufactured by Aurora, Fairbanks Morse or other manufacturer approved prior to bid submittal.

### **2.2 GENERAL DESIGN REQUIREMENTS**

- A. The fluid to be pumped is municipal wastewater primary effluent. For design and rating purposes, the fluid temperature will range between 60 to 80 degrees F.
- B. The pump curve shall be continuously rising and free from dips and valleys from the design flow to the shutoff head.
- C. Pump performance shall be stable and free from damaging cavitation, vibration, and noise within the operating range.
- D. The pumps will be installed at approximately elevation 200 feet AMSL.
- E. The pump and motor shall be supported on a common base.
- F. All pumps will be rated for continuous duty.
- G. Pumps will be located indoors.

### **2.3 DESIGN CONDITIONS**

- A. Effluent Pump 1 and 3. The basic design is a frame mounted, end suction, horizontal, dry pit, solids handling, non-clog pump.

Design flow: 1,500 gpm

Design head: 85 feet, TDH

Suction diameter: 6-inch

Discharge diameter: 6-inch

Solids diameter: 3-inch

Pump speed: Constant 1750 rpm

Pump minimum efficiency: 78%

Minimum continuous stable flow: 511 gpm

Pump Model; Aurora 6x6x12b

Motor: 50 hp

- B. Effluent Pump 2. The basic design is a frame mounted, end suction, horizontal, dry pit, solids handling, non-clog pump.

Design flow: 1,800 gpm

Design head: 40 feet, TDH

Suction diameter: 8-inch

Discharge diameter: 8-inch

Solids diameter: 3-inch

Pump speed: Variable speed, 875 rpm max, 300 min

Pump minimum efficiency: 82.7%

Minimum continuous stable flow: 200 gpm @ 300 rpm

Pump Model; Aurora Model 610 8x8x15A

Motor: 30 hp

## 2.4 PUMP CONSTRUCTION

- A. Casing: Cast iron, ASTM A48 CL30
- B. Impeller: Cast iron ASTM A48 CL30
- C. Shaft: Steel SAE 1045
- D. Sleeve: Bronze ASTM B62
- E. Gland: Cast iron, ASTM A48 CL30
- F. Power frame: Cast iron, ASTM A48 CL30
- G. Bearing covers: Cast iron, ASTM A48 CL30
- H. Lantern: Glass filled Teflon
- I. Seal: Double mechanical seal, carbon vs ceramic, John Crane Type 8TD
- J. Base: Steel

- K. Surface Preparation: SSPC-SP6 commercial sandblast (except motor), a prime coat of Tnemec 431 epoxy and a finish coat of Tnemec 431 epoxy for total finish of 30 MDFT minimum (except motor).

## 2.5 COUPLING

- A. A flexible coupling shall be provided to connect the pump shaft to the motor shaft. The coupling shall be an all metal type with flexible rubber insert.
- B. Where the motor is VFD driven, the coupling shall be rated for variable speed use.
- C. The entire rotating element shall be enclosed by a Cal/OSHA approved coupling guard.

## 2.6 BASE

- A. The pump and motor shall be mounted on a common groutable steel or cast iron base plate. The base shall be sufficient rigid to support the pump and motor without the use of additional supports or members. The minimum baseplate stiffness shall conform to ANSR/HI 1.3.4 for Horizontal Baseplate Design standards.

## 2.7 MOTOR REQUIREMENTS

- A. Drive motors shall be 480 volts, 3 phase, 60 hertz, 1.15 service factor, foot and C-flange mounted, TEFC, premium efficiency. The motor shall be sized for non-overloading conditions.
- B. Electric motors shall be NEMA Design B, squirrel cage induction motors designed for normal starting torque with low starting current. In no case shall starting torques or breakdown torque be less than the values indicated in ANSI/NEMA MG-1.
- C. Motors shall be fabricated, assembled, and tested in accordance with the most current applicable standards as defined by ANSI, NEMA, and AFBMA. Motors shall comply with ANSI/NEMA MG-1. Motors shall be labeled as being approved by the Underwriters Laboratories (UL).
- D. Each motor shall have sufficient horsepower rating to operate the pump at any point on the pumps head-capacity curve without overloading the nameplate horsepower rating of the motor. Motors shall have a minimum service factor of 1.15.
- E. Motors shall include Class F insulation, rated to operate at an ambient at an ambient temperature of 40 degrees C without exceeding Class B temperature rise limits at the motor's nominal rating.
- F. Motors for variable frequency drives (VFDs) shall be specifically rated for inverter duty and shall be severe duty NEMA MG-1 design A or B, premium efficiency, with NEMA MG Class F insulation. Winding temperature rise shall be limited to Class

B rise when operating over the specified speed range. Motor insulation shall be designed to meet MG-1, Part 31 (1600 volt peak at a minimum of 0.1 microsecond rise time). Motors shall conform to IEEE 841. All internal surfaces shall be coated with epoxy paint.

- G. Inverter duty motors shall be equipped with shaft-grounding with stub staff extended from the motor shaft. Grounding unit shall be equipped with two brushes, totally enclosed and sealed against environmental contamination.
- H. Motors shall include bearings with a minimum L-10 life of 50,000 hours. Motors larger than 2 hp shall include re-lubricatable ball bearings.
- I. Motors over 25 HP shall have short commercial tests performed which include: no load current, locked rotor current, winding resistance, high potential, and vibration and bearing inspection.

## **2.8 FACTORY PERFORMANCE TESTING**

- A. Each pump shall be non-witness tested at the factory for capacity, power requirement and efficiency at minimum head, rated head, shutoff head and other points as needed for accurate performance test plotting. All tests and reports shall conform to the requirements and recommendations of the Hydraulic Institute Standards. The test results are to be certified as correct by the pump manufacturer. All test data shall be submitted To the Engineer at least 10 days prior to shipment.

## **PART 3 EXECUTION**

### **3.1 INSTALLATION**

- A. Contractor shall install the pumping system in accordance with the manufacturer's recommendations.
- B. Provide all manufacturer recommended lubricants for the pump and motor.
- C. Install the pump per ANSI/HI 1.4. Ensure that the pump flanges are properly aligned prior to installing bolts. Do not allow pipe strain to be transmitted to the pump.
- D. Adjust anchor bolts and nuts and grout to align pump.
- E. Perform field vibration measurements during normal operation. Vibration levels shall not exceed HI vibration limits.

### **3.2 START-UP SERVICES**

- A. The pump system manufacturer shall furnish the services of a qualified factory trained field service representative for a minimum 8-hour site visit to inspect the installation and instruct the Owners personnel on the operation and maintenance of the pumping system. If defects in the installation are noted, the representative

shall return for additional inspection after corrections are made, at no additional cost to Owner.

- B. Pump Operation Test. Contractor and pump manufacturer's field representative shall observe the pump operation under normal flow and operating head for a period of 2 hours and confirm that the pump is operating without excessive vibration, noise, heat generation or current draw. Measure current from each leg of the connection to confirm that all phases are balanced. Contractor shall make all corrections necessary if any excessive or unusual operations are observed.
- C. The manufacturer's representative shall furnish a written report certifying that the equipment has been installed properly; all lubricants are filled; the pump is in accurate alignment; is free from undue stress imposed by the connecting piping or anchor bolts and has been operated under full load conditions and is operating properly without vibration and excessive noise. Vibration levels shall be within HI limits.

## **END OF SECTION**

## **SECTION 43 23 57**

### **PROGRESSIVE CAVITY PUMPS**

#### **PART 1 GENERAL**

##### **1.1 WORK INCLUDED**

- A. This section includes furnishing, installing, testing, and commissioning Progressive Cavity Pumps. The pumps shall be specifically designed to pump sludge and waste solids at high solids concentration without plugging or dewatering of the solids. Pumps shall be suitable for use in municipal wastewater treatment for primary sludge and scum.

##### **1.2 RELATED WORK**

- A. Section 33 1 00 – Pipe & Fittings
- B. Section 05 05 20 – Bolts, Washers, and Anchors
- C. Section 09 90 00 - Painting and Coating
- D. Section 40 05 20 - Valves

##### **1.3 REFERENCES**

- A. Hydraulic Institute (HI)

##### **1.4 SUBMITTAL REQUIREMENTS**

- A. As specified in Section 01 33 00 – Submittals.
- B. Submit manufacturer's catalog data. Show manufacturer's model number.
- C. The submittal shall include, as a minimum the following:
  - 1. Pump manufacturer's catalog data sheet with model, materials of construction for all pump parts with specifications by recognized standard, dimensions, hydraulic analysis and pump curves with the specified operating condition(s) marked, operating speed, rated power, efficiency, NPSH required, maximum power and shutoff head. For pumps specified to be operated with variable speed drive, provide a multi speed analysis showing minimum operating speed. Provide pump and motor weight and anchoring requirements.
  - 2. Pump motor data including rpm, service factor, motor efficiency and temperature rating.
  - 3. Manufacturer's Installation Instructions.
  - 4. Operations and Maintenance Manual.

5. Submit manufacturer's sample form for reporting performance test results two weeks prior to factory pump test.
6. Submit certified pump test reports for review at least two weeks prior to shipping the units from the factory. Show pump total head, flow, brake horsepower, efficiency and required NPSH.
7. For pumps used in potable water systems, submit certification that all wetted materials are certified to ANSI/NSF Standard 61.

## 1.5 QUALITY ASSURANCE

- A. All pumping equipment furnished under this Section shall be of a design and manufacture that has been used in similar applications and it shall be demonstrated to the satisfaction of the Owner that the quality is equal to systems made by the manufacturer specifically named herein. The pump manufacturer shall have a minimum of twenty (20) years of documented experience in the design and production of progressive cavity pumps of all types, and not less than five (5) years of experience in the production of the exact equipment as specified herein. Manufacturers shall provide evidence of at least five (5) installations in which similarly sized systems have provided satisfactory performance for a minimum of five (5) years in a similar application. No consideration will be given to an individually sized pump that has not been commercially available for five (5) years. At the Engineer's request, supplier shall provide a list of installations involving equipment of similar size and application with references and contact information.
- B. To insure a consistent high standard of quality, the manufacturer of this pumping equipment shall comply with the requirements of the ISO 9001 Quality and such compliance shall be verified by an independent certification agency approved by the International Organization for Standardization. Documentation shall be submitted for approval showing compliance with this requirement, and the equipment will not be released for shipment until approved.
- C. Except as modified or supplemented herein, all pumps shall conform to the applicable requirements of ANSI-Hydraulic Institute Standards.
- D. All components of the pump, including pump, base, seal, drive, belt drive etc. shall be supplied as an integrated system. The pump manufacturer shall have complete responsibility for meeting the requirements of this specification.
- E. Pump service and spare parts shall be available in USA.

## 1.6 SERVICES OF MANUFACTURER

- A. Furnish the services of a representative of the pump manufacturer for a minimum period of 4 hours on each of two visits to assist in adjusting and mechanical testing of the equipment furnished, to supervise the initial operation, and to make any final adjustments as may be necessary to assure the Owner that the pump(s) is (are) in satisfactory operating condition. If the initial visit results in the need for additional work or if the pump system is not functional, the Contractor shall provide for a



second visit and subsequent visits until the pumps operate satisfactorily, at no additional cost to the Owner.

- B. Furnish sufficient supervision, data, and information from the manufacturer to train operators in the proper operation and maintenance of the pump(s) furnished.

## **PART 2 PRODUCTS**

### **2.1 ACCEPTABLE MANUFACTURERS**

- A. Pumps shall be manufactured by Moyno or other manufacturer approved prior to bid submittal.

### **2.2 GENERAL DESIGN REQUIREMENTS**

- A. The fluid to be pumped is primary sludge and scum from a municipal wastewater treatment plant. The solids concentration is variable and typically ranges from 0.5 to 4 percent solids.
- B. The pumps shall be of the heavy duty, positive displacement, progressing cavity type with a gear joint drive train. The pump shall be radially-mounted to allow the normally vertical suction port to be rotated to any angle perpendicular to the centerline to facilitate piping connections.
- C. The pump curve shall be continuously rising and free from dips and valleys from the design flow to the shutoff head.
- D. Pump performance shall be stable and free from damaging cavitation, vibration and noise within the operating range.
- E. The pumps will be installed at approximately elevation 200 feet AMSL.
- F. The pump and motor shall be supported on a common base.
- G. All pumps will operate intermittently.
- H. Pumps will be located indoors.

### **2.3 DESIGN CONDITIONS**

- A. The basic design is frame mounted progressive cavity, belt driven pump.

Design flow: 100 gpm

Design head : 45 psi

Suction diameter: 6-inch

Discharge diameter: 6-inch

Pump speed: 316 rpm

Pump minimum efficiency: 75%

Pump Model: Moyno 2000 Ultra-Pro® 1:2 design.

Motor: 7.5 hp, 460 v, 60 hz, 3-phase, premium efficiency, explosion proof.

## 2.4 PUMP CONSTRUCTION

- A. Pump shall be belt driven with the motor mounted above the pump. Sheaves and belts shall be properly sized for horsepower ratings, and all guards are to be supplied with the belt drive system. Pump shall be supplied with OSHA approved guards.
- B. The bearing and suction housings of the pump shall be thick-walled cast iron. All cast parts shall be free of sand holes, blow holes, and other defects. The suction housing shall incorporate two rectangular inspection ports, 180° apart, to permit access to the suction housing interior without disconnecting the piping. The bearings will be integral to the pump and of the grease lubricated, tapered roller type with diverging pressure angles for maximum shaft stability. Close-coupled pumps, which do not utilize bearings integral to the pump, will not be accepted. Bearings are to be designed for a minimum B-10 life of 100,000 hours under maximum operating conditions and will not require periodic lubrication. The bearings shall be protected from contaminants by means of a bearing cover plate bolted to the bearing housing. The bearings shall be enclosed in a separate housing, incorporating a bearing spacer and bolted bearing cover, which eliminates the need to shim the bearings. Inferior methods of positioning the bearings, i.e., snap rings, will not be accepted.
- C. Rotor and Stator. The rotor shall be of one-piece construction with integrally machined rotor head. Rotors made in long lengths and cut to size, with welded rotor heads, will not be accepted. The rotor shall be machined from alloy steel. The alloy steel shall be ASTM A331-90, grade 4150 cold finish with a yield strength greater than 55,000 psi. The rotor shall be of the single helix design with a hard chrome plate thickness of .010 inches coating for maximum abrasion resistance. The stators shall be of the double helix design and chemically bonded to the inside of a carbon steel tube. The Shore A durometer of the stator shall be 71 + 4. The stator shall be machined with grooves to accept a 720° retaining ring. The stator shall be fastened to the suction housing and discharge flange with removable clamp rings to facilitate stator removal. Stators held in place with inferior methods, such as tie rods that are prone to uneven tensioning and stator misalignment, will not be accepted. The replaceable stator gaskets shall be designed to prevent the material being pumped from contacting the stator bonding and tube. Stators manufactured with seals integrally molded to the stator elastomer, that can be damaged during handling and installation and are not replaceable, will not be accepted. Stators for the progressing cavity pumps shall be manufactured to size. Stators made in long lengths and cut to size will not be accepted. Stator tensioning or adjusting devices, which distort rotor/stator compression and seal lines will not be accepted. The distorted compression reduces rotor life. The distorted seal lines reduce capacity and pressure capabilities of the pumping elements.
- D. Drive and Connecting Rod. The drive shall consist of a connecting rod that shall be of the rigid, splined design, connecting the gear joints of the drive shaft and

eccentrically moving rotor. The connecting rod shall pass through the shaft seal area inside the hollow drive shaft quill so that no eccentric loads are imparted on the shaft seal area. The connecting rod shall be machined of alloy steel. The alloy steel shall be ASTM 331-90, grade A8620. The connecting rod shall be splined to accept a ball gear. All diameters of the connecting rod are to be concentric to within + .003" TIR. Total angularity of the connecting rod shall not exceed 1.5°. The drive shall also consist of gear joints of the grease lubricated, crowned gear type. The gear joint shall be totally enclosed and protected by a wire reinforced elastomeric seal. Mechanical components of the gear joints shall be designed to operate for 10,000 hours at the manufacturer's published maximum speeds and pressures. The gear joints shall be machined of alloy steel, ASTM 331-90, grade A8620. The ball gear shall have an internal spline machined to American Standard 30° pressure angle involute spline. Stub tooth gears must have a 30° pressure angle. Joints utilized in the progressing cavity pump must have separate components handling the thrust forces and rotational forces. In the gear joint, the ball and ring gears handle rotational forces. The thrust plates handle thrust forces. Pin joints are subjected to both rotational and thrust forces resulting in reduced wear life and will not be allowed.

Light duty universal joint designs, such as flexshafts, cardan joints, and bushed pin joints, with forces concentrated on line contact, will not be accepted. The drive shall consist of a drive shaft that shall be of a hollow shaft quill design minimizing pump length and cantilever forces on the shaft sealing areas of non-hollow (solid) drive shaft designs. The hollow drive shaft shall be of two-piece construction with a removable stub shaft and a one-piece hollow construction through the bearings and shaft seal area. The stub shaft shall permit disassembly of the universal joints without effecting the shaft sealing area. The drive shaft shall be machined from carbon steel, ASTM A519-90, grade MT1020 with a yield strength of 32,000 psi. Carbon steel shafts shall be coated with hard chrome plating with a nominal chrome plate thickness of .010 inches for maximum abrasion resistance. Progressing cavity designs that do not protect the drive shaft from abrasive wear with chrome plating will not be accepted.

- E. Stuffing Box. The stuffing box shall be equipped with a split packing gland and split Teflon® lantern ring to permit repacking of the pump without removing the bearings or drive shaft components. Fittings will be provided for water lubrication of the packing.
- F. Paint and Coating. Provide manufacturer's standard coating.:

## 2.5 MOTOR REQUIREMENTS

- A. Drive motors shall be 480 volts, 3 phase, 60 hertz, 1.15 service factor, foot and C-flange mounted, explosion proof, premium efficiency. The motor shall be sized for non-overloading conditions.

## 2.6 FACTORY PERFORMANCE TESTING

- A. Each pump shall be non-witness tested at the factory for capacity, power requirement and efficiency at minimum head, rated head, shutoff head and other points as needed for accurate performance test plotting. All tests and reports shall

conform to the requirements and recommendations of the Hydraulic Institute Standards. The test results are to be certified as correct by the pump manufacturer. All test data shall be submitted to the Engineer at least 10 days prior to shipment.

## **PART 3 EXECUTION**

### **3.1 INSTALLATION**

- A. Contractor shall install the pumping system in accordance with the manufacturer's recommendations.
- B. Provide all manufacturer recommended lubricants for the pump and motor.
- C. Install the pump per ANSI/HI 1.4. Ensure that the pump flanges are properly aligned prior to installing bolts. Do not allow pipe stain to be transmitted to the pump.
- D. Adjust anchor bolts and nuts and grout to align pump.

### **3.2 START-UP SERVICES**

- A. The pump system manufacturer shall furnish the services of a qualified factory trained field service representative for a minimum 6-hour site visit to inspect the installation and instruct the Owners personnel on the operation and maintenance of the pumping system. If defects in the installation are noted, the representative shall return for additional inspection after corrections are made, at no additional cost to Owner.
- B. Pump Operation Test. Contractor and pump manufacturer's field representative shall observe the pump operation under normal flow and operating head for a period of 2 hours and confirm that the pump is operating without excessive vibration, noise, heat generation or current draw. Measure current from each leg of the connection to confirm that all phases are balanced. Contractor shall make all corrections necessary if any excessive or unusual operations are observed.
- C. The manufacturer's representative shall furnish a written report certifying that the equipment has been installed properly; all lubricants are filled; the pump is in accurate alignment; is free from undue stress imposed by the connecting piping or anchor bolts and has been operated under full load conditions and is operating properly without vibration and excessive noise. Vibration levels shall be within HI limits.

**END OF SECTION**

## **SECTION 46 53 65 AERATED LAGOON TREATMENT SYSTEM**

### **PART 1 GENERAL**

#### **1.1 WORK INCLUDED**

The Contractor shall furnish, install, test and commission one Aerated Lagoon, treatment system equipment package, complete and operational in accordance with these Plans and Specifications. The treatment process shall be an extended aeration aerated lagoon process designed for removal of BOD<sub>5</sub> and Total Suspended Solids (TSS) from primary treated effluent. The treatment system shall include all necessary equipment and control systems to meet the performance requirements specified herein, including but not limited to aeration equipment, diffusers, suspended/floating aeration chains, and aeration chain valves.

#### **1.2 BASIS OF DESIGN**

The process shall comply with design criteria shown on the Plans and detailed in these specifications.

The plans and specifications have been prepared based on the Biolac® process equipment as manufactured by Parkson Corporation, Fort Lauderdale, FL. The Biolac aeration system was chosen to best meet the design requirements for the application. The system includes suspended aeration chains, fine bubble diffusers, manual airflow valves, and various other system appurtenances. This specification shall serve as the standard by which any acceptable alternative system submittals will be reviewed.

The system shall be designed so that it can be upgraded in the future with dissolved oxygen and ammonia monitoring for automatic control of blowers and aeration valves. The future system shall allow for alternating oxic and anoxic zones for the simultaneous removal of BOD and nitrogen in a common basin without the need for effluent recycle. In addition, the diffuser assemblies shall be designed with the capacity to increase air flow by 25 percent with the addition/replacement of diffuser(s).

If alternate equipment is proposed for substitution, the Contractor shall submit technical and reference material, as outlined below, to demonstrate the functional, quality, reliability, expandability, and durability equivalence of the alternate system

If the proposed substitution requires an arrangement differing from that shown on the plans or if the details of design and construction are different from those specified, the Contractor shall prepare and submit for review the design calculations along with preliminary drawings showing necessary structural, electrical, instrumentation, mechanical and architectural drawing revisions. The manufacturer shall prepare and submit for review, along with the required shop drawings, a specific listing of the material, design and construction differences between the proposed equipment and the specified equipment.

The decision of the Engineer with respect to approval or disapproval of any equipment proposed as an "alternate" is final.

All work associated with accommodating alternate equipment shall be at no additional cost to the Owner. The Contractor shall reimburse the Owner for all redesign costs associated with the use of alternate equipment.

The following requirements shall apply to all wastewater treatment plant process units.

1. The design criteria shall be maintained in all respects.
2. The Contractor shall provide, with the bid proposal, a list of four similar successful treatment plant installations constructed within the last 5 years and currently operating. The alternative treatment plant process shall be similar with respect to influent characteristics, flow rate, treatment efficiencies and environment.
3. All exceptions to these Plans or Specifications shall be clearly identified as such. Acceptance of a bid is contingent upon review or accepted equipment by the Owner or Owner's representative. Requests for review shall consist of drawings and specifications including dimensions, loadings, controls, performance data and all other information to enable determination of whether the proposed equipment meets the specified requirements.

Alternative treatment configurations may result in changes to pipe size, material and location, structural concrete, aeration (blower enclosure, distribution pipe, etc.), controls, power and related facilities. Requests for review shall delineate any such changes.

#### PRE-BID SUBMITTAL REQUIREMENTS FOR ALTERNATE EQUIPMENT/SYSTEMS

- a. To be considered acceptable as alternate process equipment, the manufacturer shall send the Engineer a written request 14 days prior to the bid opening which is to include such drawings, specifications, literature, performance data, and other information necessary to describe the proposed equipment as meeting the minimum requirements of the project.
- b. The pre-submittal data should include, but not be limited to, a list of at least four Domestic U.S. installations of a similar capacity and equipment of design constructed within the last five years similar to the specified aeration system that have been in operation for a minimum of two years with similar influent characteristics. The information on each plant shall include:

- (1) Name and location of facility.
- (2) Brief description of plant size including design flow, peak flow, organic loading, and effluent requirements.
- (3) Minimum of twelve months operating data including daily flows, influent and effluent quality for BOD, suspended solids, and ammonia nitrogen.
- (4) Name, address and telephone numbers of owner, plant operator, design engineer and general contractor
- (5) A complete list of exceptions to the specifications
- (6) A list of required modifications required to accommodate the proposed equipment
- (7) Technical data sheets for packaged components such as pumps, blowers, valves, instrumentation, and controls
- (8) Detailed calculations and test data shall be supplied which show that the alternate system can produce the Standard Oxygen Requirement. The mixing requirement for the basins shall be stated in brake horsepower, SCFM and percent of the power required for meeting the oxygen requirements. Submittals must be provided with certified field test results which show that the system can properly mix the basin(s) and maintain the suspended solids at a concentration of 2000 to 5000 mg/L in suspension at an energy level of 4 SCFM/1000 CF basin volume.
- (9) Submittals shall include a detailed schematic control logic drawing with typed narrative description explaining how the system process is automatically controlled.
- (10) Documentation shall also show that the aeration system can be maintained without dewatering the aeration basin. Complete headloss calculations must be provided which demonstrate a maximum of +/- 5% variation in airflow per diffuser.
- (11) A process guarantee which guarantees the treatment facility effluent quality as outlined in Paragraph A of this specification.
- (12) It is the responsibility of the manufacturer to furnish complete, specific detailed information on the substitution product in which the requirements of the contract documents are shown to be met or exceeded.

This shall consist of a point by point comparison of the contract document requirements.

- (13) It shall be the responsibility of the Contractor to pay for the cost of redesign of all affected areas of the Contract Drawings if the system that is ultimately selected by the Engineer differs from the incorporation of the alternate items into the facility. The lump sum bid price shall include all costs for the redesign of the treatment facilities to accommodate the substituted equipment. The redesign shall be performed by the Engineer.
- (14) System supplier shall state the guaranteed life of aeration equipment and guarantee the replacement parts will be available for five years.

### 1.3 DESIGN CONDITIONS

#### A. Table 1 Influent Conditions

Influent Parameter	Value	Unit	Value	Unit
Average Daily Flow (ADF)	1.6	MGD		
Max. Month Flow (MMF)	1.75*	MGD		
Peak Day Flow	2.0	MGD		
BOD <sub>5</sub>	250*	mg/l at MMF	3,650	lbs/d
TSS	120*	mg/l at MMF	1,750	lbs/d
Site Elevation	206	feet		
Max wastewater temperature	30	°C		
Min wastewater temperature	10	°C		
*Basis for aeration system design				

#### B. Table 1. Effluent Requirements

Effluent Parameter	Monthly Ave. Value	Unit
BOD	30*	mg/l
TSS	30*	mg/l
*Minimum 85% removal of influent, whichever is lower.		

- C. Process Design. The process design shall be a multi-cell, high performance, aerated lagoon system without return activated sludge. The system shall be specifically designed to minimize the growth of algae. Cell 1 and 2 shall be complete mix reactors, divided by a curtain baffle, with sufficient mixing and aeration from diffused air flow to maintain solids in suspension. Cells 3 and 4, divided by a curtain baffle, shall be partial mix with air flow sufficient to maintain 1 mg/L dissolved oxygen. Cells 3 and 4 will retain settled solids for stabilization and digestion.

Design parameters for the process shall be per the following table:



Table 1 Design Parameters

Number of treatment basins	4 cells
Basin volume, Cell 1 (MG)	3.12
Cell 2	1.15
Cell 3	2.27
Cell 4	2.27
Basin SWD (ft)	12'/14'
Design HRT (days)	5.01
Actual Oxygen Required, AOR (lbs/d)	8,121
Alpha	0.7
Beta	0.95
Standard Oxygen Required, SOR (lbs/d)	15,489

#### 1.4 RELATED WORK

- A. Section 43 11 33 Blowers
- B. Section 40 05 20 – Valves
- C. Section 33 01 00 Pipe & Fittings

#### 1.5 SUBMITTAL REQUIREMENTS

- A. As specified in Section 01 33 00 – Submittals.

##### 1. Shop Drawings and Product Data

- a) Submit detailed dimensional shop drawings and product data.
- b) Design calculations, and a complete description of the proposed operating strategy. Provide aeration system head loss calculations and standard oxygen requirements.
- c) Drawings, diagrams, and catalog cuts, for all mechanical and electrical equipment that needs to be integrated with other process, structural, or ancillary equipment or associated modifications required to comply with the full intent of the job specifications.

##### 2. Equipment

- a) Complete descriptions of the equipment.
- b) Certification of compliance with the materials of construction specified.
- c) Maintenance schedule, method of maintenance performance, and life expectancy of all equipment when applied as intended in the specification.
- d) All recommended spare parts.

### 3. Maintenance Data and Operating Instructions

- a) Submit three (3) copies of an Operation and Maintenance Manual for equipment furnished, including a detailed description of the function of each principal component, procedures for operation, instruction for overhaul and maintenance. Include lubrication schedule, safety precautions, test procedures, electrical schematics, and parts list.
4. Submit process design calculations showing removal of a minimum of 85% BOD and TSS. Include assumption on values used for biological kinetic constants assumed reaction rate coefficients, alpha and beta factor and temperature coefficients.

## 1.6 QUALITY ASSURANCE

Supplier shall have been a minimum of ten years' experience designing similar treatment processes and aeration equipment using suspended/floating aeration chains with submerged diffusers. At the Engineer's request, supplier shall provide a list of installations involving equipment of similar size and application. All equipment furnished under this specification shall be new and unused and shall be the standard product of the supplier.

## 1.7 PATENTS AND LICENSES

The Contractor shall be responsible for payment of all patents, licenses or royalty fees that may be required for the equipment and intellectual property provided. The Owner shall be granted an unrestricted, non-expiring license for use of the equipment, controls, software, and systems provided. The Contractor shall save harmless the Owner and the Engineer from all damages, judgments, claims, and expenses arising from disputes related to license fees, or of equipment or process feature or arrangement of any of the component parts of the installation. The price bid shall be deemed to include payment of all such patent fees, license or other costs pertaining thereto.

## PART 2 PRODUCTS

### 2.1 GENERAL

- A. The aeration system shall include all the aeration system components specified below. In general, it shall consist of suspended/floating flexible aeration chains attached to anchors on two sides of the aerated lagoons. The aeration chains shall be attached to an air header pipe and will be controlled by a manual butterfly valve. Diffuser assemblies shall be suspended from the aeration chains and shall contain multiple fine bubble diffusers submerged above the lagoon bottom.
- B. Aeration chains systems shall be capable of moving horizontally not less than 10 feet perpendicular to the chain in both directions and shall be self-propelled.

### 2.2 AERATION SYSTEM

- A. Moving Aeration Chain System

1. The aeration system shall be designed so that there are no anchors or points of attachment to the basin bottom. The aeration system must be completely suspended above the basin bottom. The aeration system must be easily accessible for service and maintenance without basin dewatering or a complete aeration system shutdown.
2. The aeration chain system shall be self-propelled and move back and forth systematically in the wastewater to provide high efficiency mixing of basin contents. The aeration chains shall move approximately 10 feet in each direction from their starting position. This capability is critical to allow turndown flexibility in the operation of the aeration system while maintaining a completely mixed system. The system shall be designed to provide complete mix with a minimum air flow of 4 scfm/1000 cu. ft. of lagoon volume.
3. Each aeration chain shall be fed air from one side and connect to the air main through individual branches with butterfly valves. The butterfly valve shall provide individual control or isolation of the airflow to each aeration chain. An adjustable tension line consisting of stainless steel cable shall be provided on each end of each aeration chain and connect near the last aeration assembly at each end and also to a hook anchored on each side of the basin as shown in the drawings.

#### B. Moving Aeration Header Assembly

1. The moving aeration chain shall be constructed of a single continuous polyethylene header. All header piping shall be manufactured by continuous extrusion process of high density, high molecular weight resin defined by ASTM D-3350. Each header shall be field assembled using butt fusion welds.
2. Aeration chain piping shall be SDR 21 6-inch diameter with a minimum wall thickness of 0.25 inches. End caps and adaptors for hose feed end shall be SDR 11 minimum.

#### C. Air Feed Hose & Connections

1. The connecting hose between each moving aeration chain and the butterfly valve shall be EPDM rubber and suitable for high temperature service. The hose shall provide adequate flexibility for the required chain movement and be the same diameter as the moving header. It shall be attached to the butterfly valve by a stainless steel adapter and to the moving header by a machined polyethylene adapter. Designs that do not use a flexible hose connection and/or use a rigid pipe connection do not allow for proper aeration chain movement and are unacceptable.
2. The stainless steel adapter shall incorporate a 3/4-inch stainless steel ball valve outlet. Galvanized metal or non-metallic adapters to the butterfly valve shall not be accepted.

3. The polyethylene adapter shall have a minimum wall thickness equal to SDR 11. Metallic adapters to the polyethylene header shall not be accepted.
4. The connecting hose shall be held in place by not less than two band-type clamps at each end. Clamps shall be constant torque-type for the connection to the stainless steel adapter and standard band clamps at the polyethylene header. All clamp components shall be 304 S.S., minimum. Working clamp rating shall not be less than 40-inch pounds. Rigid pipe connections shall not be accepted.

#### D. Aeration Header Butterfly Valve

A butterfly valve shall be provided at the connection to the main air header for each aeration chain. The valve shall be manually operated, capable of bi-directional, drip tight service to 100 psi. Valve shall be cast iron lug or wafer style body, 304SS disc, 416SS stem and molded in place EPDM seat, rated at 250 PSIG. Valve shall have bronze upper and lower bearings to reduce torque and corrosion resistant bushing in upper journal to adsorb actuator side loads

#### E. Suspended Air Diffuser

1. The suspended air diffuser assembly shall consist of a fully functioning unit capable of housing five (5) diffuser tubes total. A maximum of 4 diffuser tubes per assembly shall be used to meet design SOR conditions, so there is the ability to add 25% additional diffuser area to each unit for future expansion. The design of the unit must allow for the addition and/or removal of diffuser tubes by the Owner without disturbing its stability or air distribution characteristics. Any unused diffuser connections shall be sealed with airtight, removable plugs. The plugs shall provide easy removal after extended use for the addition of diffuser tubes for future capacity increases. The installed diffusers shall be supplied air at each end by an air supply manifold and secured by means of sealed connection held by a threaded flow-thru bolt and nut.
2. All diffuser tubes shall be constructed with a complete, internal flow-through design to minimize buoyancy and reduce counterweight/ballast requirements. A maximum ballast weight of 30 pounds shall be allowed to insure ease of maintenance over the life of the unit. Ballast more than this weight will only be approved if a diffuser lifting device is included in the design. Ballasts must be designed to allow locating the diffuser centerline within 12" of the basin bottom while maintaining not less than 8" clearance for variations in the basin bottom and liner. Rubberized or coated carbon steel ballast assemblies may experience coating failure and are not acceptable. Concrete ballasts are not acceptable. Ballast assemblies not contained within rigid, corrosion-proof enclosures must be supplied using stainless steel materials equal to 304 or lower carbon content grades.

#### F. Diffuser Frame

The diffuser frame shall be formed from a polypropylene compound of sufficient strength to prevent warping or deflection. PVC and HPDE materials are unacceptable unless strengthened by a minimum 15% glass-fiber content. The end connections of each frame shall be sealed using mechanical welding procedures providing a connection stronger than the unwelded tube. Simple solvent welding shall not be acceptable.

G. Diffuser Sheath

The diffuser sheath shall be composed of a urethane soft thermo plastic material. This soft urethane sheath shall be held in place by stainless steel clamps. Clamps shall be reusable. The sheath material shall not require any plasticizers or other volatile additives. No softeners shall be allowed. Sheaths which require softening additives shall not be approved. Rigid, micro porous, ceramic, silicon or rubber-based (EPDM) diffuser membrane materials are not acceptable. To maximize membrane life expectancy, the diffuser design airflow rate shall not exceed 1.6 /active ft. of diffuser length at the design loading specified.

H. Connection of Diffuser Assembly Air Supply to Moving Aeration Header

The diffuser assembly shall be connected to the moving aeration chain by two EPDM hoses. Suspended diffuser systems that use one connecting hose per diffuser assembly are not stable and are not acceptable. The connection of each hose to the aeration header shall be formed by an insert type nozzle fitting with 1" diameter ID. Fittings shall be injection molded from polyamide resin with 33% glass filled content for strength and durability. Fittings that are not reinforcement with glass fiber will not be approved. Fittings shall have an internal radius to fit the aeration chain pipe ID and be made airtight using BUNA-N gaskets. Fittings shall be factory molded and field installed

Diffuser assemblies which are not set at the normal 1 ft. above the bottom of the lagoon shall be provided with stainless steel ball valves so that air flow can be individually adjusted as required to equalize air flow delivery.

## 2.3 MAINTENANCE PLATFORM

- A. Contractor shall provide a floating maintenance platform specifically designed to facilitate maintenance of aeration chains within the basin. The floating platform shall be provided with a battery powered trolling motor.
- B. The platform shall be specifically designed for maintaining a floating chain type aeration system. The platform shall include a twin pontoon flotation platform with an A-frame structure and a battery powered hoist assembly to mechanically raise the chain for in-basin maintenance of the aeration chains and air diffuser assemblies. The platform shall be constructed entirely of aluminum. The platform operating deck shall have non-skid working surface.
- C. Platform shall be designed for two people with a combined weight of 500 pounds. The platform shall be stable for all occupants, tools, and aeration equipment combinations and locations on the structure both during transport on the basin water surface and during aeration chain maintenance.

- D. Platform shall have a handrail and tie-off locations for the operating staff. Platform shall be supplied with floatation safety equipment. Platform shall be designed with lifting eyes so that the platform can be moved with a crane. The platform shall be supplied with a battery operated winch for lifting a section of the aeration chain out of the water to provide maintenance staff access to the diffuser assemblies.
- E. The approximate overall dimensions of the maintenance platform shall be 12' long x 8' wide x 8' high.
- F. OPTIONAL – A galvanized steel or aluminum trailer for moving the platform over the road shall be provided. The trailer shall meet all applicable California Vehicle Code requirements for transport on public roads,

## **PART 3 EXECUTION**

### **3.1 SITE STORAGE AND HANDLING OF EQUIPMENT**

The Contractor shall store the supplied equipment in accordance with the manufacturer's recommendations and instructions. The Contractor shall be responsible for work, equipment, and materials until inspected, tested, and finally accepted.

### **3.2 INSTALLATION**

The equipment shall be installed properly to provide a complete working system. Installation shall follow the supplier's recommendations. All equipment, components, piping, and appurtenances shall be installed true to alignment and rigidly supported.

### **3.3 EQUIPMENT TESTING**

Field tests of diffusers and controls shall be completed after installation of the complete aeration system and controls. The equipment shall be field tested as follows, using wastewater effluent:

#### **A. Low Pressure Air Test of Air Header**

The purpose of this test is to determine if the air header pipeline leaks under pressure. The Contractor shall conduct the test prior to complete backfilling of the trenches as follows:

- 1) Verify that all the pipe fittings, tees, elbows, etc. have been securely installed.
- 2) Verify that an adequate amount of back fill has been tamped under and around the pipe making sure it is securely in place.
- 3) If required, have all concrete thrust blocks in place to immobilize the air header under pressure.
- 4) Isolate the air header pipeline by closing valves.
- 5) Pressurize the air main as shown below and record the time.
  - a) Test Pressure: 20 psi
  - b) Test Duration: 60 minutes

- c) Test Requirement: Test pressure must be held for a minimum of 15 minutes. Test pressure must not fall more than 5% during a one-hour time span.

#### B. System Functional Testing and Air Flow Adjustment

Operate the aeration system 24 hours continuously at 100 percent blower capacity at full submergence. Monitor hourly for air leaks and proper diffuser movement. Repeat the test with blowers operating at 75 percent capacity. Adjust air flow at each manual valve so that air distribution in each diffuser assembly is uniform throughout the basins.

### 3.4 *SYSTEM START-UP AND CERTIFICATION*

A qualified representative of the aeration equipment manufacturer shall perform inspection and check out of the entire PROCESS EQUIPMENT system following installation. Sufficient tests shall be conducted to demonstrate that all system components are fully operational, that control and instrumentation components are fully operational and properly adjusted and that the entire system is ready for continuous safe operation. The purpose of the checkout shall be to ensure that each individual system component has been correctly installed, shall operate fully in the manner intended, and is ready to perform its function as part of an integrated system when placed in continuous operation. Individual valves on air headers and diffuser assemblies shall be adjusted to distribute air uniformly throughout the systems in accordance with mixing and oxygen demands. System supplier shall supply personnel to be present at final equipment installation/inspection and provide start-up assistance for a maximum of 2 man-days split in 2 trips.

### 3.5 *SYSTEM TRAINING*

When all equipment and control tests have been satisfactorily performed and when wastewater is available and can be suitably handled through the biological treatment system, and when so authorized by the ENGINEER, the treatment system shall be started. The manufacturer's representative shall train the OWNER's operating personnel and satisfactorily demonstrate that the equipment is suitable for continuous on-line service.

System supplier shall provide a follow-up process training visit 90 days after start-up for 1/2 day. If there are difficulties in the operation of the equipment due to the supplier's design or fabrication, additional service shall be provided at no cost to the Owner.

## **END OF SECTION**

(Appendix A)



## REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

### ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

### I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

### II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

**1. Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

**2. EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

**3. Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

**4. Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

**5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

**6. Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

**7. Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

**8. Reasonable Accommodation for Applicants / Employees with Disabilities:** The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

**9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

#### **10. Assurance Required by 49 CFR 26.13(b):**

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

**11. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

### III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

### IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

#### 1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

## **2. Withholding**

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

## **3. Payrolls and basic records**

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### **4. Apprentices and trainees**

##### **a. Apprentices (programs of the USDOL).**

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

##### **b. Trainees (programs of the USDOL).**

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

**6. Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

**7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

**9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

**10. Certification of eligibility.**

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

**V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

**1. Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

**2. Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

**3. Withholding for unpaid wages and liquidated damages.** The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

**4. Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

## VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

## VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

## VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:



"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

## **IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

## **X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

### **1. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

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## **2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:**

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

## **2. Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

\* \* \* \* \*

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:**

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

\* \* \* \* \*

**XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal 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.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS  
PREFERENCE FOR APPALACHIAN DEVELOPMENT  
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS  
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.