General Info

Alt Total: $1,358,454.06

Total:

$3,481,231.10

Number

24-24-PR

Deadline

04/03/2025 02:00 PM PDT

Vendor

JT2 Inc dba Todd Companies

Submitted

04/03/2025 01:35 PM PDT

Signed by

JIM TODD **Account Holder**
Lauren Todd

Opened

04/03/2025 02:27 PM PDT **By**
jwongsing@fresnocountyca.gov

Description

Choinumni Park Improvements

The work to be done consists, in general, of improvements to Choinumni Park including furnishing and installing picnic/barbecue areas, prefabricated shelters, playground and play structures, horseshoe pits, and concrete cornhole boards, miscellaneous signage and striping, and miscellaneous electrical and plumbing improvements throughout the park. The work will also include two new trails, application of chip seals on existing roads and camp stalls, and replacement of the existing campsite fire pits and picnic tables. This project contains additive items including construction of restrooms and septic system, informational kiosks along the trails, installation of solar powered lights, application of additional chip seal to the remaining roads throughout the park and the construction of a basketball court and volleyball courts.

State of California Department of Parks and Recreation Project Number: RG-10-001

Allows zero unit prices and labor

Yes

Allows negative unit prices and labor

Yes

Attachment List

Project Website
RFC form, bid opening details, any Supplemental Information including RFC responses, prebid conference information, etc.

Specifications (25.1 MB)
Specifications (25.1 MB)

Plans (42 MB)
Plans (42 MB)

Instructions for Bidders
Link to Instructions for Bidders in the Specifications (25.1 MB)

Addendum 1
Addendum 1 (423.8 KB)

Proposal to the County of Fresno - Proposal 1

Proposal to the County of Fresno

hereinafter called the Owner

CHOINUMNI PARK IMPROVEMENTS

26501 PINE FLAT ROAD SANGER, CA 93657

STATE OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION

PROJECT NUMBER: RG-10-001

The work embraced herein shall be done in accordance with the 2023 Standard Specifications and with the 2023 Standard Plans, of the State of California, Department of Transportation insofar as the same may apply and in accordance with these special provisions.

Except to the extent that they may conflict with these special provisions, revised Standard Specifications apply to the extent included in the section entitled “Project Details” of the book entitled “Specifications."

The work to be done is shown on a set of Plans, Department File No. 11329, entitled: “Choinumni Park Improvements.”

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 they have carefully examined the location of the proposed work, the annexed proposed form of contract, and the plans therein referred to; and they propose and agree if this proposal is accepted, that they 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 they will take in full payment therefor the following unit prices, to-wit:

Bid Item List - Base Bid - General - Proposal 2

$337,455.20

Item No.	Quantity	Unit	Item Description	Item Price	Extension
1	1	LS	Mobilization & Demobilization	$98,644.00	$98,644.00
2	1	LS	Job Site Management	$91,952.00	$91,952.00
3	1	LS	Implement Approved Storm Water Pollution Prevention Plan (SWPPP)	$46,799.20	$46,799.20
4	1,500	$	State Water Resources Control Board Notice of Intent Filing Fee	$1.00	$1,500.00
5	1	LS	Demolition, Clearing & Grubbing	$98,560.00	$98,560.00
					Total: $337,455.20

Bid Item List - Base Bid - Site Preparation and Grading - Proposal 2

$267,360.80

Item No.	Quantity	Unit	Item Description	Item Price	Extension
6	1	LS	Construction Staking	$26,000.80	$26,000.80
7	1	LS	Earthwork (Rough & Fine Grading)	$241,360.00	$241,360.00
					Total: $267,360.80

Bid Item List - Base Bid - Bases & Sidewalk at Various Locations - Proposal 2

$264,264.10

Item No.	Quantity	Unit	Item Description	Item Price	Extension
8	143	CY	Construct 6" Thick Class II Aggregate Base - Final Pay Item	$129.23	$18,479.89
9	23	CY	Construct 4" Thick Class II Aggregate Base for Playground Embankment Mound	$204.52	$4,703.96
10	5,190	SF	Construct 4" Thick Concrete	$10.34	$53,664.60
11	13,955	SF	Construct 6" Thick Concrete Pads and Sidewalk	$13.43	$187,415.65
					Total: $264,264.10

Bid Item List - Base Bid - Parking Lot & ADA Site Concrete Improvements - Proposal 2

$115,438.34

Item No.	Quantity	Unit	Item Description	Item Price	Extension
12	6,442	SF	Construct 6" Thick Reinforced Concrete Pavement	$15.41	$99,271.22
13	26	EA	Install 5' Long x 3' Wide Detectable Warning Surface Panels Complete and in Place	$562.84	$14,633.84
14	7	EA	Install 72" Precast Concrete Wheel Stops	$219.04	$1,533.28
					Total: $115,438.34

Bid Item List - Base Bid - Landscaping & Decorative Concrete - Proposal 2

$248,552.80

Item No.	Quantity	Unit	Item Description	Item Price	Extension
15	1	LS	Perform All Landscape Construction Work	$194,363.68	$194,363.68
16	752	SF	Construct 6" Thick Reinforced Decorative Concrete Crosswalks	$72.06	$54,189.12
					Total: $248,552.80

Bid Item List - Base Bid - Hiking Trail - Proposal 2

$24,786.72

Item No.	Quantity	Unit	Item Description	Item Price	Extension
17	1	LS	Construct Hiking Trail and Place River Rock	$24,786.72	$24,786.72
					Total: $24,786.72

Bid Item List - Base Bid - Site Furnishings - Proposal 2

$211,956.99

Item No.	Quantity	Unit	Item Description	Item Price	Extension
18	90	EA	Install 92" Smooth Top Picnic Table Standard Legs (Model# 100S)	$1,487.14	$133,842.60
19	1	EA	Install 96" Service Table Wide Leg (Model# 102W)	$2,630.88	$2,630.88
20	2	EA	Install Group BBQ with Adjustable Grill (Model# 3001AG)	$6,774.88	$13,549.76
21	4	EA	Install ADA 30" X 17 3/8" High, Non-Adjustable, Single Flange, Single Wall, Painted, Fire Ring, 23" High Draft Holes, with (2) Staples (Model# 11302-SP23)	$1,151.64	$4,606.56
22	1	EA	Install Group Fire Pit with Steel Liner(4' diameter) (Model# 304, 304SL)	$4,029.76	$4,029.76
23	5	EA	Install Corn Hole Game set (bean toss)-2 Pieces (Model# 1510)	$2,037.95	$10,189.75
24	8	EA	Install 72" Contour Bench (Model# 407)	$1,679.44	$13,435.52
25	4	EA	Install 14" x 83.5" Bench with 203" radius curve (Model# 404R203)	$1,721.44	$6,885.76
					Total: $211,956.99

Item No.	Quantity	Unit	Item Description	Item Price	Extension
26	1	LS	Relocate Existing Fire Rings As Shown on Plans Complete and In Place	$22,786.40	$22,786.40
					Total: $211,956.99

Bid Item List - Base Bid - Pavilion Structures - Proposal 2

$217,374.64

Item No.	Quantity	Unit	Item Description	Item Price	Extension
27	2	EA	Construct 30' x 40' x 8.5' Rectangular Gable Shelter Complete and in Place	$84,362.32	$168,724.64
28	5,000	SF	Construct Pavilion Concrete Pad	$9.73	$48,650.00
					Total: $217,374.64

Bid Item List - Base Bid - Multi-Age Playground Sites - Proposal 2

$197,795.00

Item No.	Quantity	Unit	Item Description	Item Price	Extension
29	1	EA	Install Play Stack (Model# 4500-008) Complete and In Place	$51,320.64	$51,320.64
30	1	LS	Install 7ft Embankment Slide (Model# C-1650-71-EMB) and Turf Complete and In Place	$82,940.48	$82,940.48
31	4	EA	Install Log Steppers (Model# 1501-3) Complete and In Place	$1,821.68	$7,286.72
32	1	EA	Install Age 2-5 Log Scramble (Model# 4500-304) Complete and In Place	$11,284.00	$11,284.00
33	1	EA	Install Age 5-12 Log Scramble (Model# 4500-305) Complete and In Place	$17,633.28	$17,633.28
34	346	LF	Construct 6" Wide Playground Concrete Key Complete and In Place	$44.52	$15,403.92
35	2,900	SF	Construct 12" Thick Playground Play Area Wood Fiber Surfacing Complete and In Place	$2.58	$7,482.00
36	58	LF	Construct 6" Concrete Retaining Curb	$76.62	$4,443.96
					Total: $197,795.00

Bid Item List - Base Bid - Site Electrical - Proposal 2

$118,720.00

Item No.	Quantity	Unit	Item Description	Item Price	Extension
37	1	LS	Construct All Park Site electrical conduits, wiring, fixture, panels, and apparatuses complete and In place	$118,720.00	$118,720.00
					Total: $118,720.00

Bid Item List - Base Bid - Striping, Signage, and Markings - Proposal 2

$16,872.80

Item No.	Quantity	Unit	Item Description	Item Price	Extension
38	1	LS	Signage, Striping and Markings	$16,872.80	$16,872.80
					Total: $16,872.80

Bid Item List - Base Bid - Hose Bibs - Proposal 2

$30,240.00

Item No.	Quantity	Unit	Item Description	Item Price	Extension
39	1	LS	Relocate and Install Self-Closing Water Hose Bibs Complete and In Place	$30,240.00	$30,240.00
					Total: $30,240.00

Bid Item List - Base Bid - Asphalt Treatment - Proposal 2

$71,959.65

Item No.	Quantity	Unit	Item Description	Item Price	Extension
40	5,050	SY	Construct Polymer Modified Emulsion (PME) Chip Seal	$10.59	$53,479.50
41	39	TON	Construct 'Type A' Asphalt Concrete Pavement Sections and Patches	$473.85	$18,480.15
					Total: $71,959.65

Bid Item List - Additive 1 - Trail Kiosk - Proposal 2

$259,394.22

Item No.	Quantity	Unit	Item Description	Item Price	Extension
Alternate: Owner-agency may award independently from entire bid.					
42	6	EA	Construct Two-Post Timber Kiosk	$43,232.37	$259,394.22
				Alternate Total:	**$259,394.22**
				Total:	**$259,394.22**

Bid Item List - Additive 2 - Park Lighting - Proposal 2

$194,535.12

Item No.	Quantity	Unit	Item Description	Item Price	Extension
Alternate: Owner-agency may award independently from entire bid.					
43	36	EA	Install Solar-Powered Lighted Bollards (PLB Series)	$4,610.42	$165,975.12
44	12	EA	Install RAB Sconce Lights for Pavilions	$2,380.00	$28,560.00
				Alternate Total: $194,535.12	
				Total: $194,535.12	

Bid Item List - Additive 3 - Sand Volleyball Courts - Proposal 2

$127,738.24

Item No.	Quantity	Unit	Item Description	Item Price	Extension
Alternate: Owner-agency may award independently from entire bid.					
45	1	LS	Construct Sand Volleyball Courts Complete and In Place	$127,738.24	$127,738.24
				Alternate Total:	**$127,738.24**
				Total:	**$127,738.24**

Bid Item List - Additive 4 - Basketball Court and Equipment - Proposal 2

$73,678.08

Item No.	Quantity	Unit	Item Description	Item Price	Extension
Alternate: Owner-agency may award independently from entire bid.					
46	6,048	SF	Construct 6" Thick Reinforced Basketball Court Concrete	$9.13	$55,218.24
47	2	EA	Install Fixed Height Basketball Hoop	$9,229.92	$18,459.84
				Alternate Total: $73,678.08	
				Total: $73,678.08	

Bid Item List - Additive 5 - Asphalt Treatment for Rest of Existing HMA Pavement - Proposal 2

$123,234.00

Item No.	Quantity	Unit	Item Description	Item Price	Extension
Alternate: Owner-agency may award independently from entire bid.					
48	22,325	SY	Construct Polymer Modified Emulsion (PME) Chip Seal	$5.52	$123,234.00
				Alternate Total:	**$123,234.00**
				Total:	**$123,234.00**

Bid Item List - Additive 6 - Restroom & Septic Sewage System - Proposal 2

$579,874.40

Item No.	Quantity	Unit	Item Description	Item Price	Extension
Alternate: Owner-agency may award independently from entire bid.					
49	1	LS	Construct Prefabricated Public Restroom Building Model# S-301 (Santiago) Complete and In Place	$344,674.40	$344,674.40
50	1	LS	Construct Septic Sewage System Complete and In Place	$235,200.00	$235,200.00
				Alternate Total:	**$579,874.40**
				Total:	**$579,874.40**

Evaluation of Bid Item List - Proposal 3

Abbreviations used in the bid proposal sheet are identified in Section 1-1.06, “Abbreviations,” of these special provisions.

Bids are required for the entire work. Bids will be compared on the basis indicated in the Notice to Bidders. The bidder shall set forth for each unit basis item of work a unit price and a total for the item, and for each lump sum item a total for the item, all in clearly legible figures in the respective spaces provided for that purpose. In the case of unit basis items, the amount set forth under the "Item Total" column shall be the product of the unit price bid and the estimated quantity for the item.

In case of discrepancy between the unit price and the total set forth for a unit basis item, the unit price shall prevail, except as provided in (a) or (b), as follows:

(a) If the amount set forth as a unit price is unreadable or otherwise unclear, or is omitted, or is the same as the amount as the entry in the item total column, then the amount set forth in the item total column for the item shall prevail and shall be divided by the estimated quantity for the item and the price thus obtained shall be the unit price;

(b) (Decimal Errors) If the product of the entered unit price and the estimated quantity is exactly off by a factor of ten, one hundred, etc., or one-tenth, or one-hundredth, etc. from the entered total, the discrepancy will be resolved by using the entered unit price or item total, whichever most closely approximates percentage-wise the unit price or item total in the Owner's Final Estimate of cost.

If both the unit price and the item total are unreadable or otherwise unclear, or are omitted, the bid may be deemed irregular. Likewise, if the item total for a lump sum item is unreadable or otherwise unclear, or is omitted, the bid may be deemed irregular unless the project being bid has only a single item and a clear, readable total bid is provided.

Symbols such as commas and dollar signs will be ignored and have no mathematical significance in establishing any unit price or item total or lump sums. Written unit prices, item totals and lump sums will be interpreted according to the number of digits and, if applicable, decimal placement. Cents symbols also have no significance in establishing any unit price or item total since all figures are assumed to be expressed in dollars and/or decimal fractions of a dollar. Bids on lump sum items shall be item totals only; if any unit price for a lump sum item is included in a bid and it differs from the item total, the items total shall prevail.

The foregoing provisions for the resolution of specific irregularities cannot be so comprehensive as to cover every omission, inconsistency, error or other irregularity which may occur in a bid. Any situation not specifically provided for will be determined in the discretion of the Owner, and that discretion will be exercised in the manner deemed by the Owner to best protect the public interest in the prompt and economical completion of the work. The decision of the Owner respecting the amount of a bid, or the existence or treatment of an irregularity in a bid, shall be final.

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 eight (8) days not including Saturdays, 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.

Bid Security - Proposal 4

Bond Percentage

10.00%

Guarantee Method *

Cash, Cashier's Check,
Certified Check, Paper Bid
Bond, Scan of Paper Bid
Bond

Cash, Cashier's Check, Certified Check, Paper Bid Bond, Scan of Paper Bid Bond

Confirmation *

I have provided an Scan of a Paper Bid Bond for 10.00% of the bid total amount attached below.

You must either attach an electronic bid bond here or provide an original bid bond (or other form of bid security authorized by Public Contract Code Section 20129(a)) to the office location according to the instructions in the Notice to Bidders ***prior to*** the bid opening.

Addendum Acknowledgement - Proposal 4

Bidders must acknowledge all addenda. The Bidder acknowledges receipt of the following **ADDENDA:**

(Enter the number the Designer has assigned to each of the addenda that the Bidder is acknowledging)

Type N/A if no addenda were issued. Click "+" to add additional fields.

Addendum No. *

1

Dated *

3/27/25

Bidder Signature - Proposal 4

Business Name *

JT2 Inc dba Todd Companies

Note: If bidder or other interested person is a corporation, state legal name of corporation. If bidder is a co-partnership, state true *name of firm.*

Type of Business *

Corporation - list Officers

Business Owners and Officers Names *

Jim Todd - President
Therese Todd - Secretary

Note: If bidder or other interested person is:

- *a corporation, list names of the president, secretary, treasurer and manager thereof*
- *a partnership, list names of all individual co-partners composing firm.*
- *an individual, state first and last name in full.*

Names of Owners and Key Employees *

Jim Todd - President
Therese Todd - Secretary

Note: List majority owners of your firm. If multiple owners, list all. Also include anyone, including key employees, who are actively promoting the contract. (SB1439)

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

Class *

A,B,C21,C31,C36,D6

Contractor License No. *	**Expires ***
788798	5/31/26

DIR Registration Number *

1000002649

Business Address *

1701 N CLANCY CT VISALIA CA

Zip Code *

93291

Mailing Address *

PO BOX 6820 VISALIA CA

Zip Code *

93290

Business Phone *

(559) 651-5820

Fax Number

(559) 651-5830

E-mail Address *

assistant@jt2inc.com

Signature of Bidder *

JIM TODD

NOTE: If bidder is a corporation, the legal name of the corporation shall be set forth above together with the 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, bidder signature shall be placed above. If signature is by an agent, other than an officer of a corporation or a 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.

Non-Collusion Declaration - Proposal 5

State of California Department of Parks and Recreation Project Number: RG-10-001

To the County of Fresno:

NON-COLLUSION DECLARATION

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID*

The undersigned declares:

I am the (Choose one of the following options): *

Owner

If Corporate Officer please list Title:

PRESIDENT

of (Business Name): *

JT2 INC DBA TODD COMPANIES

the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or refrain from bidding. 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. All statements contained in the bid are true. 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, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, and has not paid, and will not pay, any person or entity for that purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

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: *

4/03/25

at City, State: *

VISALIA, CA

Signature: *

JIM TODD

(See Title 23 United States Code Section 112; Calif Public Contract Code Section 7106)

*NOTE: Completing, signing, and returning the Non-Collusion Declaration is a required part of the Proposal. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Public Contract Code - Proposal 6-7

Public Contract Code Section 10285.1 Statement - Proposal 6

In conformance with Public Contract Code Section 10285.1 (Chapter 376, Stats. 1985), the bidder hereby declares under penalty of perjury under the laws of the State of California that the bidder

Choose an option: *

Has not been convicted

within the preceding three years of any offenses referred to in that section, including any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of any state or Federal antitrust law in connection with the bidding upon, award of, or performance of, any public works contract, as defined in Public Contract Code Section 1101, with any public entity, as defined in Public Contract Code Section 1100, including the Regents of the University of California or the Trustees of the California State University. The term "bidder" is understood to include any partner, member, officer, director, responsible managing officer, or responsible managing employee thereof, as referred to in Section 10285.1.

The above Statement is part of the Bid. Signing this Bid on the signature portion thereof shall also constitute signature of this Statement. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Public Contract Code Section 10162 Questionnaire - Proposal 7

In conformance 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 a 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?

Choose an option: *

No

If the answer is No, please type N/A. If the answer is Yes, explain the circumstances in the following space. *

N/A

Public Contract Code Section 10232 Statement - Proposal 7

In conformance with Public Contract Code Section 10232, the Contractor hereby states under penalty of perjury, that no more than

one final unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two-years period because of the Contractor's failure to comply with an order of the National Labor Relations Board.

Note: The above Statement and Questionnaire are part of the Bid. Signing this Bid on the signature portion thereof shall also constitute signature of this Statement and Questionnaire. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Subcontractors - Proposal 8(a)

The following named subcontractor(s) will perform with labor, or otherwise render services to the general contractor in or about the construction of the work or improvement in an amount in excess of one-half of one percent of the total bid presented herewith. Each listed subcontractor's name, location of business and description of work, and both their contractor's license number and public works contractor registration number, issued pursuant to Section 1725.5 of the Labor Code, are REQUIRED, by Section 4104 of the California Public Contract Code, to be submitted prior to bid opening. (The "location of business" must specify the city in which the subcontractor's business is located, and the state if other than California.) All other requested information shall be submitted, either with the bid or within 24 hours after bid opening.

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

FAILURE TO LIST SUBCONTRACTORS AS DIRECTED MAY RENDER THE BID NON-RESPONSIVE, OR MAY RESULT IN ASSESSMENT OF A PENALTY AGAINST THE BIDDER IN ACCORDANCE WITH SECTION 4110 OF THE CALIFORNIA PUBLIC CONTRACT CODE.

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields.

Subcontractor: *

SynLawn

Business Address *

247 N Minnewawa Ave Clovis CA 93612

Class

C61

License No. *

910747

DIR Registration No. *

1000028804

Item No. or Description of Work *

Artificial Turf

Dollar Amount: **OR** **Percentage of Total Bid:**

1%

Email Address:

melissa.mcquown@synlawn.com

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields. 1

Subcontractor: *

T&T Pavement Markings

Business Address *

3276 W Sussex Way Fresno CA 93722

Class

C32

License No. *

687921

DIR Registration No. *

1000046338

Item No. or Description of Work *

Signage and Striping

Dollar Amount: **OR** **Percentage of Total Bid:**

1%

Email Address:

tandtpavemark@gmail.com

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields. 2

Subcontractor: *

Talley Oil, Inc

Business Address *

12483 Road 29 Madera Ca 93638

Class

A

License No. *

822368

DIR Registration No. *

1000009187

Item No. or Description of Work *

Chip Seal

Dollar Amount: **OR** **Percentage of Total Bid:**

4%

Email Address:

gbobian@talleyoil.com

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields. 3

Subcontractor: *

Heritage Bomanite

Business Address *

5651 E Fountain Way Fresno CA 93727

Class

C8, C61, B, C33

License No. *

832278

DIR Registration No. *

1000006911

Item No. or Description of Work *

Decorative Crosswalk

Dollar Amount: **OR** **Percentage of Total Bid:**

1%

Email Address:

joe@heritagebomanite.com

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields. 4

Subcontractor: *

CXT

Business Address *

PO Box 676208 Dallas TX 75267

Class

B

License No. *

965144

DIR Registration No. *

1000005856

Item No. or Description of Work *

Restroom Building

Dollar Amount: **OR** **Percentage of Total Bid:**

9%

Email Address:

MAlvarado@lbfoster.com

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields. 5

Subcontractor: *

Creative Builders

Business Address *

PO Box 1568 Shafter CA 93263

Class

A

License No. *

808069

DIR Registration No. *

1000007710

Item No. or Description of Work *

Playground Installation

Dollar Amount: **OR** **Percentage of Total Bid:**

2%

Email Address:

creativebuilders@whobuilt.biz

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields. 6

Subcontractor: *

Harmonson Construction

Business Address *

801 Purvis Ave Clovis CA 93612

Class

B, C7, C10

License No. *

1057285

DIR Registration No. *

1000455319

Item No. or Description of Work *

Picnic Shelter Installation

Dollar Amount: **OR** **Percentage of Total Bid:**

2%

Email Address:

chris@harmonsonconstruction.com

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields. 7

Subcontractor: *

Harmonson Construction

Business Address *

801 Purvis Ave Clovis CA 93612

Class

B, C7, C10

License No. *

1057285

DIR Registration No. *

1000455319

Item No. or Description of Work *

Site Furniture Installation

Dollar Amount: **OR** **Percentage of Total Bid:**

2%

Email Address:

chris@harmonsonconstruction.com

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields. 8

Subcontractor: *

Joyner Construction Staking

Business Address *

1034 Robin Ave Hanford CA 93230

Class

N/A

License No. *

PLS 8318

DIR Registration No. *

1001132842

Item No. or Description of Work *

Survey

Dollar Amount: **OR** **Percentage of Total Bid:**

1%

Email Address:

jcsbid@gmail.com

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields. 9

Subcontractor: *

Sunset Landscapes Inc

Business Address *

2614 N Armstrong Ave Fresno CA 93727

Class

C27

License No. *

454597

DIR Registration No. *

1000004630

Item No. or Description of Work *

Landscaping

Dollar Amount: **OR** **Percentage of Total Bid:**

6%

Email Address:

office@sunsetlandscapesinc.com

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields. 10

Subcontractor: *

Pac West Construction Company

Business Address *

PO Box 736 Chowchilla CA 93610

Class

A, C10, C7

License No. *

1047006

DIR Registration No. *

1000385662

Item No. or Description of Work *

Electrical

Dollar Amount: **OR** **Percentage of Total Bid:**

8%

Email Address:

herzog@pac-westconstruction.com

Subcontractors - Proposal 8(b)

Optional: Vendor is not required to complete.

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields.

Subcontractor: *

No bid

Business Address *

No bid

Class

No bid

License No. *

No bid

DIR Registration No. *

No bid

Item No. or Description of Work *

No bid

Dollar Amount:	**OR**	**Percentage of Total Bid:**
No bid		No bid

Email Address:

No bid

Subcontractors - Proposal 8(c)

Optional: Vendor is not required to complete.

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields.

Subcontractor: *

No bid

Business Address *

No bid

Class

No bid

License No. *

No bid

DIR Registration No. *

No bid

Item No. or Description of Work *

No bid

Dollar Amount:	**OR**	**Percentage of Total Bid:**
No bid		No bid

Email Address:

No bid

California Code of Regulations: General Requirements for In-Use Off-Road Diesel-Fueled Fleets - Proposal 9

In conformance with Title 13 § 2449(i), bidders will be required to attach copies of valid Certificates of Reported Compliance for the fleet selected for the contract and their listed subcontractors.

Before May 15th of each year, the prime contractor must collect a new valid Certificate of Reported Compliance for the current compliance year, as defined in section 2449(n), from all fleets that have an ongoing contract with the prime contractor as of March 1 of that year. Prime contractors must not write contracts to evade this requirement. Annual renewals must be provided to the Resident Engineer at least one week prior to the expiration date of the current certificate.

https://ww2.arb.ca.gov/resources/fact-sheets/fact-sheet-contracting-requirements

Choose all that apply:

☑ **Bidder's Certificate of Reported Compliance has been attached to the bid.**

☐ **Bidder does not have a fleet subject to this regulation as outlined in Section 2449(i)(1)-(4).**

☐ **Listed subcontractors' Certificate of Reported Compliance have been attached.**

☐ **The following subcontractors do not have a fleet subject to this regulation as outlined in Section 2449(i)(1)-(4):**

Subcontractors:

☑ **Additional information regarding subcontractor fleets and/or certificates will be submitted within five (5) calendar days of the bid opening.**

FAILURE TO PROVIDE THE CERTIFICATES OF REPORTED COMPLIANCE AS DIRECTED MAY RENDER THE BID NON-RESPONSIVE.

Proposal 10 - 18

NOT USED

Guaranty - Proposal 19

Optional: Vendor is not required to complete.

(This guaranty shall be executed by the successful bidder in accordance with instructions in the special provisions. The bidder may execute the guaranty on this page at the time of submitting their bid.)

G U A R A N T Y

To the Owner: County of Fresno

CONTRACT NUMBER 24-24-PR

The undersigned guarantees the construction and installation of the following work included in this project:

ALL WORK

Should any of the materials or equipment prove defective or should the work as a whole prove defective, due to faulty workmanship, material furnished or methods of installation, or should the work or any part thereof fail to operate properly as originally intended and in accordance with the plans and specifications, due to any of the above causes, all within twelve (12) months after date on which this contract is accepted by the Owner, the undersigned agrees to reimburse the Owner, upon demand, for its expenses incurred in restoring said work to the condition contemplated in said project, including the cost of any such equipment or materials replaced and the cost of removing and replacing any other work necessary to make such replacement or repairs, or, upon demand by the Owner, to replace any such material and to repair said work completely without cost to the Owner so that said work will function successfully as originally contemplated.

The Owner shall have the unqualified option to make any needed replacement or repairs itself or to have such replacements or repairs done by the undersigned. In the event the Owner elects to have said work performed by the undersigned, the undersigned agrees that the repairs shall be made and such materials as are necessary shall be furnished and installed within a reasonable time after the receipt of demand from the Owner.

Date: *

4/03/25

Name (Printed): *

JIM TODD

Signature: *

JIM TODD

Title: *

PRESIDENT

Contractor: *

JT2 INC DBA TODD COMPANIES

Required Documents

Name	Omission Terms	Submitted File
Electronic Bid Bond - Scan of Bid Bond Scan of Notarized Paper Bid Bond with original due by 4pm on the 5th calendar day after the bid opening.	I have already provided a bid bond, i.e. through an electronic Surety above or to the public works office prior to the deadline.	BID BOND - Executed.pdf
CARB Certification of Reported Compliance - Bidder Valid CARB Certification of Reported Compliance - Bidder	Does not have a fleet subject to this regulation.	CARB TODD 2025.pdf
CARB Certification(s) of Reported Compliance - Subcontractors Valid CARB Certification(s) of Reported Compliance - Subcontractors	Due by 4pm on the 5th calendar day after bid opening or no listed subcontractors have a fleet subject to this regulation.	I am not enclosing this document because the omission terms have been met.
3 Required Documents		

Additional Documents (Use if needed)

Name	Omission Terms	Submitted File
Optional: Vendor is not required to complete.		
Not Required Extra Space if needed	Extra space not needed	No bid
Not Required Extra Space if needed	Extra space not needed	No bid
Not Required Extra Space if needed	Extra space not needed	No bid
3 Required Documents		

AIA Document 310 - 2010 Bid Bond

CONTRACTOR (Name, legal status and address):

JT2 Inc. DBA Todd Companies
P O Box 6820
Visalia, CA 93290

SURETY (Name, legal status and principal place of business):

Fidelity and Deposit Company of Maryland
1299 ZURICH WAY, 5TH FLOOR
SCHAUMBURG, IL 60196 - 1056

OWNER (Name, legal status and address):

County of Fresno
Deparment of Public Works and Planning, 2220 Tulare St., 7th Floor
Fresno, CA. 93721

Bond Amount: 10% of Bid

PROJECT : (Name, location or address, and Project number, if any):
Choinumni Park Improvements

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters in to a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed by the Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, 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.

Signed and sealed this 18th day of March 2025

(Witness) (Seal)

(Witness) (Seal)

JT2 Inc. dba Todd Companies
(Principal) (Seal)
President
(Title)

Fidelity and Deposit Company of Maryland
(Surety)
Lori L. Endsley
(Title) Lori L. Endsley, Attorney-in-Fact

Language conforms to AIA Document A310 Bid Bond
BID70001ZZ0311f

ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Illinois, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Illinois (herein collectively called the "Companies"), by Robert D. Murray, Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint Jennifer WHEELER, Ronald D. OSBORN, Lori L. ENDSLEY, Verity RACHT, Carol BURNS **of Fresno, California,** its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings,** and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said **ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND**, this 2nd day of August, A.D. 2024.

ATTEST:
ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND

By: Thomas O. McClennan
Vice President

By: Dawn E. Brown
Secretary

State of Maryland
County of Baltimore

On this 2nd day of August, A.D. 2024, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **Thomas O. McClellan, Vice President and Dawn E. Brown, Secretary** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposeth and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

Genevieve M. Maison

GENEVIEVE M. MAISON
NOTARY PUBLIC
BALTIMORE COUNTY, MD
My Commission Expires JANUARY 27, 2025

Authenticity of this bond can be confirmed at bondvalidator.zurichna.com or 410-559-8790

EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify of revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 18th day of March, 2025.

MJ Pethick

Mary Jean Pethick
Vice President

TO REPORT A CLAIM WITH REGARD TO A SURETY BOND, PLEASE SUBMIT A COMPLETE DESCRIPTION OF THE CLAIM INCLUDING THE PRINCIPAL ON THE BOND, THE BOND NUMBER, AND YOUR CONTACT INFORMATION TO:

Zurich Surety Claims
1299 Zurich Way
Schaumburg, IL 60196-1056
reportsfclaims@zurichna.com
800-626-4577

Authenticity of this bond can be confirmed at bondvalidator.zurichna.com or 410-559-8790

CALIFORNIA ACKNOWLEDGMENT **CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Fresno }

On March 18, 2025 *Date* before me, Elizabeth Durham, Notary Public *Here Insert Name and Title of the Officer*

personally appeared Lori L. Endsley *Name(s) of Signer(s)*

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

ELIZABETH DURHAM
Notary Public - California
Fresno County
Commission # 2368564
My Comm. Expires Jul 30, 2025

Place Notary Seal and/or Stamp Above

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature E. Durham
Signature of Notary Public

OPTIONAL

Completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: Bia Bond
Document Date: March 18, 2025 Number of Pages: 2
Signer(s) Other Than Named Above:

Capacity(ies) Claimed by Signer(s)

Signer's Name: Lori L. Endsley	Signer's Name:
☐ Corporate Officer – Title(s):	☐ Corporate Officer – Title(s):
☐ Partner – ☐ Limited ☐ General	☐ Partner – ☐ Limited ☐ General
☐ Individual ☒ Attorney in Fact	☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator	☐ Trustee ☐ Guardian or Conservator
☐ Other:	☐ Other:
Signer is Representing:	Signer is Representing:

©2019 National Notary Association

California Environmental Protection Agency

Air Resources Board

January 1, 2025

CERTIFICATE OF REPORTED COMPLIANCE
OFF-ROAD DIESEL VEHICLE REGULATION

is issued to

TODD COMPANIES

This certificate indicates that the fleet listed above has reported off-road diesel vehicles to the California Air Resources Board and has certified they are in compliance with title 13 CCR, section 2449. All applicable vehicles owned by the individual, company, or agency must be reported and labeled, as specified in Section 2449, with all possible completeness, else this certificate is null and void. **Certificate expires 2/28/2026**

Jack Kitowski
Chief, Mobile Source Control Division
California Air Resources Board

Off-road Diesel Fleet Identification

113002

To verify the authenticity of this certificate, enter this number at
http://www.arb.ca.gov/doors/compliance_cert1.html

Bid Summary - *Corrected**
Fresno County Department of Public Works and Planning

Project: **Choinumni Park Improvements**
Contract No.: **24-24-PR**

Bidders

1 **JT2 Inc dba Todd Companies**, 1701 N Clancy Ct Visalia CA 93291
2 **Clean Cut Landscape Incorporated**, 8406 N Armstrong Ave, Clovis, CA 3619
3 **Caliber Contracting Services, Inc.**, 5191 East Dakota Ave, Fresno, CA 93727
4 **Cal Valley Construction, Inc.**, 5125 N Gates Avenue #102, Fresno, CA 93722
5 **Truxell & Valentino Landscape Development, Inc.**, 2151 N Highland Ave, Fresno, CA 93737

BASE BID - General - Proposal 2				Engineer's Estimate		1		2		3		4		5	
ITEM NO.	QUANTITY	UNIT OF MEASURE	ITEM DESCRIPTION	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)
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Bid Summary - *Corrected
Fresno County Department of Public Works and Planning

Additive 1 - Trail Kiosk - Proposal 2

ITEM NO.	ESTIMATED QUANTITY	UNIT OF MEASURE	ITEM DESCRIPTION	Engineer's Estimate		1		2		3		4		5	
				ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)
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			ADDITIVE 1 - TRAIL KIOSK - PROPOSAL 2 (ITEM 42)	**$48,000.00**		**$259,394.22**		**$195,162.00**		**$180,000.00**		**$258,000.00**		**$264,900.00**	

Additive 2 - Park Lighting - Proposal 2

ITEM NO.	ESTIMATED QUANTITY	UNIT OF MEASURE	ITEM DESCRIPTION	Engineer's Estimate		1		2		3		4		5	
				ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)
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			ADDITIVE 2 - PARK LIGHTING - PROPOSAL 2 (ITEMS 43-44)	**$123,600.00**		**$194,535.12**		**$180,600.00**		**$208,500.00**		**$93,600.00**		**$135,000.00**	

Additive 3 - Sand Volleyball Courts - Proposal 2

ITEM NO.	ESTIMATED QUANTITY	UNIT OF MEASURE	ITEM DESCRIPTION	Engineer's Estimate		1		2		3		4		5	
				ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)
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			ADDITIVE 3 - SAND VOLLEYBALL COURTS - PROPOSAL 2 (ITEM 45)	**$161,531.00**		**$127,738.24**		**$117,063.00**		**$95,000.00**		**$90,000.00**		**$152,000.00**	

Additive 4 - Basketball Court and Equipment - Proposal 2

ITEM NO.	ESTIMATED QUANTITY	UNIT OF MEASURE	ITEM DESCRIPTION	Engineer's Estimate		1		2		3		4		5	
				ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)
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			ADDITIVE 4 - BASKETBALL COURT AND EQUIPMENT - PROPOSAL 2 (ITEMS 46-47)	**$166,200.00**		**$73,678.08**		**$128,359.60**		**$155,152.00**		**$82,432.00**		**$141,097.60**	

Additive 5 - Asphalt Treatment for Rest of Existing HMA Pavement - Proposal 2

ITEM NO.	ESTIMATED QUANTITY	UNIT OF MEASURE	ITEM DESCRIPTION	Engineer's Estimate		1		2		3		4		5	
				ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)
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			ADDITIVE 5 - ASPHALT TREATMENT FOR REST OF EXISTING HMA PAVEMENT - PROPOSAL 2 (ITEM 48)	**$89,300.00**		**$123,234.00**		**$93,765.00**		**$111,625.00**		**$133,950.00**		**$123,903.75**	

Additive 6 - Restroom and Septic Sewage System - Proposal 2

ITEM NO.	ESTIMATED QUANTITY	UNIT OF MEASURE	ITEM DESCRIPTION	Engineer's Estimate		1		2		3		4		5	
				ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)	ITEM PRICE (IN FIGURES)	TOTAL PRICE (IN FIGURES)
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			ADDITIVE 6 - RESTROOM AND SEPTIC SEWAGE SYSTEM - PROPOSAL 2 (ITEMS 49-50)	**$443,500.00**		**$579,874.40**		**$548,233.00**		**$500,000.00**		**$520,000.00**		**$639,350.00**	
			TOTAL ADDITIVES 1 THROUGH 6 (BID ITEMS 42 THROUGH 50)	**$1,032,131.00**		**$1,358,454.06**		**$1,263,182.60**		**$1,250,277.00**		**$1,177,982.00**		**$1,456,251.35**	
			TOTAL BASE BID + ADDITIVES 1 THROUGH 6 (BID ITEMS 1 THROUGH 50)	**$3,103,575.00**		**$3,481,231.10**		**$3,487,409.60**		**$3,622,525.00**		**$3,610,522.75**		**$4,070,141.35**	

** Corrected on 04/09/2025. Bidders were originally listed from lowest to highest bid amount using the overall total bid amount (Base Bid + Additives). Corrected to order bidders lowest to highest using the basis of bid, the Base Bid amount only. Only the order of bidders 3 and 4 were affected.*

SPECIFICATIONS

CHOINUMNI PARK IMPROVEMENTS

26501 PINE FLAT ROAD SANGER, CA 93657

STATE OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION
PROJECT NUMBER: RG-10-001

BUDGET / ACCOUNT: 8867 / 8150 / 91867

Department of Public Works and Planning

CONTRACT NUMBER 24-24-PR

March 27, 2025 Contract No. 24-24-PR

ADDENDUM NO. 1 to CHOINUMNI PARK IMPROVEMENTS, revising the Bidding and Contract Documents as follows:

TABLE OF CONTENTS

No changes

NOTICE TO BIDDERS

DELETE:

Working Days (Subsection 8-1.04C):
First order of work within thirty (30) working days
Second order of work within seventy (70) working days
If all additive bids awarded, an additional thirty-five (35) working days

REPLACE with:

Working Days (Subsection 8-1.04C):
First order of work within thirty (30) working days
Second order of work within eighty (80) working days
If all additive bids awarded, an additional fifty (50) working days

SPECIAL PROVISIONS

Section 1-1.01 GENERAL

DELETE:

If January 1st, March 31st, July 4th, November 11th, or December 25th fall on a Saturday, the preceding Friday is a holiday.

REPLACE with:

If January 1st, March 31st, June 19th, July 4th, November 11th, or December 25th fall on a Saturday, the preceding Friday is a holiday.

Section 8-1.04C(2) Second Order of Work

DELETE:

Additive Bids if Awarded	Number of Additional Working Days
Additive 1	**10**
Additive 2	**5**
Additive 3	**5**
Additive 4	**10**
Additive 5	**5**

REPLACE with:

Additive Bids if Awarded	Number of Additional Working Days
Additive 1	**10**
Additive 2	**5**
Additive 3	**5**
Additive 4	**10**
Additive 5	**5**
Additive 6	**15**

STATE REQUIREMENTS

No changes

PROJECT DETAILS / DRAWINGS

STORM WATER POLLUTION PREVENTION PLAN

DELETE: Risk Level 2

REPLACE with: Risk Level 1

TECHNICAL SPECIFICATIONS

No changes

PROPOSAL/BID BOOK: PAPER

No changes

PROPOSAL/BID BOOK: BID EXPRESS

No changes

AGREEMENT

DELETE:

B. Automobile Liability

Comprehensive Automobile Liability Insurance with limits of not less than One Million Dollars ($1,000,000) per accident for bodily injury and property damage. Coverage should include owned and non-owned vehicles used in connection with this Agreement and all applicable endorsements.

REPLACE with:

B. Automobile Liability

Comprehensive Automobile Liability Insurance with limits of not less than One Million Dollars ($1,000,000) per accident for bodily injury and property damage. Coverage must include any vehicles used in connection with this Agreement.

PLANS

No changes

END OF ADDENDUM NO. 1

Please attach this Addendum to the inside cover of the Specifications booklet. If you have given the Bidding and Contract Documents to someone else, please forward this Addendum.

3/27/25
Date Signed

Supervising Engineer: _____
Sebastian Artal, PE C76724

FRESNO COUNTY
Department of Public Works and Planning
m/a 2220 Tulare Street, Suite 720
Fresno, CA 93721-2106

In responsible charge of the Special Provisions Sections 1 through 94

T A B L E O F C O N T E N T S

COVER SHEET

COUNTY ADOPTION AND ACKNOWLEDGMENT

Engineer's Signature
Consultant’s Signature

NOTICE TO BIDDERS

SPECIAL PROVISIONS

TECHNICAL SPECIFICATIONS

STATE REQUIREMENTS

PROJECT DETAILS / DRAWINGS

Project Drawings/Details
- Location Map
- Construction Funding Signs
- County Building Department Dummy Permit
- Storm Water Pollution Prevention Plan (SWPPP)

Self-Dealing Transactions Disclosure Form

BID BOOK

Instructions for Completing the Bid Book
Bidder’s Declaration
Bid Form
Evaluation of Bid Item List
Bid Security and Signature
Non-Collusion Declaration
Public Contract Code
Subcontractor List
General Requirements for In-Use Off-Road Diesel-Fueled Fleets Certifications
Guaranty

AGREEMENT

Agreement

PLANS

COUNTY ADOPTION AND ACKNOWLEDGEMENT
PROJECT: CHOINUMNI PARK IMPROVEMENTS
CONTRACT NUMBER: 24-24-PR

Ernest "Buddy" Mendes, Chairman	4th District
Garry Bredefeld, Vice Chairman	2nd District
Brian Pacheco	1st District
Luis Chavez	3rd District
Nathan Magsig	5th District

Paul Nerland, County Administrative Officer

Steven E. White, Director — Date 2/26/25
Department of Public Works and Planning

REGISTERED PROFESSIONAL ENGINEER
SEBASTIAN T. ARTAL
No. C76724
CIVIL
STATE OF CALIFORNIA

Date Signed: 2/26/25

Supervising Engineer: _____
Sebastian Artal, PE 76724

FRESNO COUNTY
Department of Public Works and Planning
m/a 2220 Tulare Street, Suite 720
Fresno, CA 93721-2106

In responsible charge of the Special Provisions Sections 1 through 94

COUNTY ADOPTION AND ACKNOWLEDGEMENT
PROJECT: CHOINUMNI PARK IMPROVEMENTS
CONTRACT NUMBER: 24-24-PR

Date Signed: 2/26/2025

Consultant Engineer: _____
Orfil Muniz, PE C88165

A&M Consulting Engineers
220 N. Locust St.
Visalia, CA 93291

In responsible charge of the Technical Specifications and Plans

COUNTY ADOPTION AND ACKNOWLEDGEMENT
PROJECT: CHOINUMNI PARK IMPROVEMENTS
CONTRACT NUMBER: 24-24-PR

Date Signed: _____

Consultant Engineer: _____
Orfil Muniz, PE C88165

A&M Consulting Engineers
220 N. Locust St.
Visalia, CA 93291

In responsible charge of the Technical Specifications and Plans

COUNTY OF FRESNO **STATE OF CALIFORNIA**

NOTICE TO BIDDERS

Contract Name: **CHOINUMNI PARK IMPROVEMENTS**

Project Address / Location: **26501 PINE FLAT ROAD SANGER, CA 93657**

Contract Number: **24-24-PR**

Bid Opening Date & Time: Thursday, April 3, 2025
2:00 P.M., (1400 hours and 00 seconds)

Sealed Proposals / Bids Received at EITHER (choose ONE):
https://www.bidexpress.com/businesses/36473/home
or
Department of Public Works and Planning
Office of the Design Engineer
2220 Tulare St., 7th Floor
Fresno, CA 93721

The work to be done consists, in general, of improvements to Choinumni Park including furnishing and installing picnic/barbecue areas, prefabricated shelters, playground and play structures, horseshoe pits, and concrete cornhole boards, miscellaneous signage and striping, and miscellaneous electrical and plumbing improvements throughout the park. The work will also include two new trails, application of chip seals on existing roads and camp stalls, and replacement of the existing campsite fire pits and picnic tables. This project contains additive items including construction of restrooms and septic system, informational kiosks along the trails, installation of solar powered lights, application of additional chip seal to the remaining roads throughout the park and the construction of a basketball court and volleyball courts.

Pre-bid Conference: Not Mandatory
1:00 P.M. on Wednesday, March 12, 2025
26501 Pine Flat Road Sanger, CA 93657

Planholders Website: “Contractor Bidding Opportunities”
http://www.fresnocountyca.gov/planholders

Requests for Clarification (RFC) Deadline & Form:
https://www.fresnocountyca.gov/Departments/Public-Works-and-Planning/Construction-Bidding-Opportunities/24-24-PR-Choinumni-Park-Improvements/Request-for-Clarification-Form
no later than 2:00 P.M. on the seventh (7th) calendar day before bid opening

Bid Submission Questions: DesignServices@fresnocountyca.gov
(559) 353-4919 or (559) 600-4543

Request to be Added to Planholders Form:
https://www.fresnocountyca.gov/Departments/Public-Works-and-Planning/Construction-Bidding-Opportunities/Request-to-Be-Added-to-the-Planholders-List-Form

Engineer’s Estimate Range: Base Bid: $1,950,000 - $2,150,000
Total including Base and Additives: $2,900,000 - $3,200,000

Working Days (Subsection 8-1.04C):

First order of work within thirty (30) working days
Second order of work within seventy (70) working days
If all additive bids awarded, an additional thirty-five (35) working days

Required Valid California Contractor's License:

Class A (General Engineering)

State Project Number: RG-10-001

Basis of Bid: Bids are required for the entire work described herein, including a bid for the base bid and a bid for each of the additive bids. The lowest bidder will be determined using the base bid only. The lowest bid shall be the lowest bid price on the base contract without consideration of the prices of any additive bid items.

Project Details:
Electronic copies, in ".pdf" file format, of the official project plans and specifications, bid books and proposal sheets, and such additional supplemental project information as may be provided, are available to view, download, and print on the Planholders website.

This project is funded by a State of California Department of Parks and Recreation, Office of Grants and Local Services, Regional Park Program Grant.

Bid Opening: Promptly following the closing of the bidding all timely submitted bids will be publicly opened and viewable via a livestream (the link for which will be posted at) for construction in accordance with the project specifications therefor. A bid summary of the bids received will be posted to the project's website, generally within twenty-four (24) hours of the bid opening.

Planholders: Bidders may fill out a Request to be Added to Planholders list at the link listed above. Requesters will then be listed as a planholder for the project on the website and receive notifications and addenda issued for the project. Prospective bidders may also select the project on www.BidExpress.com. Those that demonstrate interest in the project will be added to the planholders list, and receive notifications and addenda issued for the project. Planholder and exchange/publication names may be obtained from the County of Fresno Planholders website listed above.

Requests for Clarification (RFC) & Addenda: All questions regarding this project shall be in writing and shall be received by the Department of Public Works and Planning (Department), no later than the deadline listed above and shall be submitted on the "Request for Clarification Form" provided on our website above. Any questions received after this deadline may not receive a response. In the event that the bid opening date is revised, the deadline for questions will be extended to no later than 2:00 P.M. on the calendar days listed above before the revised bid opening date. Questions and their responses will be posted on our website under "Request for Clarification Responses."

Any changes to, or clarification of, the project plans and specifications shall be in the form of a written addendum issued to planholders of record. Questions that prompt a change or clarification shall be included in the addendum with the subsequent answer.

Any oral explanation or interpretations given to this project are not binding.

Bid Submission Instructions: If a bidder is unable to submit a bid via Bid Express, Bid Books, which contain bid proposal sheets necessary to submit a bid, may be obtained within the Specifications documents posted on the County of Fresno website.

Electronic bids shall be submitted via the Bid Express website.

Hardcopy bids shall be submitted in a sealed envelope addressed to the "Department of Public Works and Planning, Office of the Design Engineer" and labeled with the name of the bidder, contract number, name of the project, and the statement "Do Not Open Until The Time Of Bid Opening."

Bid Security: Bid security in the amount of ten percent (10%) of the amount of the bid, and in the form of a bid bond issued by an admitted surety insurer licensed by the California Department of Insurance, cash, cashier's check or certified check shall accompany the bid. You must either attach an electronic bid bond or provide an original bid bond (or other form of bid security authorized by Public Contract Code section 20129(a)), prior to the bid opening. Bid security shall be made in favor of the ***County of Fresno.***

Hardcopy bid bonds shall be submitted in a sealed envelope addressed to "Department of Public Works and Planning, Office of the Design Engineer" and labeled with the name of the bidder, contract number, name of the project, and the statement "Do Not Open Until The Time Of Bid Opening – BID BOND."

Each bond specified in this Notice shall be issued by a surety company designated as an admitted surety insurer in good standing with and authorized to transact business in this state by the California Department of Insurance, and acceptable to the County of Fresno. Bidders are cautioned that representations made by surety companies will be verified with the California Department of Insurance. Additionally, the County of Fresno, in its discretion, when determining the sufficiency of a proposed surety company, may require the surety company to provide additional information supported by documentation. The County generally requires such information and documentation whenever the proposed surety company has either a Best's Key Rating Guide of less than **A** and a financial size designation of less than **VIII**. Provided, however, that the County expressly reserves its right to require all information and documentation to which the County is legally entitled from any proposed surety company.

Additional Information and Requirements:
No contract will be awarded to a contractor who has not been licensed in accordance with the provisions of the Contractors State License Law, California Business and Professions Code, Division 3, Chapter 9, as amended, or whose bid is not on the proposal form included in the contract document.

This project is subject to the contracting requirements and implementing regulations as amended in Title 13, Section 2449 General Requirements for In-Use Off-Road Diesel-Fueled Fleets, of the California Code of Regulations (13 CCR § 2449(i)). Bidders must submit a valid Certificate of Reported Compliance (CRC) issued by the California Air Resources Control Board at the time of bidding. Bidders are responsible for submitting their listed subcontractors' CRCs and any supporting documentation within five (5) calendar days of the bid opening. Failure to submit the required CRCs may render a bid non-responsive.

Pursuant to Section 1773 of the Labor Code, the general prevailing wage rates in the county, or counties, in which the work is to be done have been determined by the Director of the California Department of Industrial Relations. These wages are set forth in the General Prevailing Wage Rates for this project, available at County of Fresno, Department of Public Works and Planning, 2220 Tulare Street, Sixth (6th) Floor, Fresno CA 93721-2104 and available from the California Department of Industrial Relations' Internet web site at http://www.dir.ca.gov/DLSR/PWD. Future effective general prevailing wage rates, which have been predetermined and are on file with the California Department of Industrial Relations are referenced but not printed in the general prevailing wage rates.

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 [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 unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This contract is subject to state contract nondiscrimination and compliance requirements pursuant to Government Code section 12990.

The successful bidder shall furnish a faithful performance bond in the amount of one hundred percent (100%) of the contract amount and a payment bond in the amount of one hundred percent (100%) of the contract amount. Each bond specified in this Notice (bid bond, faithful performance bond and payment bond) shall meet the requirements of all applicable statutes, including but not limited to those specified in Public Contract Code section 20129 and Civil Code section 3248.

Pursuant to Public Contract Code section 22300, substitution of securities for any moneys withheld by the County of Fresno to ensure performance under the contract shall be permitted.

The Board of Supervisors reserves the right to reject any or all bids.

Board of Supervisors, County of Fresno

Paul Nerland, County Administrative Officer

Bernice E. Seidel, Clerk of the Board

Issue Date: February 25, 2025

Special Provisions

Contract Number 24-24-PR

DIVISION I GENERAL PROVISIONS

1 GENERAL

1-1.01 GENERAL

Add to the beginning of Section 1:

The work is done in accordance with the 2023 *Standard Specifications*, 2023 *Standard Plans* and the following special provisions.

Where these special provisions indicate to replace, add to, delete, delete from, or otherwise modify a "section," or a portion thereof, the section or portion thereof to which such modification is to be applied is the section or portion thereof with the corresponding numbering in the 2023 *Standard Specifications*.

Revised standard plans apply if listed on the "List of Revised Standard Plans," if any, in these special provisions; or if shown or referenced on the project plans or in the project details section of the book entitled "Specifications."

In case of conflict between the *Standard Specifications* and these special provisions, the special provisions shall take precedence over and be used in lieu of such conflicting portions.

Add to the end of Section 1-1.01:

REFER TO SECTION 34 00 00 OF THE TECHNICAL SPECIFICATIONS

Add to the 1st table of Section 1-1.06:

SJVAPCD	San Joaquin Valley air pollution control district
METS	Caltrans Material Engineering and Testing Services

Add to Section 1-1.06:

Abbreviations in the Bid Items and Applicable Sections are also used in the Bid Item List - Proposal 2.

Add or Replace items in Section 1-1.07 with:

Authorized Facility Audit List: Caltrans-developed list of facilities. For the Authorized Facility Audit List, go the METS website.

Authorized Material List: Caltrans-developed list of authorized materials. For the Authorized Material List go to the METS website.

Authorized Material Source List: Caltrans-developed list of authorized source materials. For the Authorized Material Source List go to the METS website.

Bid Item List: List of bid items, units of measure, and the associated quantities. The verified Bid Item List is the Bid Item List with verified prices. The Contract Proposal (Proposal 2) of Low Bidder at the Department's website is the verified Bid Item List. After contract award, interpret a reference to the Bid Item List as a reference to the verified Bid Item List.

Caltrans: State of California Department of Transportation

County: The County of Fresno

Department: The Fresno County Board of Supervisors and its authorized representatives.

District Office: County of Fresno Department of Public Works and Planning

Director: Department's Chairman

Engineer: The County's Director of Public Works and Planning, acting through their authorized designees.

federal-aid contract: Contract that has a federal-aid project number on the cover of the *Specifications*.

holiday: Holiday shown in the following table:

Holidays

Holiday	Date observed
Every Sunday	Every Sunday
New Year's Day	January 1st
Birthday of Martin Luther King, Jr.	3rd Monday in January
Presidents' Day	3rd Monday in February
Cesar Chavez Day	March 31st
Memorial Day	Last Monday in May
Juneteenth	June 19th
Independence Day	July 4th
Labor Day	1st Monday in September
Veterans Day	November 11th
Thanksgiving Day	4th Thursday in November
Day after Thanksgiving Day	Day after Thanksgiving Day
Christmas Day	December 25th

If January 1st, March 31st, June 19th, July 4th, November 11th, or December 25th fall on a Sunday, the Monday following is a holiday. If January 1st, March 31st, July 4th, November 11th, or December 25th fall on a Saturday, the preceding Friday is a holiday.

Office engineer: The Director of Public Works and Planning for the County of Fresno

permanent erosion control establishment period: Number of working days shown in Section 8-1.04 for permanent erosion control establishment work.

plans: Standard plans, revised standard plans, and project plans.

1. **standard plans:** Drawings standard to Department construction projects. These plans are in a book titled *Standard Plans*.
2. **revised standard plans:** New or revised standard plans. These plans are listed in the *List of Revised Standard Plans* in a book titled *Specifications*.
3. **project plans:** Drawings specific to the project, including authorized shop drawings. These plans also include a section titled *Project Details* of a book titled *Specifications*.

specifications: Standard specifications, revised standard specifications, and special provisions.

1. **standard specifications:** Specifications standard to Department construction projects. These specifications are in a book titled *Standard Specifications*.
2. **special provisions:** Specifications specific to the project. These specifications are in a section titled *Special Provisions* of a book titled *Specifications*.

Replace Section 1-1.08 with:

1-1.08 DISTRICTS

Not Used

Add to the end of Section 1-1.09

This project is in a freeze-thaw area.

Replace Section 1-1.10 with:

1-1.10 PAVEMENT CLIMATE REGIONS

To help account for the effects of various climatic conditions on pavement performance, the State has been divided into 9 climate regions. The project's pavement climate region is low mountain.

Replace Section 1-1.11 with:

1-1.11 WEBSITES, ADDRESSES, AND TELEPHONE NUMBERS

Websites, Addresses, and Telephone Numbers

Reference or agency or department unit	Website	Address	Telephone no.
Authorized Material Lists Authorized Material Source Lists	https://dot.ca.gov/programs/engineering-services/authorized-materials-lists	--	--
CA Unified Certification Program's list of certified DBEs	https://californiaucp.dbesystem.com/	--	--
California MUTCD	https://dot.ca.gov/programs/safety-programs/camutcd	--	--
Department	https://www.fresnocountyca.gov/	2220 Tulare Street Design Division – Seventh Floor Fresno, CA 93721	(559) 600-9908
Department of Conservation, Office of Mine Reclamation	http://www.conservation.ca.gov/dmr/	--	--
Department of Industrial Relations	http://www.dir.ca.gov	455 Golden Gate Ave San Francisco CA 94102	--
Design Services - Contract Administration, Planholders, Bid Results	https://www.fresnocountyca.gov/planholders	2220 Tulare Street Design Division – Seventh Floor Fresno, CA 93721	Tel: (559) 353-4919 Fax:(559) 455-4609 Email: DesignServices@fresnocountyca.gov
Division of Accounting, Office of External Accounts Payable	https://dot.ca.gov/programs/accounting	Major Construction Payment and Information Unit Office of External Accounts Payable Division of Accounting Department of Transportation P.O. Box 168043 Sacramento, CA 95816-8043	(916) 227-9013
Division of Construction	http://www.dot.ca.gov/hq/construc/	--	--
Geotechnical Services	https://dot.ca.gov/programs/engineering-services	Geotechnical Services Department of Transportation 5900 Folsom Blvd Sacramento, CA 95819-4612	(916) 227-7000
METS	https://dot.ca.gov/programs/engineering-services	Materials Engineering and Testing Services Department of Transportation 5900 Folsom Blvd Sacramento, CA 95819-4612	(916) 227-7000
MPQP	https://dot.ca.gov/programs/construction/material-plant-quality-program	--	--

Office Engineer	--	Director of Public Works & Planning Fresno County 2220 Tulare St, 8th Floor Fresno, CA 93721	(559) 600-4078
Office of Electrical Systems Regional Transportation Management Center	--	Office of Electrical Systems Regional Transportation Management Center 3165 Gold Valley Dr Rancho Cordova, CA 95742	
Offices of Structure Design, Documents Unit	--	MSC 9-4/4I Documents Unit Offices of Structure Design Department of Transportation 1801 30th St Sacramento, CA 95816-7006	(916) 227-0716
Publication Distribution Unit	--	Publication Unit Department of Transportation 1900 Royal Oaks Dr Sacramento, CA 95815-3800	--

Replace Section 1-1.12 with:

1-1.12 MISCELLANY

Make checks and bonds payable to the County of Fresno.

2 BIDDING

Replace Section 2-1.04 with:

2-1.04 PREBID OUTREACH MEETING

Section 2-1.04 applies if a mandatory pre-bid meeting is shown on the Notice to Bidders.

The Department may conduct a meeting to provide access to the site and/or discuss the project in the presence of County staff.

Each bidder must attend the meeting. The bidder's representative must be a company officer, project superintendent, or project estimator. For a joint venture, one of the parties must attend the mandatory pre-bid meeting.

The Department does not accept a bid from a bidder who did not attend the meeting.

A sign-in will be used to identify the attendees. Each bidder must include the name and title of the company representative attending the meeting.

The Department may hold a single pre-bid meeting for more than one contract. Sign in for the contract you intend to bid on. If you are bidding on multiple contracts, sign-in for each contract you intend to bid on. The sign-in lists, with the names of all companies in attendance at each pre-bid meeting, will be made available at the website shown on the Notice to Bidders for bidder inquiries.

Replace Section 2-1.06 with:

2-1.06 BID DOCUMENTS

2-1.06A General

The *Bid* book includes bid forms and certifications and are available online at http://www.BidExpress.com and in the *Specifications*.

The *Specifications* includes the *Notice to Bidders*, project details, special provisions, *Bid* book, and agreement.

The *Specifications*, project plans, and any addenda to these documents may be accessed at the planholders website at https://www.fresnocountyca.gov/planholders.

The *Standard Specifications* and *Standard Plans* may be accessed online at https://www.fresnocountyca.gov/files/sharedassets/county/v/2/public-works-and-planning/design/construction-bidding-opportunities/2023-standard-specs.pdf

2-1.06B Supplemental Project Information

No supplemental project information is available for this project.

The Department makes the following supplemental project information available:

Supplemental Project Information

Where Available	Description
Included in Project Details	• Location Map • Construction Funding signs • County Building Department dummy permit • SWPPP
Supplemental Information	• Geotech Report

If as-built drawings are available, they may not show existing dimensions and conditions. Where new construction dimensions are dependent on existing bridge dimensions, verify the field dimensions and adjust the dimensions of the work to fit the existing conditions.

Replace Section 2-1.12 with:

2-1.12 RESERVED

Replace Section 2-1.15 with:

2-1.15 RESERVED

Replace Section 2-1.18 with:

2-1.18 RESERVED

Replace Section 2-1.27 with:

2-1.27 RESERVED

Replace Section 2-1.33 with:

2-1.33 BID DOCUMENT COMPLETION AND SUBMITTAL

2-1.33A General

Complete forms in the *Bid* book.

Certain bid forms must be submitted with the bid and properly executed.

Certain other forms and information must be submitted either with the bid or within the prescribed period after bid opening as specified elsewhere in these special provisions.

Failure to submit the forms and information as specified results in a nonresponsive bid.

If an agent other than the authorized corporation officer or a partnership member signs the bid, file a Power of Attorney with the Department either before opening bids or with the bid. Otherwise, the bid may be nonresponsive.

Electronic Bids: Electronic versions of the bid book documents are available online at http://www.BidExpress.com and may be submitted through that website. Complete and submit the bid online at http://www.BidExpress.com (Section 2-1.33). Your electronic signature is your confirmation of an agreement to all certifications and statements contained in the Bid book. On forms and certifications that you submit through the electronic bidding service, you agree that each form and certification where a signature is required is deemed as having your signature.

Hardcopy Bid: Submit a hardcopy bid:

1. Under sealed cover
2. Marked as a bid
3. Identifying the contract number and the bid opening date
4. Use ink or typewriter

2-1.33B Bid Item List and Bid Comparison

Submit a bid based on the bid item quantities the Department shows on the Bid Item List (Proposal 2). Bids will be evaluated and the low bidder determined as indicated in the *Notice to Bidders.*

Do not submit an unbalanced bid. An unbalanced is a bid is one in which one or more bid items is/are considered by the Department to have been bid at an amount that is unreasonably high or unreasonably low. A bid may be considered to be non-responsive and may be rejected if it is considered by the Department to be unbalanced.

2-1.33C Bid Document Completion

Proposal items are identified by title and by the word “Proposal” followed by the number assigned to the proposal item in question. Proposal items are included in the *Bid Book.*

2-1.33C(1) Proposal 1 - Proposal to the Board of Supervisors of Fresno County

2-1.33C(2) Proposal 2 - Bid Item List

One or more sheet(s) or list(s) upon which the bidder completes the bid.

Fill out completely including a unit price and total for each unit price-based item and a total for each lump sum item.

Do not make any additions such as “plus tax”, “plus freight”, or conditions such as “less 2% if paid by 15th”.

Use ink or typewriter for paper bids.

2-1.33C(3) Proposal 3 - Evaluation of Bid Item List

Describes how inconsistences and irregularities are evaluated and corrected when Design Services reviews the Bid Item List.

2-1.33C(4) Proposal 4 - Bid Security and Signature

Submit one of the following forms of bidder's security equal to at least 10 percent of the bid:

- Cash
- Cashier's check
- Certified check
- Signed bidder's bond by an admitted surety insurer

Indicate type of bid security provided.

- Cash – Acceptable but not recommended. Cash is deposited in a clearing account and is returned to bidders by County warrant. This process may take several weeks.
- Cashier's or Certified Checks –This type of security is held until the bid is no longer under consideration. If submitted by a potential awardee, they will be returned when the contract is fully executed by the bidder and bonds and insurance have been approved.
- Bid Bonds – Must be signed by the bidder and by the attorney-in-fact for the bonding company. Provide notarized signature of attorney-in-fact accompanied by bonding company's affidavit authorizing attorney-in-fact to execute bonds. An unsigned bid bond will be cause for rejection.

Bonding companies may provide their own bid bond forms. Bid Security and Signature sections must be completed by the bidder and submitted with their bid.

Provide contractor's license information.

State business name and if business is a:

- Corporation - list officers
- Partnership - list partners
- Joint Venture - list members; if members are corporations or partnerships, list their officers or partners.
- Individual - list Owner's name and firm name style

Signature of Bidder - the following lists types of companies and corresponding authorized signers.

- Corporation - by an officer
- Partnership - by a partner
- Joint Venture - by a member
- Individual - by the Owner

If signature is by a Branch Manager, Estimator, Agent, etc., the bid must be accompanied by a power of attorney authorizing the individual to sign the bid in question or to sign bids more generally, otherwise the bid may be rejected.

Business Address - Firm's Street Address

Mailing Address - P.O. Box or Street Address

Complete, sign, and return with bid.

2-1.33C(5) Proposal 5 – Non-Collusion Declaration

Must be completed, signed, and returned with bid.

2-1.33C(6) Proposal 6 - Public Contract Code Section 10285.1 Statement

Select "has" or "has not" in accordance with instructions on form, return with completed for with bid. Note that signing the bid constitutes signing this statement.

2-1.33C(7) Proposal 7 - Public Contract Code Section 10162 Questionnaire And Public Contract Code 10232 Statement

Select: "yes" or "no" accordance with instructions on form, include explanation if "yes" is selected. Return completed form with bid. Note that signing the bid constitutes signing this questionnaire and statement.

2-1.33C(8) Proposal 8 - Subcontractors

Sheet(s) or spaces where bidders list subcontractors. List each subcontractor to perform work in an amount in excess of 1/2 of 1 percent of the total bid (Pub Cont Code § 4100 et seq.).

The *Subcontractor List* submitted with the bid must show the name, location of business, work portions to be performed, Department of Industrial Relations registration number, and the contractor's license number for each subcontractor listed.

- Use subcontractor's business name style as registered with the License Board.
- Specify the city in which the subcontractor's business is located and the state if other than California.
- Description of the work to be performed by the subcontractor. Indicate with bid item numbers from the bid item list and/or work descriptions similar to those on bid item list.
- List contractor's license number and Department of Industrial Relations registration number for each subcontractor.

Upon request from Design Services, provide the following additional information within 24 hours of bid opening if not included on the *Subcontractor List* submitted with the bid:

- Complete physical address for each subcontractor listed.
- Percentage of the total bid or dollar amount associated with each subcontractor listed.

2-1.33C(9) Proposal 9 -Title 13, California Code of Regulations § 2449(i) General Requirements for In-Use Off-Road Diesel-Fueled Fleets

Contractors, if applicable, must submit valid Certificates of Reported Compliance with their bid. Subcontractor certificates will be due no later than 4:00 p.m. on the fifth (5th) calendar day after the bid opening if not submitted with the bid.

Proposal 10 - Proposal 18 – Not Used

2-1.33C(19) Guaranty – Proposal 19

Does not need to be signed with the bid. Part of the contract which must be signed by the contractor when contract is executed.

Replace Section 2-1.34 with:

2-1.34 BIDDER'S SECURITY

You must either attach an electronic bid bond or provide an original bid bond (or other form of bid security authorized by Public Contract Code Section 20129(a)), prior to the bid opening.

Submit one of the following forms of bidder's security equal to at least 10 percent of the bid:

1. Cash
2. Cashier's check
3. Certified check
4. Signed bidder's bond by an admitted surety insurer

An electronic bid bond may be submitted either:

1. As an electronic bidder's bond by an admitted surety insurer submitted using an electronic registry service approved by the Department (SurePath or Tinubu).
2. As a scanned attachment of a notarized paper bid with the original paper notarized bidder's bond by the admitted surety insurer so that it is received by Design Services no later than 4:00 PM on the fifth (5th) calendar day after the bid opening.

Cash, cashier's check, certified check, or paper bidder's bonds should be sent in a sealed envelope in accordance with the labeling and address instructions listed on the Notice to Bidders.

Replace Section 2-1.40 with:

2-1.40 BID WITHDRAWAL

1. An authorized agent may withdraw a paper bid before the bid opening date and time by submitting a written bid withdrawal request at the location where the bid was submitted. Withdrawing a bid does not prevent you from submitting a new bid. An authorized agent is an individual authorized to submit a bid.
2. A bidder may withdraw or revise a bid after it has been submitted to the electronic bidding service if this is done before the bid opening date and time.
3. After the bid opening time, you cannot withdraw a bid.

2-1.46 DEPARTMENT'S DECISION ON BID

The Department's decision on the bid amount is final.
The Department may reject:

1. All bids
2. A nonresponsive bid
3. A bid from any entity that is a parent, affiliate, or subsidiary, or that is under common ownership, control, or management with any other entity submitting a bid on the project.

Replace Section 2-1.47 with:

2-1.47 BID RELIEF

The Department may grant bid relief under Pub Cont Code § 5100 et seq. Submit any request for bid relief via email to Design Services at the address listed in the table in Section 1-1.11.

Add Section 2-1.51:

2-1.51 DISCLOSURE OF SELF-DEALING TRANSACTIONS

This provision is only applicable if the contractor is operating as a corporation (a for-profit or non-profit corporation) or if during the term of this agreement, the contractor changes its status to operate as a corporation.

Members of the contractor's Board of Directors shall disclose any self-dealing transactions that they are a party to while contractor is providing goods or performing services under this agreement. A self-dealing transaction shall mean a transaction to which the contractor is a party and in which one or more of its directors has a material financial interest. Members of the Board of Directors shall disclose any self-dealing transactions that they are a party to by completing and signing a Self-Dealing Transaction Disclosure Form which is included in *Project Details* of these special provisions.

In the event that the Contractor (to whom the project is awarded) is operating as a corporation or incorporates during the course of the construction contract, and any member of its board of directors is engaged or intends to become engaged in self-dealing transaction(s), each member of its board of directors who is engaged or intends to become engaged in a self-dealing transaction or transactions must complete and submit to the County a completed Self-Dealing Transaction Disclosure Form (in Project Details) for each such transaction prior to engaging therein or immediately thereafter.

3 CONTRACT AWARD AND EXECUTION

Replace Section 3 with:

3-1.01 GENERAL

Section 3 includes specifications related to contract award and execution.

3-1.02 CONSIDERATION OF BIDS

3-1.02A General

Bids will be compared on the basis listed in the Notice to Bidders.

3-1.02B Tied Bids

The Department breaks a tied bid with a coin toss.

3-1.03 CONTRACTOR REGISTRATION

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.

3-1.04 CONTRACT AWARD

3-1.04A BID PROTEST PROCEDURES

Any bid protest must be submitted in writing and delivered by the Bidder by either of the following means: (1) via e-mail to DesignServices@fresnocountyca.gov; or (2) via certified mail, return receipt requested to the following address: Design Division, Department of Public Works and Planning, 2220 Tulare Street, Sixth Floor, Fresno, CA 93721.

The bid protest must be received no later than 5:00 p.m. of the seventh (7th) calendar day following the bid opening for any issues found within the bid itself, or 5:00 p.m. of the third (3rd) calendar day following the deadline for submittal of the specific bid document(s) placed at issue by the protest.

Any Bidder filing a protest is encouraged to submit the bid protest via e-mail, because the deadline is based on the Department's receipt of the bid protest. A bid protest accordingly may be rejected as untimely if it is not received by the deadline, regardless of the date on which it was postmarked. The Bidder's compliance with the following additional procedures also is mandatory:

a. The initial protest document shall contain a complete statement of the grounds for the protest, including a detailed statement of the factual basis and any supporting legal authority.

b. The protest shall identify and address the specific portion of the document(s) forming the basis for the protest.

c. The protest shall include the name, address and telephone number of the person representing the protesting party.

d. The Department will provide a copy of the initial protest document and any attached documentation to all other Bidders or proposers who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest.

e. The Board of Supervisors will issue a decision on the protest. If the Board of Supervisors determines that a protest is frivolous, the party originating the protest may be determined to be irresponsible and that party may be determined to be ineligible for future contract awards.

f. The procedure and time limits set forth herein are mandatory and are the Bidder's sole and exclusive remedy in the event of a bid protest. Failure by the Bidder to comply with these procedures shall constitute a waiver of any right to further pursue the bid protest, including the subsequent filing of a Government Code Claim or legal proceedings.

3-1.04B AWARD PERIOD

If the Department awards the contract, the award is made to the lowest responsible bidder within 68 calendar days after bid opening.

The Department may extend the specified award period if the bidder agrees.

You may request to extend the award period by e-mailing a request to DesignServices@fresnocountyca.gov before 4:00 p.m. on or before the last day of the award period. If you do not make this request, after the specified award period:

1. Your bid becomes invalid
2. You are not eligible for the award of the contract

3-1.05 CONTRACT BONDS (PUB CONT CODE §§ 10221 AND 10222)

The successful bidder must furnish 2 bonds conforming to the requirements in the *Agreement* of these special provisions.

3-1.06 CONTRACTOR LICENSE

For a federal-aid contract, the Contractor must be properly licensed as a contractor from contract award through Contract acceptance (Pub Cont Code § 10164).

For a non-federal-aid contract:

1. Contractor must be properly licensed as a contractor from bid opening through Contract acceptance (Bus & Prof Code § 7028.15)
2. Joint venture bidders must obtain a joint venture license before contract award (Bus & Prof Code § 7029.1)

3-1.07 INSURANCE POLICIES

The successful bidder must submit copies of its insurance policies conforming to the requirements in the *Agreement* of these special provisions.

3-1.08 –3-1.10 RESERVED

3-1.11 PAYEE DATA RECORD

Complete and deliver to the Engineer a Payee Data Record form when requested by the Engineer.

3-1.12 RESERVED

3-1.13 FORM FHWA-1273

For a federal-aid contract, form FHWA-1273 is included with the Contract form in the documents sent to the successful bidder for execution. Comply with its provisions. Interpret the training and promotion section as specified in Section 7-1.11A.

3-1.14–3-1.17 RESERVED

3-1.18 CONTRACT EXECUTION

The successful bidder must sign the *Agreement*.

Deliver to Design Services:

1. Signed *Agreement* including the attached form FHWA-1273
2. Contract bonds
3. Documents identified in Section 3-1.07
4. For a federal-aid contract, *Local Agency Bidder - DBE Information* form

Design Services must receive these documents before the 10th business day after the bidder receives the contract.

The bidder's security may be forfeited for failure to execute the contract within the time specified (Pub Cont Code §§ 10181, 10182, and 10183).

3-1.19 BIDDERS' SECURITIES

The Department keeps the securities of the 1st, 2nd, and 3rd low bidders until the contract has been executed. The other bidders' securities, other than bidders' bonds, are returned upon determination of the 1st, 2nd, and 3rd low bidders, and their bidders' bonds are of no further effect (Pub Cont Code § 10184).

4 SCOPE OF WORK

Replace Section 4-1.02 with:

4-1.02 INTENT

The Contract intent is to provide for work completion using the best general practices.

Nothing in the specifications, special provisions, Standard Specifications, or in any other Contract document voids the Contractor's public safety responsibilities.

Replace Section 4-1.07D with:

4-1.07D Reserved

Replace the last paragraph of Section 4-1.13 with:

Remove warning, regulatory, and guide signs when directed by the Engineer.

5 CONTROL OF WORK

Delete the last paragraph of Section 5-1.01

Add the following before the last sentence in Section 5-1.02:

Caltrans Standard Plans, County of Fresno Standard Drawings, and any other other-agency Standard Drawings included in the “Project Details” section of the book entitled “Specifications” have the same ranking as Standard Plans.”

All other drawings in the “Project Details” section of the book entitled “Specifications” have the same ranking as Project Plans.

Tables and other documents in the “Project Details” section of the book entitled “Specifications” have the same ranking as Special Provisions. If a portion of a document in the Project Details section conflicts with the Special Provisions, the Special Provisions shall prevail.

Replace Section 5-1.09 with:

5-1.09 RESERVED

Replace Section 5-1.12 with:

5-1.12 ASSIGNMENT

The performance of the Contractor or any Contract part may be assigned only with prior written consent from the Department. To request consent, submit a Contractor Action Request – Assignment of Contract Performance form. The Department does not consent to any requested assignment that would relieve you of your surety of the responsibility to complete the work or any part of the work. No third-party agreement relieves you or your surety of the responsibility to complete the work. Do not sell, transfer, or otherwise dispose of any Contract part without prior written consent from the Department.

If you assign the right to receive Contract payments, the Engineer accepts the assignment upon the Engineer's receipt of a Contractor Action Request – Assignment of Contract Monies, Assignee Change of Name/Address form. Assigned payments remain subject to deductions and withholds described in the Contract. The Department may use withheld payments for work completion whether payments are assigned or not.

A pending or disapproved request for assignment does not relieve you of the responsibility to commence and pursue work timely and in strict accordance with contract documents.

Replace Section 5-1.13C with:

5-1.13C RESERVED

Replace Section 5-1.13D with:

5-1.13D RESERVED

Add the following paragraph to the end of Section 5-1.16:

Submit Daily Log records to the Engineer weekly for the entire course of work unless the Engineer requests another interval.

Replace Section 5-1.20B(4) with:

5-1.20B(4) Contractor–Property Owner Agreement

Before procuring material from or disposing or stockpiling of material on non-highway property:

1. Provide proof that the property where materials are to be stockpiled or equipment parked/stored is appropriately zoned and/or permitted for the use proposed by the Contractor.
2. Obtain written authorization from each and every owner of the property where materials are to be stockpiled or equipment parked/stored.
3. Provide proof that the signor(s) of the authorization are the owners of the property.
4. Provide an executed release from the property owner(s) absolving the Department from any and all responsibility in connection with the stockpiling of materials or parking/storage of equipment on said property.
5. Obtain written permission from the Engineer to stockpile materials or park/store equipment at the location designated in said authorization.

Before Contract acceptance, submit a document signed by the owner of the material source or disposal site stating that the Contractor has complied with the Contractor-owner agreement.

Failure by the Contractor to provide written authorization shall result in the withholding of all funds due to the Contractor until said authorization is received by the County.

Replace Section 5-1.20C with:

5-1.20C Railroad Relations

If the Contract includes an agreement with a railroad company, the Department makes the provisions of the agreement available in Project Details in the document titled "Railroad Relations and Insurance Requirements." Comply with the requirements in the document.

Replace Section 5-1.23A with:

5-1.23A General

Section 5-1.23 includes specifications for action and informational submittals. Refer to Section 01 33 00 of the Technical Specifications for further requirements

Any submittal not specified as an informational submittal is an action submittal.

Submit action and informational submittals to the Engineer. Unless otherwise specified in these Specifications, submittals shall be provided via email in .pdf format.

Each submittal must have a cover sheet that must include:

1. Contract number
2. Project Name
3. Date
4. Submittals (and resubmittals if applicable) must be numbered sequentially

5. Structure number if applicable
6. Contractor
7. Person responsible for submitting the submittal
8. Signature of Contractor's representative sending submittal
9. Section number and/or item submittal is referencing
10. Pages of submittal, excluding cover sheet

The Department rejects a submittal if it has any error or omission.

If the last day for submitting a document falls on a Saturday or holiday, it may be submitted on the next business day with the same effect as if it had been submitted on the day specified.

Documents must be submitted in the English language.

Convert documents to US customary units.

Replace the first paragraph of Section 5-1.23B(2)(b) with:

If specified, email electronic shop drawing and calculation sheet submittals to the Engineer.

Replace Section 5-1.24 with:

5-1.24 CONSTRUCTION SURVEYS

Refer to Section "01 73 00 Execution" of the Technical Specifications

Replace Section 5-1.27E with:

5-1.27E CHANGE ORDER BILLS

Maintain separate records for change order work costs.

Replace Section 5-1.32 with:

5-1.32 AREAS FOR USE

Occupy the highway only for purposes necessary to perform the work.

Defend, indemnify, and hold the Department harmless to the same extent as under Section 7-1.05.

The Department does not allow temporary residences within the County right-of-way.

Replace Section 5-1.43A with:

5-1.43A General

Minimize and mitigate the impacts of work or events for which you will make a potential claim.

For each potential claim assign an identification number determined by chronological sequencing and the 1st date of the potential claim.

Use the identification number for each potential claim on the:

1. Initial Potential Claim Record form
2. Supplemental Potential Claim Record form
3. Full and Final Potential Claim Record form

Failure to comply with this procedure is:

1. Waiver of the potential claim and a waiver of the right to a corresponding claim for the disputed work in the administrative claim procedure
2. Bar to arbitration (Pub Cont Code § 10240.2)

Replace the word "State" with "Department" in the 3rd paragraph of Section 5-1.43D.

Replace the word "Department's" with "Caltrans" in the 6th paragraph of Section 5-1.43E(1)(a).

Replace the word "Department" with "Caltrans" where it appears in Section 5-1.43E(2)(a).

Replace the word "Department" with "Caltrans" where it appears in Section 5-1.43E(3)(a).

6 CONTROL OF MATERIALS

Replace Section 6-1.05 with:

6-1.05 SPECIFIC BRAND OR TRADE NAME AND SUBSTITUTION

Unless substitution is expressly precluded in the special provisions, a reference to a specific brand or trade name establishes a quality standard and is not intended to limit competition. Unless the Department has made a public interest finding expressly authorizing sole source procurement of a particular item, you may use a product that is equal to or better than the specified brand or trade name if authorized.

Submit a substitution request with a time period that:

1. Follows Contract award
2. Allows 30 days for review
3. Causes no delay

Include substantiating data with the substitution request that proves that substitution:

1. Causes no delay
2. Is of equal or better quality and suitability

If the special provisions disallow substitution of a particular item, provide the specified item and do not propose substitution.

Replace Section 6-1.06 with:

6-1.06 RESERVED

7 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

Add after the last paragraph of Section 7-1.02C:

The following information is provided for the Contractor's information, and nothing herein or elsewhere within these special provisions shall be construed as limiting the Contractor's responsibility for complying with all applicable rules and regulations. In conformance with Title 13 § 2449(i), between March 1 and June 1 of each year, new valid Certificates of Reported Compliance for the current compliance year, as defined in Section 2449(n) for the Contractor and all applicable subcontractors must be submitted. Submit new valid Certificates of Reported Compliance to the Engineer at least one week prior to the expiration date of the current certificate.

Replace the 2nd Paragraph of Section 7-1.02K(2) with:

The general prevailing wage rates and any applicable changes to these wage rates are available:

1. From Design Services
2. From the Department of Industrial Relations' Web site

Add to the list in the second paragraph of Section 7-1.02K(3) with:

1.10. Fringe Benefits

Replace Section 7-1.02K(4)(a) with:

7-1.02K(4)(a) Apprenticeship Requirements for non-Federal Projects

A. Pursuant to Sections 1770-1780 of the Labor Code of the State of California, the Director of the Department of Industrial Relations has determined the general prevailing rate of wages in the locality for each craft or type of worker needed to execute the work. Said wage rates pursuant to Section 1773.2 of the Labor Code are on file with the Clerk to the Fresno County Board of Supervisors, and will be made available to any interested person on request. A copy of this wage scale may also be obtained at the following Web Site: www.dir.ca.gov/dlsr

B. Pursuant to Section 1775 of the Labor Code of the State of California, nothing in this Article shall prevent the employment of properly registered apprentices upon public works. Every such apprentice shall be paid the standard wage paid to apprentices under the regulations of the craft or trade at which he/she is employed, and shall be employed only at the work of the craft or trade to which he/she is registered.

C. Only apprentices, as defined in Section 3077, who are in training under apprenticeship standards and written apprentice agreements under Chapter 4 (commencing at Section 3070), Division 3, of the Labor Code, are eligible to be employed on public works. The employment and training of each apprentice shall be in accordance with the provisions of the apprenticeship standards and apprentice agreements under which he/she is training.

Replace the 4th paragraph of Section 7-1.02K(6)(j)(ii) with:

Submit the lead compliance plan as an informational submittal.

Add to the end of Section 7-1.02M(2):

Except for motor trucks, truck tractors, buses, and passenger vehicles, equip all hydrocarbon-fueled engines, both stationary and mobile including motorcycles, with spark arresters that meet USFS standards as specified in the *Forest Service Spark Arrester Guide*. Maintain the spark arresters in good operating condition. Spark arresters are not required by Cal Fire, the BLM, or the USFS on equipment powered by properly maintained exhaust-driven turbo-charged engines or equipped with scrubbers with properly maintained water levels. The *Forest Service Spark Arrester Guide* is available at the district offices.

Each toilet must have a metal ashtray at least 6 inches in diameter by 8 inches deep half-filled with sand and within easy reach of anyone using the facility.

Locate flammable materials at least 50 feet away from equipment service, parking, and gas and oil storage areas. Each small mobile or stationary engine site must be cleared of flammable material for a radius of at least 15 feet from the engine.

Each area to be cleared and grubbed must be cleared and kept clear of flammable material such as dry grass, weeds, brush, downed trees, oily rags and waste, paper, cartons, and plastic waste. Before clearing and grubbing, clear a fire break at the outer limits of the areas to be cleared and grubbed. Other fire breaks may be ordered and are change order work.

Furnish the following fire tools:

1. 1 shovel and 1 fully charged fire extinguisher UL rated at 4 B:C or more on each truck, personnel vehicle, tractor, grader, or other heavy equipment.
2. 1 shovel and 1 backpack 5-gallon water-filled tank with pump for each welder.
3. 1 shovel or 1 chemical pressurized fire extinguisher, fully charged, for each gasoline-powered tool, including chain saws, soil augers, and rock drills. The fire tools must always be within 25 feet from the

point of operation of the power tool. Each fire extinguisher must be of the type and size required by the Pub Res Code § 4431 and 14 CA Code of Regs § 1234. Each shovel must be size O or larger and at least 46 inches long.

Furnish a pickup truck and driver for the sole purpose of fire control during working hours. The truck must be equipped with:

1. 10 shovels, 5 axes, 2 backpack 5-gallon water-filled tanks with pumps
2. 100-gallon tank of water with a gasoline motor powered pump and 100 feet of 3/4-inch hose on a reel.

The pickup truck and operator must patrol the area of construction for at least 1/2 hour after job site activities have ended.

In addition to being available at the site of the work, the truck and operator must patrol the area of construction from noon until at least 1/2 hour after job site activities have ended. If the fire danger rating is very high or extreme, the truck and operator must patrol the area of construction while work is being done and for at least 1/2 hour after job site activities have ended.

Cal Fire, USFS, and BLM have established the following adjective class ratings for 5 levels of fire danger for use in public information releases and fire protection signing: low, moderate, high, very high, extreme. Obtain the fire danger rating daily for the project area from the nearest Cal Fire unit headquarters, USFS ranger district office, or BLM field office.

Arrangements have been made with Cal Fire, USFS, and BLM to notify the Department when the fire danger rating is very high or extreme. This information will be furnished to the Engineer who will notify you for dissemination and action in the area affected. If a discrepancy between this notice and the fire danger rating obtained from the nearest office of either Cal Fire or USFS exists, you must conduct operations according to the higher of the two fire danger ratings.

If the fire danger rating reaches very high:

1. Falling of dead trees or snags must be discontinued.
2. No open burning is permitted and fires must be extinguished.
3. Welding must be discontinued except in an enclosed building or within an area cleared of flammable material for a radius of 15 feet.
4. Blasting must be discontinued.
5. Smoking is allowed only in automobiles and cabs of trucks equipped with an ashtray or in cleared areas immediately surrounded by a fire break unless prohibited by other authority.
6. Vehicular travel is restricted to cleared areas except in case of emergency.

If the fire danger rating reaches extreme, take the precautions specified for a very high fire danger rating except smoking is not allowed in an area immediately surrounded by a firebreak and work of a nature that could start a fire requires that properly equipped fire guards be assigned to such operation for the duration of the work.

The Engineer may suspend work wholly or in part due to hazardous fire conditions. The days during this suspension are non–working days.

If field and weather conditions become such that the determination of the fire danger rating is suspended, Section 7-1.02M(2) will not be enforced for the period of the suspension of the determination of the fire danger rating. The Engineer will notify you of the dates of the suspension and resumption of the determination of the fire danger rating.

Place the contents of Section 7-1.04 under the heading:

7-1.04 PUBLIC SAFETY

7-1.04A General

Replace the 7th paragraph in Section 7-1.04A with:

Provide flaggers whenever necessary to ensure that the public is given safe guidance through the work zone.

Replace the 11th paragraph in Section 7-1.04A with:

Cover signs that direct traffic to a closed area.

Add to the end of Section 7-1.04A:

Where 2 or more lanes in the same direction are adjacent to the area where the work is being performed, including shoulders, the adjacent lane must be closed under any of the following conditions:

1. Work is off the traveled way but within 6 feet of the edge of the traveled way, and the approach speed is greater than 45 miles per hour
2. Work is off the traveled way but within 3 feet of the edge of the traveled way, and the approach speed is less than 45 miles per hour

Closure of the adjacent traffic lane is not required when performing any of the following:

1. Working behind a barrier
2. Paving, grinding, or grooving
3. Installing, maintaining, or removing traffic control devices except Type K temporary railing

Do not reduce an open traffic lane width to less than 10 feet. When traffic cones or delineators are used for temporary edge delineation, the side of the base of the cones or delineators nearest to traffic is considered the edge of the traveled way.

Add the following to the end of Section 7-1.04:

7-1.04B WORK ZONE SAFETY AND MOBILITY

7-1.04B(1) POLICY

In order to ensure safe and efficient flow of traffic through work zones, the County of Fresno, via its General Plan, Transportation and Circulation Element, Policy TRA-1, has adopted the use of AASHTO Standards as supplemented by Caltrans and County Department of Public Works and Planning Standards.

7-1.04B(2)TRAFFIC MANAGEMENT PLAN

Perform traffic management shall be in accordance with Section 12, “TEMPORARY TRAFFIC CONTROL,” of these special provisions.

7-1.04B(3)TEMPORARY TRAFFIC CONTROL PLAN

Prepare traffic control plan(s) in accordance with Section 12, “TEMPORARY TRAFFIC CONTROL,” of these special provisions.

7-1.04B(4)PUBLIC INFORMATION

Provide notice to public agencies and others to the extent required, if any, elsewhere in these special provisions. The Engineer provides other noticing not identified to be performed by the Contractor.

Replace the word “State” with “County” where it occurs in Section 7-1.05C.

Replace the word “State” with “Department” in the 1st paragraph of Section 7-1.06B.

Replace the word "State" with "County" in the 5th paragraph of Section 7-1.06C.

Replace the word "State" with "the Department" in Section 7-1.06D(1).

Replace Section 7-1.06D(2) with:

7-1.06D(2) Liability Limits/Additional Insureds

Refer to the *Agreement* of these special provisions

Additional insured coverage must be provided by a policy provision or by an endorsement providing coverage at least as broad as *Additional Insured* (Form B) endorsement form CG 2010 and CG 2037 (for completed operations), as published by the Insurance Services Office (ISO), or equivalent form as approved by the Department.

Replace the word "State" with "County" in Section 7-1.06D(3).

Replace the word "State" with "County" in Section 7-1.06D(4).

Replace Section 7-1.06E with:

7-1.06E Automobile Liability Insurance

Comply with requirements in the *Agreement* of these special provisions.

Replace Section 7-1.06G with:

7-1.06G NOT USED

Replace Section 7-1.06H with:

7-1.06H Enforcement

The Department may assure your compliance with your insurance obligations. 30 days before an insurance policy lapses, expires, or is canceled during the Contract period you must submit to the Department evidence of renewal or replacement of the policy.

If you fail to maintain any required insurance coverage, the Department may maintain this coverage and withhold or charge the expense to you or terminate your control of the work.

Any failure to comply with the reporting provisions of your policy shall not affect coverage provided to the Department, including its officers, directors, agents (excluding agents who are design professionals), and employees.

You are not relieved of your duties and responsibilities to indemnify, defend, and hold harmless the County, its officers, agents, and employees by the Department's acceptance of insurance policies and certificates.

Minimum insurance coverage amounts do not relieve you for liability in excess of such coverage, nor do they preclude the County from taking other actions available to it, including the withholding of funds under this Contract.

Replace Section 7-1.06I with:

7-1.06I Self-Insurance

Comply with the *Agreement* of these special provisions.

Add to the beginning of Section 7-1.07B:

This section applies to seal coat projects.

Add Section 7-1.07C:

7-1.07C Claims

This section applies to non-seal coat projects which involve asphalt concrete paving. Pay for claims for personal property damage caused by your work. Claims are limited to:

1. 10 percent of the total bid

Within 30 days of the last working day placement of hot mix asphalt, do the following:

1. Process and resolve all claims reported or submitted to you by the public as follows:
   1.1. Within 3 business days of receipt of a claim, submit to the Department a copy of the claim, a written analysis of the claim, and a statement indicating whether or not you will pay the claim. If you reject a claim, provide the reasons for rejection in writing.
   1.2. If the claimant becomes dissatisfied with your handling of the claim, immediately refer the claimant to the local district claims office for assistance in resolving the claim.
2. Submit to the Department evidence of your paid claims.

All claims presented to the Department, (Govt Code § 900 et seq.) are processed and resolved by the Department as follows:

1. The claims are processed as formal government claims subject to all laws and policies and are resolved as the Department determines including referring the claim to you for handling.
2. If the Department approves settlement of a claim or is ordered to pay pursuant to a court order, the claim is paid from funds withheld from you.
3. Within 3 business days of the Department's determination that you are responsible for resolving the claim, the Department sends a copy of the claim to you for resolution or notifies you of the Department's decision to resolve the claim.

The Department withholds an amount not to exceed 5 percent of the total bid to resolve all claims. The amount is held no longer than 60 days following the last working day so that the Department has ample time to resolve any pending claims. After 60 days, any remaining amount withheld is returned to you.

If no withheld funds remain or have been returned, the Department may pay any claims and seek reimbursement from you through an offset or any other legal means. Any reimbursement or offset to be recovered from you, including all other paid claims, is limited to 10 percent of the total bid.

Section 7-1.07C does not limit your obligation to defend and indemnify the Department.

8 PROSECUTION AND PROGRESS

Replace Section 8-1.01 with:

8-1.01 GENERAL

Section 8 includes specifications related to prosecuting the Contract and work progress.

8-1.01A Work Hours

Perform all work on working days during daytime.

You may request approval to work on a holiday or on a non-working day. If, pursuant to such request, the Engineer authorizes you to work on a holiday or on a non-working day, you pay the actual cost incurred by the Department to perform all inspection, surveying, testing, and all other project-related work by the Department on such holiday or non-working day. Such payment will be deducted from monies due or which may become due to the Contractor.

Plan work so that all construction operations performed each day, including cleanup of the project site, establishment of appropriate traffic control and any other work necessary for the safety of the public shall be completed within the daytime hours.

Do not perform work during nighttime unless approved by the Engineer

Request approval to work during nighttime in writing and include the appropriate traffic control plan(s) and work plan(s) which clearly identify all provisions for illuminating all portions of the work site, including any flagging operations.

If you fail to complete work during the daytime hours, the Engineer may stop all work upon the onset of nighttime and order you to perform any and all work the Engineer deems necessary to ensure the safety of the public during the nighttime hours.

You are not entitled to any additional compensation or extension of the contract time as a result of the Engineer stopping the work due to the onset of nighttime.

Replace the 1st paragraph of Section 8-1.02B(1) with:

No pay item is provided for Level 1 Critical Path Project Schedule. Payment is considered to be included in the various items of work including revisions and time analysis.

Add to the end of the list in the 4th paragraph of Section 8-1.02B(3) with:

3. Time Impact Analysis (Refer to Section 8-1.02C(8)(b) for description)

Replace Section 8-1.02C with:

8-1.02C Reserved except for 8-1.02C(8)(b)

Replace Section 8-1.04 with:

8-1.04 START OF JOB SITE ACTIVITIES

8-1.04A General

Provide signed contracts, bonds, and evidence of insurance timely as required.

This section, 8-1.04, "Start of Job Activities," does not modify remedies available to the Department should you fail to provide signed contracts bonds and insurance timely.

Submit a notice 72 hours before starting job site activities. If the project has more than 1 location of work, submit a separate notice for each location.

You may start job site activities before receiving notice of Contract approval if you:

1. Deliver the signed Contract, bonds, and evidence of insurance to the Department
2. Submit 72-hour notice
3. Are authorized by the Department to start
4. Perform work at your own risk
5. Perform work under the Contract

If the Contract is approved, work already performed that complies with the Contract is authorized.

If the Contract is not approved, leave the job site in a neat condition. If a facility has been changed, restore it to its former condition or an equivalent condition. The Department does not pay for the restoration.

8-1.04B Reserved

Replace Section 8-1.04C with:

8-1.04C Long Lead Time Equipment Start

Section 8-1.04B, Standard Start, does not apply to this project

This project includes two, non-concurrent phases.

The first order of work (submittals) involves potholing, submittals and equipment procurement.

The second order of work involves physical construction upon the project site.

8-1.04C(1) First Order of Work, Submittals

Be prepared to begin the first order of work no later than the 20th business day after award of the Contract by the Department.

The Engineer may issue a notice to proceed with the first order of work as soon as the Contracts, including bonds and insurance certificates, have been approved.

Start the first order of work on the day shown in the notice to proceed, unless an early start has been approved.

Potholing at the project site shall be completed within the first ten working days of the first order of work. No submittals will receive final approval until field verification of the final pole location has been approved by the Engineer. Compensation for potholing shall be considered to be included in the various items of work.

The Engineer may issue a notice of commencement of contract time for the first order of work if you fail to provide Contracts, including bonds and insurance certificates or other required documents timely.

The Engineer shall have a maximum of ten (10) working days in which to review and approve or reject each submittal from the Contractor. In the event that the Engineer rejects any of the Contractor's initial submittals, the Engineer shall have a maximum of ten (10) working days in which to review and approve or reject each re-submittal from the Contractor. The ten (10) working daytime period for the Engineer's review shall commence on the day upon which the Engineer receives the submittal or re-submittal in question.

In the event that the Engineer's review of a submittal or re-submittal requires in excess of ten (10) working days, the Engineer shall extend the number of working days allowed for the completion of the first order of work by one working day for each working day of delay in the Engineer's completion of the review.

The first order of work is complete when you:

- have completed potholing at the project site
- have received approval for all submittals required for the project.
- have furnished a statement from the vendors that the orders for required equipment and materials have been received and accepted by said vendor
- have furnished a statement from vendors which indicates that the anticipated delivery date for the equipment and materials ordered is in conformance with contract requirements.
- Receive a written statement that the first order of work is complete.

Complete all work within the number of working days specified in the Notice to Bidders. Start the work from the date shown in said Notice to Proceed, or in the Notice of Commencement of Contract Time, whichever was issued first.

Pay to the County of Fresno the sum of

FIVE HUNDRED DOLLARS ($500.00)

per day for each and every calendar day's delay in finishing the first order of work in excess of the number of working days prescribed above.

8-1.04C(2) Second Order of Work

The Engineer, in their sole discretion, may issue the Notice to Proceed – Second Order of Work immediately upon delivery to the Contractor of the materials and equipment necessary to construct the project. Alternatively, the Engineer may defer issuance of the Notice to Proceed – Second Order of Work to the extent the Engineer, in their sole discretion, deems appropriate.

Begin work at the site on the date shown on the Notice to Proceed – Second Order of Work. Do not begin site work prior to the date shown on the Notice to Proceed – Second Order of Work. The date shown on the Notice to Proceed – Second Order of Work will be the first working day charged against the allotted number of working days for the second order of work.

Contractor will be required to start when majority of the materials purchased by contractor have been delivered and contractor can perform most of the work. It is expected the restroom to have a longer lead time than the rest of the materials; therefore, Contractor will be required to install all underground utilities,

prepare pad and have the site ready for the installation of the pre-manufactured restroom. Contract may be suspended by the County if restroom, shelter have not been delivered to the site by within the allotted working days AND Contractor provides proof from the restroom and/or shelter supplier that the delivery delay is due to circumstances outside Contractor's control. Contractor will be required to complete all other items included in the project, including underground utilities, foundation, etc. for such improvements by the time allotted for this contract.

Complete all work within the number of working days specified in the Notice to Bidders. Start the work from the date shown in said Notice to Proceed – Second Order of Work.

Complete all work, including corrective work and punch list work, prior to the expiration of the allotted working days. Working days continue to accrue until corrective work and punch list work is completed and accepted.

Pay to the County of Fresno the sum of

TWO THOUSAND DOLLARS ($2,000.00)

per day for each and every calendar day's delay in finishing the second order of work, including corrective work and punch list work, in excess of the number of working days prescribed above.

Such payment is in addition to payment, if any, for failure to complete the first order of work as specified.

In the event that additive bid(s) are awarded, additional working days will be granted in accordance with the following:

Additive Bids if Awarded	Number of Additional Working Days
Additive 1	**10**
Additive 2	**5**
Additive 3	**5**
Additive 4	**10**
Additive 5	**5**

Replace the 1st paragraph in Section 8-1.05 with:

Contract time starts on the day specified in the notice to proceed or in the notice of commencement of contract time as described in Section 8-1.04 or on the day you start job site activities, whichever occurs first.

Replace the 3rd and 4th paragraph including the table in Section 8-1.10A with:

Liquidated damages are specified in Section 8-1.04.

Replace the word "State's" with "County's" in Section 8-1.14A.

9 PAYMENT

Add Section 9-1.01A:

9-1.01A COMPENSATION

The bid items shown in the bid item list represent full compensation for performing all work. Full compensation for any work for which there is no bid item shall be considered to be included in the various items of work.

Delete paragraphs 11-14 of Section 9-1.03.

Add after the 6th paragraph of Section 9-1.03:

Notwithstanding anything to the contrary in these special provisions, full compensation for performing all work as shown, as specified, and as directed by the Engineer is considered to be included in the various bid items, and no additional payment will be made, except pursuant to a contract change order to perform work not shown and/or specified.

If one or more bid item(s) is/are not included, perform the work as shown and as specified and payment therefor is considered to be included in the various items of work.

Replace the last paragraph of Section 9-1.03 with:

Pay your subcontractors within 10 days of receipt of each progress payment under Pub Cont Code §§ 10262 and 10262.5.

Replace the word "Department's" with "Caltrans" in the 5th paragraph of Section 9-1.07A.

Replace Section 9-1.16F with:

9-1.16F Retentions

The Department, once in each month, shall cause an estimate in writing to be made by the Engineer. The estimate shall include the total amount of work done and acceptable materials furnished, provided the acceptable materials are listed as eligible for partial payment as materials in the special provisions and are furnished and delivered by the Contractor on the ground and not used or are furnished and stored for use on the contract, if the storage is within the State of California and the Contractor furnishes evidence satisfactory to the Engineer that the materials are stored subject to or under the control of the Department, to the time of the estimate, and the value thereof. The estimate shall also include any amounts payable for mobilization. Daily extra work reports furnished by the Contractor less than 5 calendar days, not including Saturdays, Sundays and legal holidays, before the preparation of the monthly progress estimate shall not be eligible for payment until the following month's estimate.

The amount of any material to be considered in making an estimate will in no case exceed the amount thereof which has been reported by the Contractor to the Engineer on State-furnished forms properly filled out and executed, including accompanying documentation as therein required, less the amount of the material incorporated in the work to the time of the estimate. Only materials to be incorporated in the work will be considered. The estimated value of the material established by the Engineer will in no case exceed the contract price for the item of work for which the material is furnished.

The Department shall retain 5 percent of the estimated value of the work done and 5 percent of the value of materials so estimated to have been furnished and delivered and unused or furnished and stored as aforesaid as part security for the fulfillment of the contract by the Contractor. The Department will not hold retention for mobilization or demobilization.

The Department shall pay monthly to the Contractor, while carrying on the work, the balance not retained, as aforesaid, after deducting therefrom all previous payments and all sums to be kept or retained under the provisions of the contract. No monthly estimate or payment shall be required to be made when, in the judgment of the Engineer, the work is not proceeding in accordance with the provisions of the contract.

No monthly estimate or payment shall be construed to be an acceptance of any defective work or improper materials.

Attention is directed to the prohibitions and penalties pertaining to unlicensed contractors as provided in Business and Professions Code Sections 7028.15(a) and 7031.

Add Section 9-1.23:

9-1.23 RESOLUTION OF CONTRACT CLAIMS

Public works contract claims of three hundred seventy-five thousand dollars ($375,000) or less which arise between a Contractor and a local public agency shall be resolved in accordance with the provisions of California Public Contract Code Sections 20104-20104.6, inclusive. In addition, California Public Contract Code Section 9204 requires that the procedure established therein shall apply to all claims (as therein defined) filed by a contractor in connection with a public works project. Accordingly, this contract expressly incorporates all of the terms and conditions of those statutory provisions, which are as follows:

California Public Contract Code Section 9204

(a) The Legislature finds and declares that it is in the best interests of the state and its citizens to ensure that all construction business performed on a public works project in the state that is complete and not in dispute is paid in full and in a timely manner.

(b) Notwithstanding any other law, including, but not limited to, Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2, Chapter 10 (commencing with Section 19100) of Part 2, and Article 1.5 (commencing with Section 20104) of Chapter 1 of Part 3, this section shall apply to any claim by a contractor in connection with a public works project.

(c) For purposes of this section:

(1) “Claim” means a separate demand by a contractor sent by registered mail or certified mail with return receipt requested, for one or more of the following:

(A) A time extension, including, without limitation, for relief from damages or penalties for delay assessed by a public entity under a contract for a public works project.

(B) Payment by the public entity of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public works project and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled.

(C) Payment of an amount that is disputed by the public entity.

(2) “Contractor” means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who has entered into a direct contract with a public entity for a public works project.

(3) (A) “Public entity” means, without limitation, except as provided in subparagraph (B), a state agency, department, office, division, bureau, board, or commission, the California State University, the University of California, a city, including a charter city, county, including a charter county, city and county, including a charter city and county, district, special district, public authority, political subdivision, public corporation, or nonprofit transit corporation wholly owned by a public agency and formed to carry out the purposes of the public agency.

(B) “Public entity” shall not include the following:

(i) The Department of Water Resources as to any project under the jurisdiction of that department.

(ii) The Department of Transportation as to any project under the jurisdiction of that department.

(iii) The Department of Parks and Recreation as to any project under the jurisdiction of that department.

(iv) The Department of Corrections and Rehabilitation with respect to any project under its jurisdiction pursuant to Chapter 11 (commencing with Section 7000) of Title 7 of Part 3 of the Penal Code.
(v) The Military Department as to any project under the jurisdiction of that department.
(vi) The Department of General Services as to all other projects.
(vii) The High-Speed Rail Authority.

(4) “Public works project” means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public improvement of any kind.
(5) “Subcontractor” means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who either is in direct contract with a contractor or is a lower tier subcontractor.

(d) (1) (A) Upon receipt of a claim pursuant to this section, the public entity to which the claim applies shall conduct a reasonable review of the claim and, within a period not to exceed 45 days, shall provide the claimant a written statement identifying what portion of the claim is disputed and what portion is undisputed. Upon receipt of a claim, a public entity and a contractor may, by mutual agreement, extend the time period provided in this subdivision.

(B) The claimant shall furnish reasonable documentation to support the claim.
(C) If the public entity needs approval from its governing body to provide the claimant a written statement identifying the disputed portion and the undisputed portion of the claim, and the governing body does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a claim sent by registered mail or certified mail, return receipt requested, the public entity shall have up to three days following the next duly publicly noticed meeting of the governing body after the 45-day period, or extension, expires to provide the claimant a written statement identifying the disputed portion and the undisputed portion.
(D) Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. If the public entity fails to issue a written statement, paragraph (3) shall apply.

(2) (A) If the claimant disputes the public entity’s written response, or if the public entity fails to respond to a claim issued pursuant to this section within the time prescribed, the claimant may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the public entity shall schedule a meet and confer conference within 30 days for settlement of the dispute.

(B) Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the public entity shall provide the claimant a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. Any disputed portion of the claim, as identified by the contractor in writing, shall be submitted to nonbinding mediation, with the public entity and the claimant sharing the associated costs equally. The public entity and claimant shall mutually agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside this section.
(C) For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by

issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.
(D) Unless otherwise agreed to by the public entity and the contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced.
(E) This section does not preclude a public entity from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program, if mediation under this section does not resolve the parties' dispute.

(3) Failure by the public entity to respond to a claim from a contractor within the time periods described in this subdivision or to otherwise meet the time requirements of this section shall result in the claim being deemed rejected in its entirety. A claim that is denied by reason of the public entity's failure to have responded to a claim, or its failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the claimant.

(4) Amounts not paid in a timely manner as required by this section shall bear interest at 7 percent per annum.

(5) If a subcontractor or a lower tier subcontractor lacks legal standing to assert a claim against a public entity because privity of contract does not exist, the contractor may present to the public entity a claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier subcontractor, that the contractor present a claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the claim be presented to the public entity shall furnish reasonable documentation to support the claim. Within 45 days of receipt of this written request, the contractor shall notify the subcontractor in writing as to whether the contractor presented the claim to the public entity and, if the original contractor did not present the claim, provide the subcontractor with a statement of the reasons for not having done so.

(e) The text of this section or a summary of it shall be set forth in the plans or specifications for any public works project that may give rise to a claim under this section.

(f) A waiver of the rights granted by this section is void and contrary to public policy, provided, however, that (1) upon receipt of a claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable; and (2) a public entity may prescribe reasonable change order, claim, and dispute resolution procedures and requirements in addition to the provisions of this section, so long as the contractual provisions do not conflict with or otherwise impair the timeframes and procedures set forth in this section.

(g) This section applies to contracts entered into on or after January 1, 2017.

(h) Nothing in this section shall impose liability upon a public entity that makes loans or grants available through a competitive application process, for the failure of an awardee to meet its contractual obligations.

(i) This section shall remain in effect only until January 1, 2027, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2027, deletes or extends that date.

California Public Contract Code Sections 20104 – 20104.6

Section 20104

(a)(1) This article applies to all public works claims of three hundred seventy-five thousand dollars ($375,000) or less which arise between a contractor and a local agency.

(2) This article shall not apply to any claims resulting from a contract between a contractor and a public agency when the public agency has elected to resolve any disputes pursuant to Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2.

(b)(1) "Public work" means "public works contract" as defined in Section 1101 but does not include any work or improvement contracted for by the state or the Regents of the University of California.

(2) "Claim" means a separate demand by the contractor for (A) a time extension, (B) payment of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public work and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to, or (C) an amount the payment of which is disputed by the local agency.

(c) The provisions of this article or a summary thereof shall be set forth in the plans or specifications for any work which may give rise to a claim under this article.

(d) This article applies only to contracts entered into on or after January 1, 1991.

Section 20104.2

For any claim subject to this article, the following requirements apply:

(a) The claim shall be in writing and include the documents necessary to substantiate the claim. Claims must be filed on or before the date of final payment. Nothing in this subdivision is intended to extend the time limit or supersede notice requirements otherwise provided by contract for the filing of claims.

(b) (1) For claims of less than fifty thousand dollars ($50,000), the local agency shall respond in writing to any written claim within 45 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the local agency may have against the claimant.

(2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the local agency and the claimant.

(3) The local agency's written response to the claim, as further documented, shall be submitted to the claimant within 15 days after receipt of the further documentation or within a period of time no greater than that taken by the claimant in producing the additional information, whichever is greater.

(c) (1) For claims of over fifty thousand dollars ($50,000) and less than or equal to three hundred seventy-five thousand dollars ($375,000), the local agency shall respond in writing to all written claims within 60 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the local agency may have against the claimant.

(2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the local agency and the claimant.

(3) The local agency's written response to the claim, as further documented, shall be submitted to the claimant within 30 days after receipt of the further documentation, or within a period of time no greater than that taken by the claimant in producing the additional information or requested documentation, whichever is greater.

(d) If the claimant disputes the local agency's written response, or the local agency fails to respond within the time prescribed, the claimant may so notify the local agency, in writing, either within 15 days of receipt of the local agency's response or within 15 days of the local agency's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the local agency shall schedule a meet and confer conference within 30 days for settlement of the dispute.

(e) Following the meet and confer conference, if the claim or any portion remains in dispute, the claimant may file a claim as provided in Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time the claimant submits his or her written claim pursuant to subdivision (a) until the time that claim is denied as a result of the meet and confer process, including any period of time utilized by the meet and confer process.

(f) This article does not apply to tort claims and nothing in this article is intended nor shall be construed to change the time periods for filing tort claims or actions specified by Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code.

Section 20104.4

The following procedures are established for all civil actions filed to resolve claims subject to this article:

(a) Within 60 days, but no earlier than 30 days, following the filing or responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by mutual stipulation of both parties. The mediation process shall provide for the selection within 15 days by both parties of a disinterested third person as mediator, shall be commenced within 30 days of the submittal, and shall be concluded within 15 days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court or by stipulation of both parties. If the parties fail to select a mediator within the 15-day period, any party may petition the court to appoint the mediator.

(b) (**1)** If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding Section 1141.11 of that code. The Civil Discovery Act (Title 4 (commencing with Section 2016.010) of Part 4 of the Code of Civil Procedure) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration.

(2) Notwithstanding any other provision of law, upon stipulation of the parties, arbitrators appointed for purposes of this article shall be experienced in construction law, and, upon stipulation of the parties, mediators and arbitrators shall be paid necessary and reasonable hourly rates of pay not to exceed their customary rate, and such fees and expenses shall be paid equally by the parties, except in the case of arbitration where the arbitrator, for good cause, determines a different division. In no event shall these fees or expenses be paid by state or county funds.

(3) In addition to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, any party who after receiving an arbitration award requests a trial de novo but

does not obtain a more favorable judgment shall, in addition to payment of costs and fees under that chapter, pay the attorney's fees of the other party arising out of the trial de novo.

(c) The court may, upon request by any party, order any witnesses to participate in the mediation or arbitration process.

Section 20104.6

(a) No local agency shall fail to pay money as to any portion of a claim which is undisputed except as otherwise provided in the contract.

(b) In any suit filed under Section 20104.4, the local agency shall pay interest at the legal rate on any arbitration award or judgment. The interest shall begin to accrue on the date the suit is filed in a court of law.

DIVISION II GENERAL CONSTRUCTION

10 GENERAL

Add to the end of Section 10-1.02C(2):

Protect any irrigation component to be relocated before performing any other construction activity in the area.

Replace *Reserved* in Section 10-1.02C(3) with:

Transplant any plant to be transplanted before performing any other construction activity in the area.

12 TEMPORARY TRAFFIC CONTROL

12-2.02 CONSTRUCTION PROJECT FUNDING SIGNS

12-2.02A GENERAL

Details for construction project funding signs are in *Project Details*.

Do not add information to a construction project funding identification sign unless authorized.

Keep construction project funding signs clean and in good repair at all times.

This project requires one (1) sign to be installed at the location directed by the Engineer.

12-2.02B MATERIALS

Provide Construction project funding signs, posts, and mounting hardware.

Construction project funding signs must be wood post signs complying with Section 82-3.

Sign panels for construction project funding signs must be framed, single sheet aluminum panels complying with Section 82-2 resistant to elements and graffities.

The size of the legend on construction project funding signs must be as described. Do not add any additional information unless authorized.

12-2.02C CONSTRUCTION

Provide and install the quantity of construction project funding signs shown on the Bid Item List at the locations designated by the Engineer before starting major work activities visible to highway users.

The sign must be able to resist for at least 4 years after construction completion.

12-2.02D PAYMENT

The Department pays you for Construction Funding Signs as follows:

1. 100 percent of the item upon installation of each sign

Replace the 3rd paragraph of Section 12-3.01C with:

If ordered, furnish and place additional temporary traffic control devices. This work is not change order work if:

1. Required to conform with your traffic control plan
2. Required to conform with the MUTCD
3. Necessary for public safety or convenience as determined by the Engineer
4. Required to perform staged construction shown on the plans

Replace the last paragraph of Section 12-3.03C with:

Moving plastic traffic drums from location to location if ordered after initial placement is not change order work if:

1. Required to conform with your traffic control plan
2. Required to conform with the MUTCD
3. Necessary for public safety or convenience as determined by the Engineer
4. Required to perform staged construction shown on the plans

Replace the last paragraph of Section 12-3.10C with:

Moving a barricade from location to location is change order work if ordered after initial placement of the barricade unless.

1. Required to conform with your traffic control plan
2. Required to conform with the MUTCD
3. Necessary for public safety or convenience as determined by the Engineer
4. Required to perform staged construction shown on the plans

Replace Section 12-3.11B(5)(b) with:

12-3.11B(5)(b) Construction Project Funding Identification Signs

Reserved

Replace the word "Department's" with the word "Caltrans" in the 1st paragraph of Section 12-3.20A(4)(a).

Replace the last paragraph of Section 12-3.20C(1) with:

If the Engineer orders a lateral move of temporary barrier system and repositioning is not shown, the lateral move is change order work unless:

1. Required to conform with your traffic control plan
2. Required to conform with the MUTCD
3. Necessary for public safety or convenience as determined by the Engineer
4. Required to perform staged construction shown on the plans

Replace the 2nd paragraph of Section 12-3.20C(2)(c) with:

Install K rail as shown in the project plans.

Replace the last paragraph of Section 12-3.31C with:

Moving portable flashing beacons from location to location if ordered after initial placement is change order work unless:

1. Required to conform with your traffic control plan
2. Required to conform with the MUTCD
3. Necessary for public safety or convenience as determined by the Engineer
4. Required to perform staged construction shown on the plans

Replace the 2nd paragraph of Section 12-3.35B(6) with:

Provide any software on a CD or other Engineer-authorized data-storage device to the Engineer.

Add before the 1st paragraph of Section 12-3.41A(1):

Section 12-3.41 is used when shown in the Bid Item List.

Replace Section 12-4.02A(3)(a) with:

12-4.02A(3)(a) General

The Contractor shall prepare and submit to the County Construction Engineer for approval, a traffic control system plan indicating the means and methods he will employ to institute and maintain traffic control for all phases of the work within the project. The traffic control system plan shall be submitted to the County Construction Engineer as early as possible, preferably **five (5) working days** prior to pre-construction meeting. The Engineer will require five (5) working days to review the initial submittal of the traffic control system plan and an additional five (5) working days for each successive review.

No work at the project site whatsoever, including preparatory work such as the installation of construction project funding signs, shall commence until the traffic control system plan has been approved in writing by the Engineer. In the event that the traffic control system plan is not submitted timely, the Engineer may issue a notice of commencement of contract time prior to approval of the traffic control system plan, and working days will begin to accrue against the allotted contract time.

Late submittal of the traffic control plan or revisions thereafter required, due to the inadequacy of the plan, shall not be accepted as justification for the delay in the start of the working days for the project.

It shall be the Contractor's responsibility to provide, install, maintain, and remove any and all detour signage and traffic control devices and to obtain all permits, including permits from Caltrans, as may be necessary to establish detours as part of the contractor's traffic control plan.

Traffic will not be allowed to be limited to one direction when construction activities are not actively in progress. Providing, installing, maintaining, and removing all traffic control, including portable changeable message signs if required, obtaining and complying with all permits, and providing all traffic control operations shall be the responsibility of the contractor, and no additional compensation will be allowed therefor.

Replace Section 12-4.02A(3)(b) with:

12-4.02A(3)(b) Closure Schedules

One-way traffic shall be controlled through the project in accordance with the California Manual MUTCD and Caltrans Standard Plans T-11 and T-13 entitled "Traffic Control System for Lane Closure on Multilane Conventional Highways" and "Traffic Control System for Lane Closure on Two Lane Conventional Highways," and these special provisions. Night closure will not be permitted.

When traffic is under one way control on unpaved areas, the cones shown along the centerline on the plan need not be placed.

Every Monday by noon, submit a closure schedule request for planned closures for the next week.

The next week is defined as Sunday at noon through the following Sunday at noon.

Submit a closure schedule request 5 days before the anticipated start of any job site activity that reduces:

1. Horizontal clearances of traveled ways, including shoulders, to 2 lanes or fewer due to activities such as temporary barrier placement and paving
2. Vertical clearances of traveled ways, including shoulders, due to activities such as pavement overlays, overhead sign installation, or falsework girder erection

Submit closure schedule changes, including additional closures, by noon at least 3 business days before a planned closure.

Cancel closure requests at least 48 hours before the start time of the closure.

The Department notifies you of unauthorized closures or closures that require coordination with other parties as a condition for authorization.

Replace Section 12-4.02A(3)(d) with:

12-4.02A(3)(d) Traffic Break Schedule

Not Used.

Replace Section 12-4.02C(1) with:

12-4.02C(1) General

Work that interferes with traffic is limited to the hours when closures are allowed.

Do not reduce an open traffic lane width to less than 10 feet. If traffic cones or delineators are used for temporary edge delineation, the side of the base of the cones or delineators nearest to traffic is considered the edge of the traveled way.

Discuss the contingency plan for any activity that could affect the closure schedule with the Engineer at least 5 business days before starting the activity requiring the plan.

The Engineer may reschedule a closure that was canceled due to unsuitable weather.

Traffic will be controlled by flagmen by eyesight, radio (walkie talkie) or baton. In the event these methods do not work satisfactorily, as determined by the Engineer, a pilot car will be required.

The Engineer may require a pilot car to be used during earthwork operations in preparation of the grading plane or other operations when the Contractor's operations cover an area beyond the line of sight, or beyond the range of radios or when the baton method does not function satisfactorily.

You may use automated flagger assistance devices to enhance the traffic control system for a lane closure on a two-lane convention highway, except if a bid item for automated flagger assistance devices is shown in the Bid Item List, the use of AFADs is required.

Do not use automated flagger assistance devices:

1. On multi-lane highways
2. As a substitute or a replacement for a temporary traffic control signal
3. If the devices impair access for pedestrians and bicycles, unless alternate access is provided
4. If the usable shoulder area is not wide enough to place a trailer mounted device
5. If the distance between the devices is more than 800 feet, except when each device is controlled by a separate operator and radio communication is available between the AFAD operators

Replace Section 12-4.02C(2) with:

12-4.02C(2) Not Used

Replace Section 12-4.02C(3) with:

12-4.02C(3) Closure Requirements and Charts

12-4.02C(3)(a) General

Where 2 or more lanes in the same direction, including the shoulders, are adjacent to the area where the work is being performed, close the adjacent lane under any of the following conditions:

1. Work is off the traveled way but within 6 feet of the edge of the traveled way, and the approach speed is greater than 45 mph
2. Work is off the traveled way but within 3 feet of the edge of the traveled way, and the approach speed is less than 45 mph

Closure of the adjacent traffic lane is not required during any of the following activities:

1. Work behind a barrier
2. Paving, grinding, or grooving
3. Installation, maintenance, or removal of traffic control devices except for temporary railing

12-4.02C(3)(b) - 12-4.02C(3)(n)

Reserved

12-4.02C(3)(o) Closure of Conventional County Roads

The type and location of signs, lights, flags, flagmen, and other traffic control and safety devices shall be in accordance with the current edition of the California Manual on Uniform Traffic Control Devices (MUTCD) issued by the State of California, Department of Transportation (Caltrans).

Allow public traffic to pass through construction at all times unless otherwise specified herein.

Provide access to properties abutting the project site at all times.

When directed by the Engineer, traffic shall be routed through the work under one-way control.

Under one-way reversing traffic control operations, public traffic may be stopped in one direction for periods not to exceed 10 minutes.

Lane closure is defined as the closure of a traffic lane or lanes within a single traffic control system.

The seal coats shall not be applied to more than one-half of the width to be sealed at time, and the remaining half width to be kept free of obstructions and open for use by public traffic until the seal coat first applied is ready for use by traffic.

Asphaltic emulsion, asphalt concrete and asphalt rejuvenating agent shall not be applied to more than one-half of the width to be capped at a time, the remaining half-width to be kept free of obstructions and open for use by public traffic until the asphalt concrete cap, first applied, is ready for use by traffic.

Personal vehicles of the Contractor's employees shall not be parked on the traveled way or shoulders including sections closed to public traffic.

Personal vehicles of the Contractor's employees shall not be parked within the right of way

The Contractor's equipment and materials shall not remain in a lane except when such lane is closed to traffic and the lane is being used for contract operations.
Valley gutters shall be constructed in one-half widths and the remaining one-half width shall be kept free from obstructions to allow local traffic and through traffic to pass.

12-4.02C(3)(p)–12-4.02C(3)(s) Reserved

Replace Section 12-4.02C(7)(d) with:

12-4.02C(7)(d) Reserved

Replace the word "Department's" with "Caltrans" in Section 12-4.02C(9)(a)(iv).

Replace Section 12-4.02C(9)(d) with:

12-4.02C(9)(d) Payment

You pay the cost of furnishing all flaggers, including transporting flaggers and furnishing stands and towers for flaggers to provide for the passage of traffic through the work as specified in Sections 7-1.03 and 7-1.04.

Add before the 1st paragraph of Section 12-4.02C(10):

Section 12-4.02C(10) is used when Pickup Truck Mounted Changeable Message Sign is shown in the Bid Item List.

Replace item 3.6.1 in the list in Section 12-4.02C(11)(a)(iii)(B) with:

Not Used

Replace item 5 in the list in Section 12-4.02C(11)(a)(iv)(C) with:

Not Used

Replace Section 12-4.02C(11)(d) with:

12-4.02C(11)(d) Payment

Full payment for conforming to the requirements of this section shall be considered to be included in the Traffic Control Plan item on the Bid Items List.

Replace Section 12-4.02C(14) with:

12-4.02C(14) Failure to Provide Traffic Control.

If you do not provide the traffic control and it becomes necessary for the Engineer to notify you of your duties according to the Standard Specifications and these special provisions, you will pay $200 per 15-minute period or portion thereof to the County for all the time required to acquire the traffic control, including pilot car.

Such payment shall commence at the time notice of the improper traffic control condition is given to you or your authorized representative by the Engineer and shall terminate when the condition is corrected. Such payment will be deducted from your payment.

In addition, when it is necessary for the Engineer to perform the work, you will pay the actual cost for the performance thereof. Such amount will be deducted from your payment. This will be in addition to any penalties imposed in these special provisions.

The provisions in this section will not relieve you from your responsibility to provide such additional devices or take such measures as may be necessary to comply with the provisions in Section 7-1.04, "Public Safety," of the Standard Specifications.

Replace Section 12-4.02D with:

12-4.02D Payment

The Department pays for change order work for a traffic control system by force account for increased traffic control and uses a force account analysis for decreased traffic control.

Traffic control system for lane closure is paid for as traffic control system. Flagging costs are paid for as specified in Section 12-1.04.

The requirements in Section 4-1.05 for payment adjustment do not apply to traffic control system.

Adjustments in compensation for traffic control system will be made for an increase or decrease in traffic control work if ordered.

A traffic control system required by change order work is paid for as a part of the change order work.

Full compensation for furnishing and operating the pilot car, (including driver, radios, and any other equipment and labor required) shall be considered as included in the contract lump sum price paid for traffic control system and no further payment will be made.

13 WATER POLLUTION CONTROL

Add to Section 13-1.01:

A Storm Water Pollution Prevention Plan (SWPPP) has been developed for this project. It can be found in the Project Details section of these special provisions. Refer to SWPPP prepared, Section 31 25 00 Erosion and Sedimentation Control and Section 13 of the Standard Specifications and Special provisions for implementation.

STATE WATER RESOURCES CONTROL BOARD (SWRCB) NOTICE OF INTENT FILING (NOI) FEE

Complete the NOI filing process started by the County on the SWRCB website using information available in the contract, field and website. The Engineer will link your plan to the project on the SWRCB website.

The SWRCB NOI bid item is specifically provided to reimburse Contractor for payment of NOI filing fee charged by the SWRCB and paid by the Contractor after the Contractor has completed the NOI filing process started by the County.

The amount paid will be the amount of the fee only. No payment will be made for overhead or processing costs. Full compensation for any overhead and processing costs will be considered to be included in the various items of work, and no separate compensation will be made therefor.

The provisions of Section 9-1.06 for increased or decreased quantities shall not apply to the "State Water Resources Control Board Notice of Intent" bid item.

The SWRCB website can be found at:

https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.xhtml

The dollar amount shown in the Proposal is an estimate only and shall be included in each bidder's proposal.

Replace the word "Department" with "Caltrans" where it occurs in Section 13-1.01A.

Replace the 1st paragraph of Section 13-1.01D(2) with:

13-1.01D(2) Regulatory Requirements

Comply with the discharge requirements in the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities; Order No. 2009-000 9-DWQ, CAS000002 (Construction General Permit) and any amendments thereto issued by the SWRCB. The Construction General Permit may be found at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Replace Section 13-1.01D(4)(b) with:

13-1.01D(4)(b) Qualifications

The WPC manager must:

1. Comply with the requirements provided in the Construction General Permit for:

1.1. QSP if the project requires a WPCP
1.2. QSD if the project requires a SWPPP

2. Complete the stormwater management training described at the Stormwater and Water Pollution Control Information link at the Caltrans Division of Construction website

Add between the 4th and 5th paragraphs of Section 13-3.01C(2)(a):

The Central Valley Regional Water Quality Control Board will review the authorized SWPPP.

Replace the 1st paragraph of Section 13-3.01C(2)(b)(iv) with:

If a sampling and analysis plan is required, submit a sampling and analysis plan that complies with the Caltrans *Construction Site Monitoring Program Guidance Manual*.

Add Section 13-3.01C(5):

13-3.01C(5) Annual Certification

Submit an annual certification of compliance as described in the Caltrans *Stormwater Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual* before July 15th of each year.

14 ENVIRONMENTAL STEWARDSHIP

Add to the end of Section 14-1.02:

An ESA exists on this project.

The project is located within the vicinity of a designated floodway and regulated streams by the Central Valley Flood Protection Board. These limits are outlined in the project plans as, “FEMA Flood Zone.” Work activities shall stay outside of the floodway/flood zone, the Kings River, and Hughes Creek. If necessary, it is the Contractor’s responsibility to retain a surveyor to delineate those boundaries.

General Water Quality Protection Measures:

1. Notify the Engineer immediately following any accidental discharge of a reportable quantity of a hazardous material, sewage, or an unknown material (Water Code, Section 13271 and Health and Safety Code, Section 25501).
2. Notify the Engineer immediately following a violation of compliance with a water quality standard.
3. Do not discharge materials that contain oil, grease, wax, or other materials that result in a visible film or coating in the floodway/flood zone, the Kings River, and Hughes Creek.
4. Do not discharge sediment or dust abatement chemicals into any surface waters during dust abatement activities.
5. Do not use dust abatement products or additives known to be detrimental to water quality or wildlife.
6. Keep a copy of your SWPPP at the project site.
7. Do not refuel equipment within 300 feet of the floodway/flood zone, Kings River, and Hughes Creek. If critical equipment must be refueled within 300 feet of the floodway/flood zone and waterway, spill prevention and countermeasures must be implemented to avoid spills.
8. Provide secondary containment including drip pans and or placement of absorbent material in refueling areas.
9. Do not store hazardous materials, pesticides, fuels, lubricants, oils, hydraulic fluids, or other construction related potentially hazardous substances within 300 feet of the floodway/flood zone, the Kings River, and Hughes Creek.
10. Remove all project waste from the site daily.
11. Clean construction equipment prior to arriving to and departing the site to reduce the spread of noxious weeds.
12. Protect all disturbed areas from washout and erosion.
13. Do not use netting material for sediment control.

14. Do not store stockpiled topsoil within 300 feet of the floodway/flood zone, the Kings River, and Hughes Creek without the approval of the Engineer. Erosion and sediment control measures must be implemented to protect the topsoil and surface waters.

Replace Section 14-2.03A with:

In the event that archaeological resources are discovered within or near construction limits during project activities, do not disturb the resources and immediately:

1. Stop all work within a 60-foot radius of the discovery
2. Secure the area
3. Notify the Engineer

The Department investigates the discovery. Do not move archaeological resources or take them from the job site. Do not resume work within the radius of discovery until authorized.

If ordered, furnish resources to assist in the investigation or recovery of archaeological resources. A qualified Archaeologist shall be retained to evaluate the findings. This work is change order work.

Add after the 3rd paragraph of Section 14-10.01:

Food scraps, paper wrappers, food containers, cans, bottles and all food related trash and litter must be removed from the project site at the end of each working day.

Replace the 8th paragraph of Section 14-10.01 with:

Furnish and use closed-lid trash containers in the job-site yard, field trailers, and locations where workers gather for lunch and breaks.

Replace Section 14-11.14A with:

Section 14-11.14 is applicable to all projects. Wood removed from guardrail, signs, or structures is considered treated wood waste.
Section 14-11.14 includes specifications for handling, storing, transporting, and disposing of treated wood waste. Manage treated wood waste under 22 CA Code of Regs Div 4.5 Ch 34.
If there is no bid item for Treated Wood Waste, payment for training, handling, storing, transporting, and disposing of treated wood waste therefor is considered to be included in the bid item for the removal of other items.

Add Section 14-12.04:

14-12.04 RELATIONS WITH SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT (SJVAPCD)

You are responsible for compliance with all applicable SJVAPCD regulations and requirements. This section is provided for your information, and nothing herein or elsewhere within these special provisions shall be construed as limiting your responsibility for complying with all applicable rules and regulations.

This project disturbs less than 3 acre of soil.

In accordance with SJVAPCD Regulation VIII – Fugitive PM10 Prohibitions: Rule 8021, an SJVAPCD approved dust control plan is NOT required for this project. However, you are required to notify the SJVAPCD prior to commencing construction operations, and you are responsible for compliance with all applicable rules and regulations of the SJVAPCD.

DIVISION III EARTHWORK AND LANDSCAPE

17 GENERAL

Replace the 4th paragraph in Section 17-2.03A with:

Clear and grub vegetation only within the excavation and embankment slope lines.

Replace the 1st sentence in the 2nd paragraph in Section 17-2.03B with:

Cut tree branches that extend over the roadway and hang within 20 feet of finished grade and as directed by the engineer.

Add to end of Section 17-2.03C:

Any trees with a trunk diameter greater than or equal to 4" will constitute as a "tree removal" and will have separate bid item. Any tree or shrub less than 4" shall be considered in the bid item for "clearing and grubbing".

19 EARTHWORK

Replace the first paragraph of Section 19-5.03B with:

Compact earthwork to a relative compaction of at least 95 percent for at least a depth of:

1. 0.5 foot below the grading plane for the width between the outer edges of shoulders on excavation and embankments smaller than 2.5 feet above original grade.
2. 2.5 feet below the finished grade for the width of the traveled way plus 3 feet on either side (6 feet wider) on embankments.

Add to the list in the first paragraph of Section 19-9.02:

1. Import Borrow
2. Native Soil

Add after the 5th paragraph of Section 19-9.02:

When native soil or import borrow is used, material shall be readily compactable, shall not contain deleterious materials, shall pass 100% through a 2-inch sieve, 20% to 40% passing the #200 sieve, a Plasticity Index less than 10, and shall provide a stable surface and uniform appearance as determined by the engineer.

20 LANDSCAPE

Replace Section 20-1.02B with:

20-1.02B Water

Make arrangements for supplying water. Water must be of a quality that promotes plant growth.

22 FINISHING ROADWAY

28 CONCRETE BASES

Add to the beginning of Section 28-1.01D(1):

Testing laboratories and testing equipment must comply with the Caltrans Independent Assurance Program.

Sample the base under California Test 125.

DIVISION V SURFACINGS AND PAVEMENTS

36 GENERAL

Replace Section 36-3 with:

36-3 PAVEMENT SMOOTHNESS

36-3.01 GENERAL

36-3.01A Summary

Section 36-3 includes specifications for measuring the smoothness of pavement surfaces.

36-3.01B Definitions

Reserved

36-3.01C Submittals

36-3.01C(1) General

Reserved

36-3.01C(2) Reserved

36-3.01C(3) Reserved

36-3.01C(4) Straightedge Measurements

Within 2 business days of measuring smoothness with a straightedge, submit a list of the areas requiring smoothness correction. Identify the areas by:

1. Location number
2. District-County-Route
3. Beginning station or post mile to the nearest 0.01 mile
4. For correction areas within a traffic lane:
   4.1. Lane direction, *NB, SB, EB*, or *WB*
   4.2. Lane number from left to right in the direction of travel
   4.3. Wheel path, *L* for left, *R* for right, or *B* for both
5. For correction areas not within a traffic lane:
   5.1. Identify the pavement area, such as shoulder, weigh station, or turnout
   5.2. Direction and distance from the centerline, *L* for left or *R* for right
6. Estimated size of correction area

36-3.01D Quality Assurance

36-3.01D(1) General

Reserved

36-3.01D(2) Reserved

36-3.01D(3) Quality Control

36-3.01D(3)(a) General

Reserved

36-3.01D(3)(b) Smoothness

36-3.01D(3)(b)(i) General

Test pavement smoothness using a 12-foot straightedge for the pavement at:

1. Traffic lanes less than 1,000 feet in length, including ramps, turn lanes, and acceleration and deceleration lanes
2. Areas within 15 feet of manholes
3. Shoulders
4. Weigh-in-motion areas
5. Miscellaneous areas such as medians, gore areas, turnouts, and maintenance pullouts
6. Any other areas selected by the Engineer

36-3.01D(3)(b)(ii) Reserved

36-3.01D(3)(b)(iii) Reserved

36-3.01D(4) Department Acceptance

The Department accepts pavement surfaces for smoothness based on compliance with the smoothness specifications for the type of pavement surface specified.

For areas that require pavement smoothness determined using a 12-foot straightedge, the pavement surface must not vary from the lower edge of the straightedge by more than:

1. 0.01 foot when the straightedge is laid parallel with the centerline
2. 0.02 foot when the straightedge is laid perpendicular to the centerline and extends from edge to edge of a traffic lane
3. 0.02 foot when the straightedge is laid within 24 feet of a pavement conform

36-3.02 MATERIALS

Not Used

36-3.03 CONSTRUCTION

Perform pavement smoothness testing in areas selected by the Engineer in the presence of the Engineer.

36-3.04 PAYMENT

Not Used

37 SEAL COATS

Replace the word "Department's" with "Caltrans" where it appears in the 1st paragraph of Section 37-1.01D(1).

Replace Item 1 in the list of Section 37-2.01A(3) with:

1. Samples for:
   1.1. Asphaltic emulsion chip seal, six 1-quart wide mouth plastic containers with screw top lid of asphaltic emulsion
   1.2. Polymer modified asphaltic emulsion chip seal, six 1-quart wide mouth plastic containers with screw top lid of polymer modified asphaltic emulsion
   1.3. Asphalt rubber binder chip seal, two 1-quart cans of base asphalt binder
   1.4. Asphalt rubber binder chip seal, five 1-quart cans of asphalt rubber binder

Replace Section 37-2.01A(4)(b)(ii) with:

37-2.01A(4)(b)(ii) Aggregate

All tests must be performed on uncoated aggregate except for film stripping which must be performed on precoated aggregate.

For aggregate, the authorized laboratory must perform sampling and testing at the specified frequency and location for the following quality characteristics:

Aggregate Quality Control Requirements

Quality characteristic	Test method	Minimum sampling and testing frequency	Location of sampling
Los Angeles Rattler loss (max, %) At 100 revolutions At 500 revolutions	California Test 211	1st day of production	See California Test 125
Percent of crushed particles Coarse aggregate (min, %) One-fractured face Two-fractured faces Fine aggregate (min, %) (Passing No. 4 sieve and retained on No. 8 sieve) One fractured face	AASHTO T 335	1st day of production	See California Test 125
Flat and elongated particles (max by weight at 3:1, %)	ASTM D4791	1st day of production	See California Test 125
Film stripping (max, %)	California Test 302	1st day of production	See California Test 125
Durability (min)	California Test 229	1st day of production	See California Test 125
Gradation (% passing)	California Test 202	2 per day	See California Test 125
Cleanness value (min)	California Test 227	2 per day	See California Test 125

Replace the 9th paragraph of Section 37-2.01A(4)(c) with:

If test results for the aggregate gradation do not comply with specifications, you may remove the chip seal represented by these tests or request that it remain in place with a payment deduction. The deduction is $1.75 per ton for the aggregate represented by the test results.

Replace the 3rd paragraph of Section 37-2.01B(3)(a) with:

The authorized laboratory must conduct the Vialit test using the proposed asphaltic emulsion or asphalt binder and aggregate for compliance with the requirements shown in the following table:

Add to the end of Section 37-2.01C(3):

Vegetation removal within the pavement and heavy soil removal is change order work.

Replace the 1st paragraph of Section 37-2.01C(4)(d)(iii) with:

Sweeping must be performed after the chip seal has set and there is no damage or dislodging of aggregate from the chip seal surface. In addition to previous sweeping, perform final sweeping immediately before opening any lane to public traffic, not controlled with pilot cars.

Replace the word "Department" with "Caltrans" in the 1st paragraph of Section 37-2.01B(3)(b).

Replace the 2nd paragraph of Section 37-2.03B(2) with:

A polymer modified asphaltic emulsion must be either Grade PMCRS-2 or PMCRS-2h.

Add to the end of Section 37-2.03B(3):

Aggregate for a polymer modified asphaltic emulsion chip seal must comply with the 3/8" gradation.

Replace item 1 in the list in the 1st paragraph of Section 37-3.01A(3) with:

1. Samples for:
   1.1. Asphaltic emulsion slurry seal, six 1-quart samples of asphaltic emulsion
   1.2. Polymer modified asphaltic emulsion slurry seal, six 1-quart samples of polymer modified asphaltic emulsion
   1.3. Micro-surfacing, two 1-quart samples of micro-surfacing emulsion

Add to Section 37-3.01B(2):

Aggregate for slurry seal must be Type II.

Add to the end of Section 37-3.01C(4):

Vegetation removal within the pavement and heavy soil removal is change order work.

Replace Section 37-3.02A(3) with:

37-3.02A(3) Submittals

Immediately after sampling, submit six 1-quart wide mouth plastic containers of asphaltic emulsion or polymer modified asphaltic emulsion taken in the presence of the Engineer. Samples must be submitted in insulated shipping containers.

Replace Section 37-3.02A(4)(b)(i) with:

37-3.02A(4)(b)(i) General

Take samples of asphaltic emulsion and polymer modified asphaltic emulsion from the tank truck at mid load or from a sampling tap or thief. Before taking samples, draw and dispose of 1 gallon. In the presence of the Engineer take two 1-quart samples in wide mouth plastic containers with lined, sealed lids for acceptance testing.

Replace Section 37-3.02B(2) with:

37-3.02B(2) Asphaltic Emulsions

Reserved

Replace item 1 in the list in Section 37-4.01A(3) with:

1. Four 1-quart samples of asphaltic emulsion that is uncut from the plant.

Add to Section 37-4.02A(1):

Use either CQS-1H or CSS-1H asphaltic emulsion for flush coat.

Replace Section 37-4.02A(3) with:

37-4.02A(3) Submittals

Immediately after sampling, submit four 1-quart plastic container of asphaltic emulsion taken in the presence of the Engineer. Samples must be submitted in insulated shipping container.

Replace 1st paragraph of Section 37-4.02A(4)(b)(ii) with:

Take two 1-quart samples from the plant that are uncut for Department acceptance testing.

Replace Section 37-4.03C(1) with:

Do not track asphaltic emulsion on existing pavement surfaces.

Apply sand immediately after applying asphaltic emulsions.

The sand moisture content is not more than the sand SSD (Saturated Surface Dry) plus one percent.

No tires are allowed on asphaltic emulsions (fog seal coat) before sand aggregate has been placed.

Spread sand aggregate with the chipping machine (self-propelled aggregate spreaders) as described in Section 37-2.01C(2) that spreads sand at a uniform rate over the full width of a traffic lane in a single application. Spread sand at a rate from 2 to 6 lb/sq yd. You determine the application rates for sand and the Engineer authorizes the application rate.

Replace the last paragraph of Section 37-5.01C with:

37-5.01C Submittals

Immediately after sampling, submit two 1-quart plastic containers of parking area seal taken in the presence of the Engineer. Samples must be submitted in insulated shipping containers.

Add to Section 37-6.02B:

Crack treatment material must be Type 2 for INLAND VALLEY and Type 5 for LOW and HIGH MOUNTAIN pavement regions.

Crack treatment must be **hot**-applied.

Delete the 3rd paragraph of Section 37-6.03

Add to Section 37-6.03:

Fill the crack overband not more than 3 inches wide.

39 ASPHALT CONCRETE

Replace the list in the second paragraph of Section 39-2.01A(1) with:

1. Type A HMA
2. Minor HMA

Add to the end of the list in Section 39-2.01A(2):

8. Driveways and driveway approaches

Replace the 1st sentence of Section 39-2.01A(3)(b)(i) with:

Except for the HMA to be used in miscellaneous areas, dikes, and berms, submit your proposed JMF for each type of HMA to be used.

Replace the 2nd paragraph of Section 39-2.01A(3)(b)(i) with:

The Contractor Hot Mix Asphalt Design Data form must show documentation on aggregate quality.

Replace the 3rd paragraph of Section 39-2.01A(3)(b)(i) with:

If you cannot submit a Department-verified or Caltrans-verified JMF on a Caltrans Hot Mix Asphalt Verification form dated within 24 months before HMA production, the Engineer verifies the JMF.

Replace the 1st paragraph of Section 39-2.01A(3)(c) with:

With your proposed JMF submittal, submit a QC plan for HMA.

Add after the 4th paragraph of Section 39-2.01A(3)(c):

The QC Plan must include action and suspension limits and details of corrective action to be taken if any process is outside of those limits. Suspension limits must not exceed specified acceptance criteria.

The QC plan must describe how test results will be submitted including times for sampling and testing for each quality characteristic.

Replace Section 39-2.01A(3)(d) with:

39-2.01A(3)(d) Test Results

If ordered, submit QC results within 3 business days of a request.

For mix design, JMF verification, production start-up, and each 10,000 tons, submit AASHTO T 283 and AASHTO T 324 (Modified) test results to the Engineer.

Submit all QC test results, except AASHTO T 283 and AASHTO T 324 (Modified), within 3 business days of a request. Submit AASHTO T 283 QC tests within 15 days of sampling.

For tests performed under AASHTO T 324 (Modified), submit test data and 1 tested sample set within 5 business days of sampling.

If coarse and fine durability index tests are required, submit test results within 2 business days of sampling.

If a tapered notched wedge is used, submit compaction test result values within 24 hours of testing.

Replace the 1st sentence of the 2nd paragraph of Section 39-2.01A(3)(f) with:

For each delivery of liquid antistrip to the HMA production plant, submit a 1 pt sample to the Engineer.

Replace the 1st sentence of the 3rd paragraph of Section 39-2.01A(3)(f) with:

At the end of each day's production shift, submit production data in electronic media.

Replace the 1st sentence in the last paragraph of Section 39-2.01A(3)(g) with:

Each day during lime treatment, submit the treatment data log on electronic media in tab delimited format.

Replace the 1st sentence in the last paragraph of Section 39-2.01A(3)(h) with:

At the end of each day's production shift, submit electronic media from the HMA plant process controller.

Replace Section 39-2.01A(4)(a) with:

39-2.01A(4)(a) General

Take samples under California Test 125. Reduce samples of HMA to testing size under AASHTO R47.

AASHTO T 324 (Modified) is AASHTO T 324 with the following parameters:

1. Target air voids must equal 7.0 ± 1.0 percent
2. Specimen height must be 60 ± 1 mm
3. Number of test specimens must be 4 to run 2 tests
4. Do not average the 2 test results
5. Test specimen must be a 150 mm gyratory compacted specimen
6. Test temperature must be set at:
   - 6.1. 113 ± 2 degrees F for PG 58
   - 6.2. 122 ± 2 degrees F for PG 64
   - 6.3. 131 ± 2 degrees F for PG 70 and above
7. Measurements for impression must be taken at every 100 passes along the total length of the sample
8. Inflection point is the number of wheel passes at the intersection of the creep slope and the stripping slope at maximum rut depth
9. Testing shut off must be set at 25,000 passes
10. Submersion time for samples must not exceed 4 hours

If a WMA technology is used, a technical representative for the WMA technology must attend the preconstruction meeting.

Replace item 2 in the list in the 2nd paragraph of Section 39-2.01A(4)(b) with:

2. Asphalt binder. Take at least four 1 qt samples. Each sample must be in a cylindrical-shaped can with an open top and friction lid. If the asphalt binder is modified or rubberized, the asphalt binder must be sampled with the components blended in the proportions to be used.

Add the following item to the list in the 5th paragraph of Section 39-2.01A(4)(b):

4. Voids in mineral aggregate on laboratory-produced HMA

Replace the word "Caltrans" with "Department" in the 10th paragraph of Section 39-2.01A(4)(b).

Replace item 2 in the list in the 1st paragraph of Section 39-2.01A(4)(d) with:

2. Asphalt binder. Take at least four 1 qt samples. Each sample must be in a cylindrical-shaped can with an open top and friction lid. If the asphalt binder is modified or rubberized, the asphalt binder must be sampled with the components blended in the proportions to be used.

Replace the word "Department's" with "Caltrans" in Section 39-2.01A(4)(f)(i).

Replace the word "Department's" with "Caltrans" in Section 39-2.01A(4)(f)(ii).

Add the following to the end of Section 39-2.01A(4)(h)(i):

You are not entitled to compensation for the suspension of work resulting from noncompliance with quality control requirements, including those identified in the QC Plan.

Replace the 2nd paragraph of Section 39-2.01A(4)(h)(v) with:

Within the first 750 tons produced on the 1st day of HMA production, in the Engineer's presence, and from the same production run, take samples of:

1. Aggregates. Coarse, fine, and supplemental fine aggregates must be taken from the combined cold-feed belt or the hot bins. If lime treatment is required, samples must be taken from individual stockpiles before lime treatment. Samples must be at least 120 lb. for each coarse aggregate, 80 lb. for each fine aggregate, and 10 lb. for each type of supplemental fines. For hot-bin samples, the Department combines these aggregate samples to verify the TV submitted on a Contractor Job Mix Formula Proposal form.
2. Asphalt binder. Take at least two 1 qt samples. Each sample must be in a cylindrical-shaped can with an open top and friction lid. If the asphalt binder is modified or rubberized, the asphalt binder must be sampled with the components blended in the proportions to be used.
3. RAP. Samples must be at least 50 lb. from each fractionated stockpile.
4. Plant-produced HMA. The HMA samples must be at least 250 lb.

Delete the 6th paragraph of Section 39-2.01A(4)(h)(v).

Replace Section 39-2.01A(4)(h)(vii) with:

39-2.01A(4)(h)(vii) RESERVED

Replace Section 39-2.01A(4)(i)(iii) with:

39-2.01A(4)(i)(iii) Pavement Smoothness

For HMA pavement within 3 feet from and parallel to the construction joint formed between curbs, gutters, or existing pavement, test pavement smoothness using a 12-foot straightedge.

Replace the word "Department" with "Caltrans" in the 2nd paragraph of Section 39-2.01A(4)(i)(iv).

Replace the word "Department" with "Caltrans" in the 4th paragraph of Section 39-2.01B(4)(c)(ii).

Replace the word "Department's" with "Caltrans'" where it occurs in Section 39-2.01B(8)(a).

Replace Section 39-2.01B(11) with:

39-2.01B(11) Miscellaneous Areas, Dikes, & Berms

For miscellaneous areas, dikes, and berms:

1. Use Minor HMA.
2. Choose the aggregate gradation from:
   2.1. 3/8-inch Type A HMA aggregate gradation
   2.2. 1/2-inch Type A HMA aggregate gradation
   2.3. dike mix aggregate gradation
3. Choose asphalt binder Grade PG 64-10, PG 64-16 or PG 70-10.
4. Minimum asphalt binder content must be:
   4.1. 6.40 percent for 3/8-inch Type A HMA aggregate gradation
   4.2. 5.70 percent for 1/2-inch Type A HMA aggregate gradation
   4.3. 6.00 percent for dike mix aggregate gradation

If you request and the Engineer authorizes, you may reduce the minimum asphalt binder content.

Aggregate gradation for dike mix must be within the TV limits for the specified sieve size shown in the following table:

Dike Mix Aggregate Gradation
(Percentage Passing)

Sieve size	Target value limit	Allowable tolerance
1/2"	100	--
3/8"	---	95 - 100
No. 4	73–77	TV ± 10
No. 8	58–63	TV ± 10
No. 30	29–34	TV ± 10
No. 200		0 - 14

For HMA used in miscellaneous areas, dikes, and berms, Sections 39-2.01A(3), 39-2.01A(4), 39-2.01B(2), 39-2.01B(4)(c), and 39-2.01B(5)–(10) do not apply.

Replace the 2nd paragraph of 39-2.01C(3)(g) with:

Before placing the interlayer or asphalt binder, clean the pavement of loose and extraneous material.

Replace Section 39-2.01C(4)(b) with:

39-2.01C(4)(b) Tapered Notched Wedge

Not used

Add the following after the last paragraph of Section 39-2.01C(5):

The test section:

1. Must not be less than 0.1 mile in length.
2. Must have a width equal to the width of the pavement and tapered edge to be paved in one pass during production.
3. Locations shall be proposed by the Contractor and approved by the Engineer.

The test section must be constructed with asphalt paver fitted with one of the following FHWA-approved tapered edge devices:

1. **"Shoulder Wedge Maker"** manufactured by Transtech Systems, Inc.,1594 State Street, Schenectady, NY 12304, Telephone 1-800-724-6306 or 518-370-5558

2. **"Advant-Edger"** manufactured by Advant-Edge Paving Equipment LLC, 33 Old Niskayuna Road, Loudonville, NY 12211, Telephone 814-422-3343

3. **"Ramp Champ"** manufactured by Advant-Edge Paving Equipment LLC, 33 Old Niskayuna Road, Loudonville, NY 12211, Telephone 814-422-3343

4. **"SafeTSlope"** manufactured by Troxler Electronic Laboratories, Inc., 3008 E. Cornwallis Rd. Research Triangle Park, NC 27709, Telephone 877-876-9537

Comply with manufacturer's instructions for attaching the device(s) to the paver. The Engineer accepts the use of selected tapered edge device when edge shape and compaction of the test section are in compliance with plans and specifications. No further paving operations which include the construction of the tapered edge shall commence unless means and methods for constructing the tapered edge are approved by the Engineer.

Add to the end of Section 39-2.01C(7):

New paving shall tie smoothly into previously resurfaced mats, existing pavement and to private drives. Place additional HMA along the pavement's edge to conform to private drives and private road connections as shown in the Project Details.

Hand rake, if necessary, and compact the additional HMA to form a smooth conform taper.

Feather down the HMA to zero thickness at the approximate rate of 20 feet per 0.08-foot thickness at all match lines across the travel lanes including the beginning and end of construction and at all intersections unless otherwise shown or described in the Project Details and as directed by the Engineer.

Replace Section 39-2.01C(9) with:

39-2.01C(9) Miscellaneous Areas, Dikes, & Berms

Prepare the area to receive HMA for miscellaneous areas, dikes, and berms, including excavation and backfill as needed.

Spread the HMA in miscellaneous areas in 1 layer and compact to the specified lines and grades.

In median areas adjacent to slotted median drains, each layer of HMA must not exceed 0.20 foot maximum compacted thickness.

The finished surface must be:

1. Textured uniformly
2. Compacted firmly
3. Without depressions, humps, and irregularities

Add to the list in the 1st paragraph of Section 39-2.01C(15)(b):

5. HMA overlays over existing pavement

Replace the 2nd paragraph in Section 39-2.01D with:

Except for when a bid item for tack coat is specified, payment for tack coat is included in the payment for hot mix asphalt.

Replace the 5th paragraph in Section 39-2.01D with:

The payment quantity for place hot mix asphalt dike or berm of the type shown on the Bid Item List is the length measured from end to end. Payment for the HMA used to construct the dike or berm is not included in the payment for place hot mix asphalt dike or berm.

Replace Section 39-2.02A(4)(b)(ii) with:

39-2.02A(4)(b)(ii) Aggregates

Test the quality characteristics of aggregates under the test methods and frequencies shown in the following table:

Aggregate Testing Frequencies

Quality characteristic	Test method	Minimum testing frequency
Gradation[a]	AASHTO T 27	1 per 750 tons and any remaining part
Sand equivalent[b, c]	AASHTO T 176	
Moisture content[d]	AASHTO T 255	
Crushed particles	AASHTO T 335	1 per 10,000 tons or 2 per project whichever is greater
Los Angeles Rattler	AASHTO T 96	
Flat and elongated particles	ASTM D4791	
Fine aggregate angularity	AASHTO T 304 Method A	
Coarse durability index	AASHTO T 210	1 per 3,000 or 1 per paving day, whichever is greater
Fine durability index	AASHTO T 210	

[a]If RAP is used, test the combined aggregate gradation under California Test 384.
[b]Reported value must be the average of 3 tests from a single sample.
[c]Use of a sand reading indicator is required as shown in AASHTO T 176, Figure 1. Sections 4.7, "Manual Shaker," 7.1.2, "Alternate Method No. 2," and 8.4.3, "Hand Method," do not apply. Prepare the stock solution as specified in Section 4.8.1, "Stock solution with formaldehyde," except omit the addition of formaldehyde.
[d]Test at continuous mixing plants only. If RAP is used, test the RAP moisture content at continuous mixing plant and batch mixing plant.

For lime treated aggregate, test aggregate before treatment and test for gradation and moisture content during HMA production.

Replace Section 39-2.02A(4)(b)(iii) with:

39-2.02A(4)(b)(iii) Reclaimed Asphalt Pavement

Sample and test processed RAP at a minimum frequency of 1 sample per 1,000 tons with a minimum of 6 samples per fractionated stockpile. If the fractionated stockpile has not been augmented, the 3 RAP samples taken and tested for mix design can be part of this minimum sample requirement. If a processed RAP stockpile is augmented, sample and test processed RAP quality characteristics at a minimum frequency of 1 sample per 500 tons of augmented RAP.

The combined RAP sample when tested under AASHTO T 164 must be within ±2.00 percent of the average asphalt binder content reported on page 4 of your Contractor Hot Mix Asphalt Design Data form. If a new processed RAP stockpile is required, the average binder content of the new processed RAP stockpile must be within ±2.00 percent of the average binder reported on page 4 of your Contractor Hot Mix Asphalt Design Data form.

The combined RAP sample when tested under AASHTO T 209 must be within ±0.06 of the average maximum specific gravity reported on page 4 of your Contractor Hot Mix Asphalt Design Data form.

During Type A HMA production, sample RAP twice daily and perform QC testing for:

1. Aggregate gradation at least once a day under California Test 384
2. Moisture content at least twice a day

Replace Section 39-2.02A(4)(b)(ix) with:

39-2.02A(4)(b)(ix) Type A Hot Mix Asphalt Production

Test the quality characteristics of Type A HMA under the test methods and frequencies shown in the following table:

Type A HMA Production Testing Frequencies

Quality characteristic	Test method	Minimum testing frequency
Asphalt binder content	AASHTO T 308, Method A	1 per 750 tons and any remaining part
HMA moisture content	AASHTO T 329	1 per 2,500 tons but not less than 1 per paving day
Air voids content	AASHTO T 269	1 per 4,000 tons or 2 every 5 paving days, whichever is greater
Voids in mineral aggregate	MS-2 Asphalt Mixture Volumetrics	1 per 10,000 tons or 2 per project whichever is greater
Dust proportion	MS-2 Asphalt Mixture Volumetrics	
Hamburg wheel track	California Test 389	1 per 10,000 tons or 1 per project, whichever is greater
Moisture susceptibility	AASHTO T 283	3 per 250 tons or 3 per paving day, whichever is greater

Replace the 1st table in the 1st paragraph of Section 39-2.02A(4)(e) with:

39-2.02A(4)(e) Department Acceptance

The Department accepts Type A HMA based on compliance with:

1. Aggregate quality requirements shown in the following table:

Aggregate Quality

Quality characteristic	Test method	Requirement
Aggregate gradation[a]	AASHTO T 27	JMF ± Tolerance
Percent of crushed particles Coarse aggregate (min, %) One-fractured face Two-fractured faces Fine aggregate (min, %) (Passing No. 4 sieve and retained on No. 8 sieve.) One-fractured face	AASHTO T 335	 95 90 70
Los Angeles Rattler (max, %) Loss at 100 Rev. Loss at 500 Rev.	AASHTO T 96	 12 40
Sand equivalent (min.)[b, c]	AASHTO T 176	47
Flat and elongated particles (max, % by weight at 5:1)	ASTM D4791	10
Fine aggregate angularity (min, %)[d]	AASHTO T 304, Method A	45
Coarse durability index (D_c, min)	AASHTO T 210	65
Fine durability index (D_f, min)	AASHTO T 210	50

[a]The Engineer determines combined aggregate gradations containing RAP under California Test 384.
[b]Reported value must be the average of 3 tests from a single sample.
[c]Use of a sand reading indicator is required as shown in AASHTO T 176, Figure 1. Sections 4.7, "Manual Shaker," 7.1.2, "Alternate Method No. 2," 8.4.2 Manual Shaker Method, and 8.4.3, "Hand Method," do not apply. Prepare the stock solution as specified in Section 4.8.1, "Stock solution with formaldehyde," except omit the addition of formaldehyde.
[d]The Engineer waives this specification if HMA contains 10 percent or less of nonmanufactured sand by weight of total aggregate. Manufactured sand is fine aggregate produced by crushing rock or gravel.

Replace the 1st sentence in the 2nd paragraph of Section 39-2.02B(2) with:

For Type A HMA mixtures using RAP, the maximum allowed binder replacement is 25.0 percent.

Replace Section 39-2.02B(3) with:

39-2.02B(3) Asphalt Binder

The grade of asphalt binder for Type A HMA must be PG 64-10.

Replace Section 39-2.02B(4)(a) with:

39-2.02B(4)(a) General

Before the addition of asphalt binder and lime treatment, the aggregates must comply with the requirements shown in the following table:

Aggregate Quality

Quality characteristic	Test method	Requirement
Percent of crushed particles: Coarse aggregate (min, %) One-fractured face Two-fractured faces Fine aggregate (min, %) (Passing No. 4 sieve and retained on No. 8 sieve.) One-fractured face	AASHTO T 335	 95 90 70
Los Angeles Rattler (max, %) Loss at 100 Rev. Loss at 500 Rev.	AASHTO T 96	 12 40
Sand equivalent (min)[a]	AASHTO T 176	47
Flat and elongated particles (max, % by weight at 5:1)	ASTM D4791	10
Fine aggregate angularity (min, %)[b]	AASHTO T 304, Method A	45
Coarse durability index (Dc, min)	AASHTO T 210	65
Fine durability index (Df, min)	AASHTO T 210	50

[a]The reported value must be the average of 3 tests from a single sample. Use of a sand reading indicator is required as shown in AASHTO T 176, Figure 1. Sections 4.7, "Manual Shaker," 7.1.2, "Alternate Method No. 2," 8.4.2 Manual Shaker Method, and 8.4.3, "Hand Method," do not apply. Prepare the stock solution as specified in Section 4.8.1, "Stock solution with formaldehyde," except omit the addition of formaldehyde.

[b]The Engineer waives this specification if the Type A HMA contains 10 percent or less of nonmanufactured sand by weight of total aggregate. Manufactured sand is fine aggregate produced by crushing rock or gravel.

Replace Section 39-2.02B(5) with:

39-2.02B(5) Reclaimed Asphalt Pavement

You may substitute RAP for part of the virgin aggregate in a quantity up to 15 percent of the aggregate blend.

Provide enough space at your plant for complying with all RAP handling requirements. Provide a clean, graded base, well drained area for stockpiles.

If RAP is from multiple sources, blend the RAP thoroughly and completely before fractionating.

For RAP substitution of 15 percent of the aggregate blend or less, fractionation is not required.

Isolate the processed RAP stockpiles from other materials. Store processed RAP in conical or longitudinal stockpiles. Processed RAP must not be agglomerated or be allowed to congeal in large stockpiles.

Replace Section 39-2.02B(11) with:

39-2.02B(11) Type A Hot Mix Asphalt Production

If RAP is used, the asphalt plant must automatically adjust the virgin asphalt binder to account for RAP percentage and RAP binder.

During production, you may adjust hot- or cold-feed proportion controls for virgin aggregate and RAP. RAP must be within ±3 of RAP percentage described in your Contractor Job Mix Formula Proposal form without exceeding 15 percent.

Add to the beginning of Section 39-2.02C:

Place Type A HMA in lifts if shown in the project details.

Replace Section 39-3.02C with:

Where replace asphalt concrete surfacing is shown, remove the asphalt concrete surfacing and, if necessary, base to a depth of 6 inches below the grade of the existing surfacing and replace with HMA. The Engineer determines the exact limits of asphalt concrete surfacing to be replaced.

The width of each removal shall be a minimum of four feet wide or as determined by the Engineer.

Use cold planed material for shoulder backing inside the project limits, as per these specifications and as directed by the Engineer.

Replace asphalt concrete in a lane before the lane is specified to be opened to traffic.

Before removing asphalt concrete, outline the replacement area and cut neat lines with a saw or grind to a depth of 6 inches below the grade of the existing surfacing. Do not damage any asphalt concrete and base remaining in place.

If you excavate the base beyond the specified plane, replace it with HMA.

Do not use a material transfer vehicle for replacing asphalt concrete surfacing.

Before placing HMA, apply a tack coat as specified in Section 39-2.01C(3)(f).

Place HMA using method compaction as specified in Section 39-2.01C(2)(c).

The contract price paid per unit shown on the Bid Item List for Replace Asphalt Concrete Pavement shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in repairing pavement, complete in place, including disposal of removed material, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

The quantity of Replace Asphalt Concrete Pavement to be paid for will be the actual volume repaired.

Replace Section 39-3.03 with:

39-3.03 REMOVE ASPHALT CONCRETE DIKES & BERMS

39-3.03A General

Section 39-3.03 applies to removing asphalt concrete dikes and berms outside the limits of excavation.

39-3.03B Materials

Not Used

39-3.03C Construction

Reserved

39-3.03D Payment

Not Used

DIVISION VIII MISCELLANEOUS CONSTRUCTION

78 INCIDENTAL CONSTRUCTION

Add to the end of Section 78-2.01:

Damaged or destroyed survey monuments shall be replaced with new survey monuments.

Survey monuments shall be constructed or adjusted, as applicable, in accordance with Standard Drawing A-74 Type D.

Survey control for the reestablishment of survey monuments will be provided by the Department.

DIVISION IX TRAFFIC CONTROL DEVICES

82 SIGNS AND MARKERS

Replace the word "Department's" with "Caltrans" in the 2nd paragraph of Section 82-1.01.

Replace Item 1 of the 2nd paragraph of Section 82-2.02A with:

1. Phrase *Property of The County of Fresno*

Add to Section 82-2.02B:

Signs must be 0.080 inch thick aluminum alloy and street name signs must be 0.125 inch thick alloy faced on both sides.

Replace the 2nd paragraph of Section 82-2.02C with:

Reflective sheeting on all signs shall be 3M Diamond Grade DG3 Series 4000 or equal and must meet ASTM Type XI specifications.

Add to Section 82-2.02D:

All signs must have the 3M 1160 graffiti resistant clear overlay film or equal.

Replace Section 82-2.04 with:

82-2.04 PAYMENT

Not Used

Add to the end of Section 82-3.02A:

All new roadside signs must be mounted to steel square posts.

Add to the end of Section 82-3.02B:

All post for traffic signs must be 2"X2"X10' square by 14 gauge steel.

Welded Anchor (2 ¼"X2 ¼"X30") and sleeve (2 ½"X2 ½"X18") shell be used as a base to anchor post in the ground. Hole size and placement must be the same as the metal post.

All mounting hardware shall be either galvanized or stainless steel. Banding shall be 3/4 inch wide stainless steel with flare leg sign brackets. Hose clamps are not permitted. All signs shall be mounted using 3/8" aluminum drive rivets. Nuts and bolts are not permitted.

Replace the 1st paragraph of Section 82-3.02D with:

Furnish a laminated wood box post with an attached metal cap at the top of each post.

Replace the last paragraph of Section 82-3.04 with:

Full compensation for furnishing sign panels is included in the bid item price per each Roadside Sign - One Post and Roadside Sign - Two Post. One or more sign panels furnished and installed on a single post will be counted as (1) one Roadside Sign - One Post. One or more sign panels furnished and installed on two posts will be counted as (1) one Roadside Sign - Two Post.

DIVISION XI MATERIALS

90 CONCRETE

Replace the 1st sentence of the 3rd paragraph of Section 90-1.01D(3) with:

Shrinkage test data authorized by the Department or Caltrans no more than 3 years before the 1st day of the Contract is authorized for entire Contract.

Add to the end of item 3.3 in the list in the 7th paragraph of Section 90-1.02G(3):

Max.

Replace the word "Department" with "Caltrans" in the 2nd paragraph of Section 90-2.02E.

Replace the 3rd sentence of Item 3 of the list in the 3rd paragraph of Section 90-4.02 with:

Test data authorized by the Department or Caltrans no more than 3 years before the 1st day of the Contract is authorized for the entire Contract.

92 ASPHALT BINDERS

Replace the word "Department" with "Caltrans" in the 1st sentence of Section 92-1.01D(2).

Replace the word "Department" with "Caltrans" in footnote 'b' of the 1st table in Section 92-1.02B.

Replace the word "Department" with "Caltrans" in the 5th paragraph of Section 92-1.02B.

94 ASPHALTIC EMULSIONS

Replace Section 94-1.02E with:

94-1.02E Cationic Emulsified recycling Agent

Not Used

Replace Section 94-1.02G with:

94-1.02G Bonded Wearing Course Asphaltic Emulsions

Not Used

Replace Section 94-1.02H with:

94-1.02H Rapid Setting Polymer Modified Rejuvenating Asphaltic Emulsions

Not Used

Replace Section 94-1.02K with:

94-1.02K Micro-Surfacing Emulsions

Not Used

COUNTY OF FRESNO

DEPARTMENT OF PUBLIC WORKS AND PLANNING

TECHNICAL SPECIFICATIONS FOR

CHOINUMNI PARK IMPROVEMENTS

Prepared by:
A&M Consulting Engineers

February 2025

COUNTY OF FRESNO
DEPARTMENT OF PUBLIC
WORKS AND PLANNING

CHOINUMNI PARK IMPROVEMENTS
TECHNICAL SPECIFICATIONS
DIVISIONS AND SECTIONS

PROJECT MANUAL TABLE OF CONTENTS

GENERAL REQUIREMENTS

DIVISION 01:	GENERAL INFORMATION
01 10 00	Summary
01 25 00	Substitution Procedures
01 71 13	Mobilization, Site Maintenance, Demobilization
01 31 00	Project Management and Coordination
01 33 00	Submittals Procedures
01 40 00	Quality Requirements
01 50 00	Temporary Facilities and Controls
01 56 39	Temporary Tree and Plant Protection
01 73 00	Execution
01 74 19	Construction Waste Management and Disposal
01 77 00	Closeout Procedures
01 78 39	Project Record Documents
DIVISION 02:	EXISTING CONDITIONS
02 41 13	Site Demolition
02 41 14	Paving Removal
DIVISION 03:	CONCRETE REINFORCING
03 20 00	Reinforcement Bars
03 30 00	Cast-in-Place Concrete
DIVISION 10:	OTHER SPECIALTIES
10 73 60	Site Shelters
DIVISION 12:	FURNISHINGS
12 93 00	Site Elements
12 93 43	Site Furnishings

DIVISION 13:	SPECIAL CONSTRUCTION
13 00 00	Prefabricated Structures
DIVISION 26:	EXTERIOR IMPROVEMENTS
26 00 00	Electrical General Requirements
26 50 00	Basic Electrical Materials and Methods
26 56 00	Lighting Fixtures
DIVISION 31:	EARTHWORK
31 10 00	Site Clearing
31 22 00	Grading
31 23 02	Excavation and Fill for Utilities
31 23 04	Excavation and Fill for Structures
31 25 00	Erosion and Sedimentation Controls
DIVISION 32:	EXTERIOR IMPROVEMENTS
32 13 13	Site Concrete Work
32 15 40	Stabilized Natural Pavement
DIVISION 33:	UTILITIES
33 05 28	Underground Utilities Marking
33 10 00	Site Water Distribution System
33 30 00	Septic Sewage System
DIVISION 34:	BID ITEM DESCRIPTIONS
34 00 00	Bid Item Descriptions

Note:

A Geotechnical report performed on-site in 2003 has been incorporated as supplemental information only. This information is for the contractor's information only. This is not to be considered to be part of the contract documents and shall have no bearing whatsoever on the interpretation of the standard specifications, the standard plans, the special provisions, technical specifications nor shall they have any bearing whatsoever on the interpretation of the other publications referenced therein.

COUNTY OF FRESNO
DEPARTMENT OF PUBLIC
WORKS AND PLANNING

CHOINUMNI PARK IMPROVEMENTS
TECHNICAL SPECIFICATIONS
DIVISIONS AND SECTIONS

Prepared by Certification:

In accordance with the provisions of Section 6735 of the Business and Professions Code of the State of California, these specifications have been prepared by or under the direction of the following Civil Engineer, licensed in the State of California.

A&M CONSULTING ENGINEERS, INC.
220 NORTH LOCUST STREET
VISALIA, CA 93291

559-429-4747

SECTION 01 10 00
SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Work required but not shown.
4. Governing documents, codes, and standards.
5. Conflicts/Clarifications
6. Access to site.
7. Work restrictions.
8. Specification and drawing conventions.

1.3 PROJECT INFORMATION

A. Project Identification: Choinumni Park

1. Project Location: 26501 Pine Flat Rd, Sanger, CA 93657

B. Owner:

1. County of Fresno
2. Public Works and Planning Director, Steven E. White.

C. Project Engineer:

1. A&M Consulting Engineers
   Orfil Muniz, PE
   220 North Locust Street
   Visalia, CA 93291

1.4 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work of Project is defined by the Contract Documents and consists of the following:

1. Expansion and construction of improvements for park:

a. Drainage & Grading
b. Concrete Paving
c. Stabilized DG Surfacing
d. Site Lighting
e. Site Furnishings
f. Soil Preparation/Finish Grading
g. Prefabricated Restroom
h. Nature Playground
i. Pavilions
j. Sports Complex

B. Type of Contract:

1. Project will be constructed under a single prime contract.

1.5 WORK REQUIRED BUT NOT SHOWN

A. The following items not shown on the drawings and/or described in the specifications shall be done by the Contractor and are included in the General Scope of the Work:

1. Contractor shall coordinate locations of all piping, electrical work and other items required to be installed in overhead, wall or room spaces. Carefully study all drawings, and request permission for sleeves, cutouts, etc., wherever required for proper installation and clearances.
2. Provide drawings showing vertical sections through building wherever required to assure that overhead clearances will not be impaired. These requirements shall apply both to subcontracted and assigned work. Impairment of clearances in equipment rooms and similar spaces will not be permitted.
3. Provide coordination drawings, plans and sections as necessary, showing the relationships between the structure and the systems to be installed. Ensure routing of the services is coordinated and that the routings are not in conflict with each other.

1.6 GOVERNING DOCUMENTS, CODES, AND STANDARDS

A. All work shall be done in strict accordance with:

1. Permits as may be required by law
2. Addenda.
3. Special Provisions Sections 1 through 14.
4. Technical Specifications.
5. Special Provisions Section 14 through 92.
6. Plans.

7. General Requirements, Division 1.
8. Revised Standard Specifications.
9. State Standard Specifications.
10. Reference Documents.

1.7 CONFLICTS/CLARIFICATIONS

A. Contract Drawings and Specifications

1. Relationship of Drawings and Specifications:

a. The Drawings and Specifications taken together are the Contract Documents for this project. In the case of a discrepancy between the two, the more stringent will apply.
b. The Drawings and Specifications are meant to be supplementary and complementary to each other.

1) That which is shown on the Drawings but not shown in the Specifications shall be provided the same as if shown in both places and to the same standard of quality as for similar items.
2) That which is shown in the Specifications but not shown on the Drawings shall be provided the same as if shown in both places and to the same extent as for similar items.
3) Drawings show extent, location, dimension, relationship among various parts, and quantity of items.
4) Specifications show quality, trade names, generic names and workmanship standards.

2. Specifications:

a. The Specifications consist of several parts, which are intended to complement each other so that when taken together they provide the complete project requirements.
b. Specifications are of the abbreviated type and include incomplete sentences; all instructions are directed to the Contractor even though such phrases as “the Contractor shall,” or “shall be done by the Contractor” have been omitted.
c. Terms such as “directed,” “required,” “selected,” “permitted,” “approved,” “acceptable,” “satisfactory,” and the like mean by the Engineer, unless otherwise indicated.
d. Terms such as “shown,” “indicated,” “detailed,” and the like mean upon the Drawings.
e. The terms “provide” or “furnish” mean complete and in place.
f. The Scope paragraph, or similar paragraphs that describe the work, in each Section is intended to serve as an index of those items specified within the Section, as a locator for those items which are similar or are interfaces as specified elsewhere, and as a reminder of the inclusion of requirements of all documents; the index may not be complete; all products, equipment and labor necessary for a complete, safe and operating project are implied if not fully

mentioned.

B. See also **GENERAL PROVISIONS** of the Special Provisions for additional information and requirements.

1.8 ACCESS TO SITE

A. General: Contractor shall have full use of Project site for construction operations during construction period. Contractor's use of Project site is limited only by Owner's right to perform work or to retain other contractors on portions of Project.

B. Use of Site: Limit use of Project site to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

1. Driveways, Walkways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.

a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

1.9 WORK RESTRICTIONS

A. Work Restrictions, General: Comply with restrictions on construction operations.

1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.

B. On-Site Work Hours: Refer to Section 8-1.01A of the Special Provisions

C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:

1. Notify Engineer not less than two days in advance of proposed utility interruptions.
2. Obtain Engineer’s written permission before proceeding with utility interruptions.

D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Engineer.

1. Notify Engineer & adjacent residents not less than two days in advance of proposed disruptive operations.
2. Obtain Engineer’s written permission before proceeding with disruptive operations.

E. Employee Screening: Comply with Owner's requirements for drug and background screening of Contractor personnel working on Project site.

1. Maintain list of approved screened personnel with Owner's representative.

1.10 SPECIFICATION AND DRAWING CONVENTIONS

A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.

B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01 25 00 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

B. Section 6-1.05 of the Special Provisions

C. General Provisions of the Contract Section 1-1.3, EQUALS AND APPROVALS and Section 4-1.6, TRADE NAMES OR EQUALS apply to this section with regard to substitutions made after Notice to Proceed.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for substitutions.

1.3 DEFINITIONS

A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor. Unless substitution is expressly precluded in the Special Provisions, a reference to a specific brand or trade name establishes a quality standard and is not intended to limit competition. Unless the Department has made a public interest finding expressly authorizing sole source procurement of a particular item, you may use a product that is equal to or better than the specified brand or trade name if authorized.

1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer an advantage to Contractor or Owner.

B. Action Submittals: Written and graphic information and physical samples that require Engineer's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."

C. Informational Submittals: Written and graphic information and physical samples that do not require Engineer's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."

D. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal

and external users are able to access files.

E. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.4 ACTION SUBMITTALS

A. Substitution Requests: Submit PDF copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Substitution Request Form: Use CSI Form 13.1A.
2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:

a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
b. Coordination information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
e. Samples, where applicable or requested.
f. Certificates and qualification data, where applicable or requested.
g. List of similar installations for completed projects with project names and addresses and names and addresses of Engineers and owners.
h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
k. Cost information, including a proposal of change, if any, in the Contract Sum.
l. Contractor's certification that proposed substitution complies with

requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.

m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.

3. Engineer's Action: If necessary, Engineer will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Engineer will notify Contractor through County of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.

a. Forms of Acceptance: Change Order, Construction Change Directive, or Engineer's Supplemental Instructions for minor changes in the Work.
b. Use product specified if Engineer does not issue a decision on use of a proposed substitution within time allocated.

1.5 QUALITY ASSURANCE

A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

1.6 PROCEDURES

A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals. Request must allow a minimum of 30 days for review.

1. Conditions: Engineer will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Engineer will return requests without action, except to record noncompliance with these requirements:
   a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
   b. Requested substitution is consistent with Contract Award.
   c. Requested substitution provides sustainable design characteristics that specified product provided.
   d. Substitution request is fully documented and properly submitted.

e. Requested substitution will not delay Contractor's construction schedule.
f. Requested substitution has received necessary approvals of authorities having jurisdiction.
g. Requested substitution is compatible with other portions of the Work.
h. Requested substitution has been coordinated with other portions of the Work.
i. Requested substitution provides specified warranty.
j. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

B. Substitutions for Convenience: Not allowed.

C. Public Interest Findings: The Department has made a public interest finding and has determined that the following items shall be used for the project, and no substitution therefor shall be allowed:

1. CXT Incorporated Prefabricated Public Restroom Model# S-301 “Santiago”
2. ICON Shelter Systems Incorporated 30’ x 40’ x 8.5’ Rectangular Gable Shelter

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01 31 00
PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:

1. General coordination procedures.
2. Coordination drawings.
3. Requests for Information (RFIs).
4. Project meetings.

B. Each contractor shall participate in coordination requirements. Certain areas of responsibility are assigned to a specific contractor.

C. Related Requirements:

1. Section 01 73 00 "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
2. Section 01 77 00 "Closeout Procedures" for coordinating closeout of the Contract.

1.3 DEFINITIONS

A. RFI: Request from Owner, Engineer, or Contractor seeking information required by or clarifications of the Contract Documents.

1.4 INFORMATIONAL SUBMITTALS

A. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.

1.5 GENERAL COORDINATION PROCEDURES

A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work.

Coordinate construction operations, included in different Sections, that depend on each other for proper installation, connection, and operation.

1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
3. Make adequate provisions to accommodate items scheduled for later installation.

B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.

1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.

C. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

1.6 REQUESTS FOR INFORMATION (RFIs)

A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.

1. Engineer will return RFIs submitted to Engineer by other entities controlled by Contractor with no response.
2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.

B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:

1. Project name.
2. Project number.
3. Date.
4. Name of Contractor.
5. Name of Engineer
6. RFI number, numbered sequentially.
7. RFI subject.
8. Specification Section number and title and related paragraphs, as appropriate.
9. Drawing number and detail references, as appropriate.

10. Field dimensions and conditions, as appropriate.
11. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
12. Contractor's signature.
13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.

    a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.

B. RFI Forms: Software-generated form with substantially the same content as indicated above, acceptable to Engineer.

    1. Attachments shall be electronic files in Adobe Acrobat PDF format.

C. Engineer's Action: Engineer will review each RFI, determine action required, and respond. Allow seven working days for Engineer's response for each RFI. RFIs received by Engineer after 1:00 p.m. will be considered as received the following working day.

    1. The following Contractor-generated RFIs will be returned without action:

        a. Requests for approval of submittals.
        b. Requests for approval of substitutions.
        c. Requests for approval of Contractor's means and methods.
        d. Requests for coordination information already indicated in the Contract Documents.
        e. Requests for adjustments in the Contract Time or the Contract Sum.
        f. Requests for interpretation of Engineer's actions on submittals.
        g. Incomplete RFIs or inaccurately prepared RFIs.

    2. Engineer's action may include a request for additional information, in which case Engineer's time for response will date from time of receipt of additional information.

    3. Engineer’s action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 8-1.07 and Section 9 of the Special Provisions.

        a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify the Engineer in writing within 10 days of receipt of the RFI response.

D. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Include the following:

    1. Project name.
    2. Name and address of Contractor.
    3. Name and address of Engineer.

4. RFI number including RFIs that were returned without action or withdrawn.
5. RFI description.
6. Date the RFI was submitted.

11. Date Engineer's response was received.

C. On receipt of Engineer's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Engineer within seven days if Contractor disagrees with response.

1. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
2. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.

1.7 PROJECT MEETINGS

A. General: Engineer will schedule and conduct meetings and conferences at Project site unless otherwise indicated.

1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Engineer of scheduled meeting dates and times.
2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Engineer, within three days of the meeting.

B. Preconstruction Conference: Engineer will schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Project Engineer, but no later than 15 days after execution of the Agreement.

1. Conduct the conference to review responsibilities and personnel assignments.
2. Attendees: Authorized representatives of Owner, Engineer, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
3. Agenda: Discuss items of significance that could affect progress, including the following:

a. Tentative construction schedule.
b. Phasing.
c. Critical work sequencing and long-lead items.
d. Designation of key personnel and their duties.
e. Lines of communications.
f. Procedures for processing field decisions and Change Orders.
g. Procedures for RFIs.
h. Procedures for testing and inspecting.

i. Procedures for processing Applications for Payment.
j. Distribution of the Contract Documents.
k. Submittal procedures.
l. Preparation of record documents.
m. Use of the premises.
n. Work restrictions.
o. Working hours.
p. Owner's occupancy requirements.
q. Responsibility for temporary facilities and controls.
r. Procedures for disruptions and shutdowns.
s. Construction waste management and recycling.
t. Parking availability.
u. Office, work, and storage areas.
v. Equipment deliveries and priorities.
w. First aid.
x. Security.
y. Progress cleaning.

C. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction.

1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Engineer of scheduled meeting dates.
2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:

a. Contract Documents.
b. Options.
c. Related RFIs.
d. Related Change Orders.
e. Purchases.
f. Deliveries.
g. Submittals.
h. Review of mockups.
i. Possible conflicts.
j. Compatibility requirements.
k. Time schedules.
l. Weather limitations.
m. Manufacturer's written instructions.
n. Warranty requirements.
o. Compatibility of materials.
p. Acceptability of substrates.
q. Temporary facilities and controls.
r. Space and access limitations.
s. Regulations of authorities having jurisdiction.

t. Testing and inspecting requirements.
u. Installation procedures.
v. Coordination with other work.
w. Required performance results.
x. Protection of adjacent work.
y. Protection of construction and personnel.

3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.
5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.

D. Project Closeout Conference: Engineer will schedule and conduct a project closeout conference, at a time convenient to Owner and Engineer, but no later than 90 days prior to the scheduled date of Substantial Completion.

1. Conduct the conference to review requirements and responsibilities related to Project closeout.
2. Attendees: Authorized representatives of Owner, Engineer, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
3. Agenda: Discuss items of significance that could affect or delay Project closeout, including the following:

a. Preparation of record documents.
b. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.
c. Submittal of written warranties.
d. Requirements for preparing operations and maintenance data.
e. Requirements for delivery of material samples, attic stock, and spare parts.
f. Requirements for demonstration and training.
g. Preparation of Contractor's punch list.
h. Procedures for processing Applications for Payment at Substantial Completion and for final payment.
i. Submittal procedures.
j. Responsibility for removing temporary facilities and controls.

4. Minutes: Entity conducting meeting will record and distribute meeting minutes.

E. Progress Meetings: Engineer will conduct progress meetings at weekly intervals.

1. Coordinate dates of meetings with preparation of payment requests.
2. Attendees: In addition to representatives of Owner and Engineer, each contractor, subcontractor, supplier, and other entity concerned with current progress or

involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.

3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.

    a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

        1) Review schedule for next period.

    b. Review present and future needs of each entity present, including the following:

        1) Interface requirements.
        2) Sequence of operations.
        3) Status of submittals.
        4) Deliveries.
        5) Off-site fabrication.
        6) Access.
        7) Site utilization.
        8) Temporary facilities and controls.
        9) Progress cleaning.
        10) Quality and work standards.
        11) Status of correction of deficient items.
        12) Field observations.
        13) Status of RFIs.
        14) Status of proposal requests.
        15) Pending changes.
        16) Status of Change Orders.
        17) Pending claims and disputes.
        18) Documentation of information for payment requests.

4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.

    a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01 33 00
SUBMITTALS PROCEDURES

PART 1 - GENERAL

1.1 STANDARD SPECIFICATIONS:

The provisions of the Standard Specifications shall apply, except as modified herein. Refer to Section 5-1.23A of the Special Provisions.

1.2 SCOPE:

The Work of this Section shall consist of furnishing all labor, materials, equipment, appliances, and services necessary for the execution and completion of all Submittals Work as shown on the Plans and as described in the Specifications including, but not necessarily limited to, the following:

- Preparation of Submittals Schedule; Submittals Planning;
- Submittals Preparation, Distribution and Transmittal, to include all of the following:
    - Existing static water pressure tests and meter size verification; Dig Alert compliance and Site investigation certification; Materials Lists;
    - Product Data (Catalog Cuts); Material Samples;
    - Record Drawings; Irrigation Controller Charts; Turn-over Items;
    - Submittals Schedule updating and distribution;

1.3 RELATED WORK:

Shop Drawing Submittals

Contractor's Construction Schedule- Updated and revised as required;

1.4 SUBMITTAL PLANNING:

A. Processing Lead Time: Allow sufficient review time so that installation will not be delayed as a result of the time required to process submittals, including time for resubmittals.

1. Allow **two (2)** weeks for initial review. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. The Engineer will promptly advise Contractor when a submittal being processed must be delayed for coordination.

2. If a resubmittal is necessary due to corrections or revisions, process the resubmittal in the same manner as the initial submittal.

3. Allow **two (2)** weeks for processing each resubmittal.

4. No extension of Contract Time will be authorized because of failure to transmit submittals to the Construction Manager sufficiently in advance of the Work to provide

the two-week processing time specified.

1.5 Coordination and Completeness:

1. Each submittal must have a cover sheet that must include:
   a. Contract number
   b. Project name
   c. Date
   d. Submittals (and resubmittals if applicable) must be numbered sequentially
   e. Structure number if applicable
   f. Contractor
   g. Person responsible for submitting the submittal
   h. Signature of Contractor's representative sending submittal
   i. Section number and/or item submittal is referencing
   j. Pages of submittal, excluding cover sheet

2. Contractor shall coordinate preparation and processing of submittals with the performance of the related Work. Transmit each submittal allowing sufficient lead time to obtain appropriate reviews and approvals and to avoid delays in the related Work.

3. Coordinate the submittal date for each submittal with the lead time needed for fabrication, purchasing, testing, delivery, review of other related submittals, and related Work that require sequential processing/completion.

4. Coordinate the transmittal dates for each different type of submittal so processing will not be delayed. Ensure concurrent transmittal of submittals for related portions of the Work that need concurrent review to allow the Engineer to verify that a coordinated work effort is being provided. Agency and Engineer each reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

5. Contractor is responsible to verify completeness of all submittals. Incomplete submittals will be rejected.

1.6 ELECTRONIC SUBMITTAL:

Electronic Procedures Summary

- Shop drawing and product data submittals shall be transmitted to Engineer in electronic (PDF) format.

- The intent of electronic submittals is to expedite the construction process by reducing paperwork, improving information flow, and decreasing turnaround time.

- The electronic submittal process is not intended for color samples, color charts, or physical material samples.

Procedures:

Submittal Preparation - Contractor may use any or all of the following options:

- Subcontractors and Suppliers provide electronic (PDF) submittals to Contractor via email.
- Subcontractors and Suppliers provide paper submittals to General Contractor who electronically scans and converts to PDF format.
- Subcontractors and Suppliers provide paper submittals to Scanning Service which electronically scans and converts to PDF format.

Contractor shall review and apply electronic stamp certifying that the submittal complies with the requirements of the Contract Documents including verification of manufacturer / product, dimensions and coordination of information with other parts of the work.

Contractor shall transmit each submittal to Engineer.

Engineer review comments will be made available.

Distribution of reviewed submittals to subcontractors and suppliers is the responsibility of the Contractor.

Submit paper copies of reviewed submittals at project closeout for record purposes at project closeout.

1.7 Submittal Schedule:

Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Engineer and Construction Manager and additional time for handling and reviewing submittals required by those corrections.

1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.

2. Initial Submittal: Submit concurrently with startup construction schedule. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.

3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's construction schedule.

    a. Submit revised submittal schedule to reflect changes in current status and timing for submittals.

4. Format: Arrange the following information in a tabular format:

    a. Scheduled date for first submittal.
    b. Specification Section number and title.

c. Name of subcontractor.
d. Description of the Work covered.
e. Scheduled date for Engineer's and Construction Manager's final release or approval.
f. Scheduled date of fabrication.
g. Scheduled dates for purchasing.
h. Scheduled dates for installation.
i. Activity or event number.

Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Engineer's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.

1. Initial Review: Allow 15 workdays for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Engineer or Construction Manager will advise Contractor when a submittal being processed must be delayed for coordination.

    a. Engineer and Construction Manager reserve the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.

3. Resubmittal Review: Allow 15 workdays for review of each resubmittal.

B. Transmittal Form for Electronic Submittals: File name shall use project Specification Section number followed by a decimal point and then a sequential number (061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g.,061000.01.A). Use software-generated form from electronic project management software or electronic form acceptable to Owner, containing the following information:

1. Project name.
2. Date.
3. Name and address of Engineer.
4. Name of Construction Manager.
5. Name of Contractor.
6. Name of firm or entity that prepared submittal.
7. Names of subcontractor, manufacturer, and supplier.
8. Category and type of submittal.
9. Submittal purpose and description.
10. Specification Section number and title.
11. Specification paragraph number or drawing designation and generic name for each of multiple items.

12. Drawing number and detail references, as appropriate.
13. Location(s) where product is to be installed, as appropriate.
14. Related physical samples submitted directly.
15. Indication of full or partial submittal.
16. Transmittal number, numbered consecutively.
17. Submittal and transmittal distribution record.
18. Other necessary identification.
19. Remarks.
20. Deviations and Additional Information:
    a. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Engineer and Construction Manager on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.

1.8 RFI'S:

Contractor shall submit Request for Information (RFIs) via Submittal Exchange upon immediate discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the format acceptable by the Construction Manager.

A. Engineer will return RFIs submitted by other entities controlled by Contractor with no response.
B. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
C. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:

1. Project name.
2. Project number.
3. Date.
4. Name of Contractor.
5. Name of Engineer and Construction Manager.
6. RFI number, numbered sequentially.
7. RFI subject.
8. Specification Section number and title and related paragraphs, as appropriate.
9. Drawing number and detail references, as appropriate.
10. Field dimensions and conditions, as appropriate.
11. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
12. Contractor's physical or digital signature.
13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.

1.9 SAMPLES:

General: Submit full-size, fully fabricated Samples cured and finished as specified, in the quantity specified in the respective Technical Specification section, and physically identical with the material or product proposed. Where quantities are not specified in the Technical Specification, submit a minimum of three samples, one will be returned marked with the action taken. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture and pattern.

1. Mount, display, or package Samples in the manner specified to facilitate review of qualities indicated. Prepare Samples Submittals to match the Engineer's Sample when available. Include the following:

    a) Generic description of the Sample.

    b) Sample source.

    c) Product name or name of manufacturer.

    d) Certification of compliance with the specified standards.

    e) Availability and delivery time.

2. Submit Samples for review of kind, color, pattern, and texture, for a final check of these characteristics with other elements, and for a comparison of these characteristics between the final submittal and the actual component as delivered and installed. Where variation in color, pattern, texture or other characteristics are inherent in the material or product represented, submit multiple units (not less than 3), that show approximate limits of the variations.

3. Preliminary submittals: Where Samples are for selection of color, pattern, texture or similar characteristics from a range of standard choices, submit a full set of choices for the material or product. Preliminary submittals will be reviewed and returned with the appropriate Designer's mark indicating selection and other action.

4. Maintain appropriately marked sets of Samples, as returned by County, at the Project site for quality comparisons throughout the course of construction.

Distribution of Samples: If additional sets of samples are needed for distribution to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the Work, Contractor shall submit samples in sufficient quantities for such distribution. Do not distribute unmarked copies of sample to others involved in the Work.

1.10 MATERIALS LISTS:

A. Submittal Requirements: Submitting a catalog number and manufacturer's name as a materials list stating that the items will be furnished to meet the Specifications will not be acceptable. Contractor shall submit a complete materials list for approval by The Construction Manager prior to performing any Work. Catalog data and full descriptive literature must be submitted whenever the use of items different than those specified is requested. Notarized certificate must be submitted by plastic pipe and

fitting manufacturer indicating that material complies with the Project Specifications, unless material has been previously approved and used on other projects by Agency.

Material list shall be submitted in a format similar to the following:

	Item Description	Manufacturer	Model No.
1.	Pressure Supply Line	Lasco	Sch. 40
2.	Faucet Valve	HAWS	6252EHLF
etc.	etc.	etc.	etc.

1.11 "RECORD" PRINTS:

A. Changes: Record accurately on one set of blue-line prints all changes in the Work constituting departures from the original Contract Plans. For example, changes in pressure and non-pressure irrigation line locations.

B. Legibility and Approval: The changes and dimensions shall be recorded in a legible and workmanlike manner to the satisfaction of the Agency. Prior to final inspection of the Work, submit "record" prints to The Construction Manager for approval.

C. Reference Points: Dimension from two permanent points of reference (buildings, monuments, sidewalks, curbs, pavement, etc.). Data to be shown on "record" prints shall be recorded day-to-day as the project is being installed.

D. As-built Items: Show locations and depths of the following types of underground items:

1. Point(s) of connection for domestic water, gas, sewer, electric and similar underground utilities.

2. Routing of underground conduits, and utility lines (dimension maximum 100 feet on center along routing).

3. All types of valves in various piping systems, including gate valves, quick coupler and remote- control valves.

4. Related equipment (as may be directed).

E. Maintain record prints on site at all times.

1.12 SOIL REPORTS:

A. Submittal:

Contractor to inform the County upon the completion of Fine Grading and sampling at various locations as directed by County Representative. Testing and reports shall be by the County.

1.13 EXISTING STATIC WATER PRESSURE/ WATER METER SIZE VERIFICATION:

A. Submittal:

Static water pressure on site shall be recorded with an accurate liquid filled gauge capable of measuring 0-200 PSI (Winters PFQ806LF or equal). Measurements shall be taken as early as possible per available source and at a time no other distribution devices are actively running. Contractor to document readings in writing on Contractors form that list time & date, reading in PSI, location, and type of gauge used in addition to date stamped photographs of readings. Contractor to document all points of service including both potable and recycled.

1.14 DIG ALERT COMPLIANCE AND SITE INVESTIGATION VERIFICATION:

A. Submittal:

Contractor to submit and keep active Tickets open with 'DIG Alert' throughout the duration of the project. Contractor to print out all tickets and updates/renewals and submit copies upon start and monthly thereafter. Any lapse in active DIG Alert tickets resulting in any damages will be the sole responsibility of the contractor. Contractor to also Verify in a written report all steps taken to investigate the site for existing buried utilities and or other underground structures that may be present. Contractor to list all visible structures that can be seen/assumed to have or be serviced by underground utilities and or structures and what steps were taken to investigate possible utilities and locations. Any failure by the Contractor to complete this required due diligence and resulting damages will be the sole responsibility of said Contractor.

PART 2 - MATERIALS (Not Applicable).

PART 3 - EXECUTION (Not Applicable).

END OF SECTION

SECTION 01 40 00
QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for quality assurance and quality control.

B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.

1. Specific quality-assurance and -control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
3. Requirements for Contractor to provide quality-assurance and -control services required by Engineer, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
4. Specific test and inspection requirements are not specified in this Section.

1.3 DEFINITIONS

A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.

B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Engineer.

C. Mockups: Full-size physical assemblies that are constructed on-site. Mockups are constructed to verify selections made under Sample submittals; to demonstrate aesthetic effects and, where indicated, qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances. Mockups are not Samples. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged.

1. Laboratory Mockups: Full-size physical assemblies constructed at testing facility to verify performance characteristics.
2. Integrated Exterior Mockups: Mockups of the exterior envelope erected separately from the building but on Project site, consisting of multiple products, assemblies, and subassemblies.
3. Room Mockups: Mockups of typical interior spaces complete with wall, floor, and ceiling finishes, doors, windows, millwork, casework, specialties, furnishings and equipment, and lighting.

D. Preconstruction Testing: Tests and inspections performed specifically for Project before products and materials are incorporated into the Work, to verify performance or compliance with specified criteria.

E. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.

F. Source Quality-Control Testing: Tests and inspections that are performed at the source, e.g., plant, mill, factory, or shop.

G. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.

H. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

I. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.

1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade(s).

J. Experienced: When used with an entity or individual, "experienced" means having successfully completed a minimum of five previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

1.4 CONFLICTING REQUIREMENTS

A. Referenced Standards: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or

quality levels comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Engineer for a decision before proceeding.

B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum

C. Within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Engineer for a decision before proceeding.

1.5 INFORMATIONAL SUBMITTALS

A. Contractor's Quality-Control Plan: For quality-assurance and quality-control activities and responsibilities.

B. Qualification Data: For Contractor's quality-control personnel.

C. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.

D. Schedule of Tests and Inspections: Prepare in tabular form and include the following:

1. Specification Section number and title.
2. Entity responsible for performing tests and inspections.
3. Description of test and inspection.
4. Identification of applicable standards.
5. Identification of test and inspection methods.
6. Number of tests and inspections required.
7. Time schedule or time span for tests and inspections.
8. Requirements for obtaining samples.
9. Unique characteristics of each quality-control service.

1.6 CONTRACTOR'S QUALITY-CONTROL PLAN

A. Quality-Control Plan, General: Submit quality-control plan within 10 days of Notice to Proceed, and not less than five days prior to preconstruction conference. Submit in format acceptable to Engineer. Identify personnel, procedures, controls, instructions, tests, records, and forms to be used to carry out Contractor's quality- assurance and quality-control responsibilities. Coordinate with Contractor's construction schedule.

B. Quality-Control Personnel Qualifications: Engage qualified full-time personnel trained and experienced in managing and executing quality-assurance and quality-control procedures similar in nature and extent to those required for Project.

1. Project quality-control manager may also serve as Project superintendent.

C. Submittal Procedure: Describe procedures for ensuring compliance with requirements through review and management of submittal process. Indicate qualifications of personnel responsible for submittal review.

D. Testing and Inspection: In quality-control plan, include a comprehensive schedule of Work requiring testing or inspection, including the following:

1. Contractor-performed tests and inspections including subcontractor-performed tests and inspections. Include required tests and inspections and Contractor- elected tests and inspections.
2. Special inspections required by authorities having jurisdiction and indicated on the "Statement of Special Inspections."
3. Owner-performed tests and inspections indicated in the Contract Documents.

E. Continuous Inspection of Workmanship: Describe process for continuous inspection during construction to identify and correct deficiencies in workmanship in addition to testing and inspection specified. Indicate types of corrective actions to be required to bring work into compliance with standards of workmanship established by Contract requirements and approved mockups.

F. Monitoring and Documentation: Maintain testing and inspection reports including log of approved and rejected results. Include work Engineer has indicated as nonconforming or defective. Indicate corrective actions taken to bring nonconforming work into compliance with requirements. Comply with requirements of authorities having jurisdiction.

1.7 REPORTS AND DOCUMENTS

A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:

1. Date of issue.
2. Project title and number.
3. Name, address, and telephone number of testing agency.
4. Dates and locations of samples and tests or inspections.
5. Names of individuals making tests and inspections.
6. Description of the Work and test and inspection method.
7. Identification of product and Specification Section.
8. Complete test or inspection data.
9. Test and inspection results and an interpretation of test results.
10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
12. Name and signature of laboratory inspector.
13. Recommendations on retesting and reinspecting.

B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:

1. Name, address, and telephone number of technical representative making report.
2. Statement on condition of substrates and their acceptability for installation of product.
3. Statement that products at Project site comply with requirements.
4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
6. Statement whether conditions, products, and installation will affect warranty.
7. Other required items indicated in individual Specification Sections.

C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:

1. Name, address, and telephone number of factory-authorized service representative making report.
2. Statement that equipment complies with requirements.
3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
4. Statement whether conditions, products, and installation will affect warranty.
5. Other required items indicated in individual Specification Sections.

D. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.8 QUALITY ASSURANCE

A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.

B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

D. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.

E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing

engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.

F. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.

1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.

G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 329; and with additional qualifications specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.

1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.

H. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

I. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

J. Preconstruction Testing: Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:

1. Contractor responsibilities include the following:

a. Provide test specimens representative of proposed products and construction.
b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
c. Provide sizes and configurations of test assemblies, mockups, and laboratory mockups to adequately demonstrate capability of products to comply with performance requirements.
d. Build site-assembled test assemblies and mockups using installers who will perform same tasks for Project.
e. Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
f. When testing is complete, remove test specimens, assemblies, and mockups;

do not reuse products on Project.

2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Engineer with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

1.9 QUALITY CONTROL

A. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities required to verify that the Work complies with requirements, whether specified or not.

1. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.

2. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
   a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
3. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
4. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
5. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.

B. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Section 01 33 00 "Submittal Procedures."

C. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.

D. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.

E. Testing Agency Responsibilities: Cooperate with Engineer and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.

1. Notify Engineer and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
6. Do not perform any duties of Contractor.

F. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:

1. Access to the Work.
2. Incidental labor and facilities necessary to facilitate tests and inspections.
3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
4. Facilities for storage and field curing of test samples.
5. Delivery of samples to testing agencies.
6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
7. Security and protection for samples and for testing and inspecting equipment at Project site.

G. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.

1. Schedule times for tests, inspections, obtaining samples, and similar activities.

H. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents. Coordinate and submit concurrently with Contractor's construction schedule. Update as the Work progresses.

1. Distribution: Distribute schedule to Owner, Engineer, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

1.10 SPECIAL TESTS AND INSPECTIONS

A. Special Tests and Inspections: Owner will engage a qualified testing agency and/or special

inspector to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, and as follows:

1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviews the completeness and adequacy of those procedures to perform the Work.
2. Notifying Engineer and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
3. Submitting a certified written report of each test, inspection, and similar quality-control service to Engineer with copy to Contractor and to authorities having jurisdiction.
4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
6. Retesting and reinspecting corrected work.

PART 2 - PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 TEST AND INSPECTION LOG

A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:

1. Date test or inspection was conducted.

2. Description of the Work tested or inspected.

3. Date test or inspection results were transmitted to Engineer.

4. Identification of testing agency or special inspector conducting test or inspection.

B. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Engineer's reference during normal working hours.

3.2 REPAIR AND PROTECTION

A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 01 73 00 "Execution."

B. Protect construction exposed by or for quality-control service activities.

C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION

SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
B. Related Requirements:

1. Section 01 10 00 "Summary" for work restrictions and limitations on utility interruptions.

1.3 USE CHARGES

A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Engineer, testing agencies, and authorities having jurisdiction.

B. Sewer Service: Pay sewer-service use charges for sewer usage by all entities for construction operations.

C. Water Service: Pay water-service use charges for water used by all entities for construction operations.

D. Electric Power Service: Pay electric-power-service use charges for electricity used by all entities for construction operations.

1.4 INFORMATIONAL SUBMITTALS

A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.

B. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.

1.5 QUALITY ASSURANCE

A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.6 PROJECT CONDITIONS

A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Chain-Link Fencing: Minimum 2-inch, 0.148-inch-thick, galvanized-steel, chain-link fabric fencing; minimum 6 feet high with galvanized-steel pipe posts; minimum 2-3/8- inch-OD line posts and 2-7/8-inch-OD corner and pull posts, with 1-5/8-inch-OD top rails.

B. Portable Chain-Link Fencing: Minimum 2-inch, 0.148-inch-thick, galvanized-steel, chain-link fabric fencing; minimum 6 feet high with galvanized-steel pipe posts; minimum 2-3/8-inch-OD line posts and 2-7/8-inch-OD corner and pull posts, with 1-5/8- inch-OD top and bottom rails. Provide galvanized-steel bases for supporting posts.

C. Polyethylene Sheet: Reinforced, fire-resistive sheet, 10-mil minimum thickness, with flame-spread rating of 15 or less per ASTM E 84 and passing NFPA 701 Test Method 2.

2.2 TEMPORARY FACILITIES

A. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.

1. Store combustible materials apart from building.

2.3 EQUIPMENT

A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.

1. Locate facilities to limit site disturbance as specified in Section 01 10 00 "Summary."

B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

A. General: Install temporary service or connect to existing service.

1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.

B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.

1. Connect temporary sewers to municipal system as directed by authorities having jurisdiction.

C. Water Service: Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.

D. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.

E. Electric Power Service: Provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.

1. Install temporary electric power service overhead unless otherwise indicated.

F. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.

1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
2. Install lighting for Project identification sign.

3.3 SUPPORT FACILITIES INSTALLATION

A. General: Comply with the following:

1. Provide construction for temporary shops and sheds located within construction area or within 30 feet of building lines that is noncombustible according to ASTM E 136. Comply with NFPA 241.
2. Maintain support facilities until agency inspector schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after

Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.

B. Temporary Roads and Paved Areas: Construct and maintain temporary roads and paved areas adequate for construction operations. Locate temporary roads and paved areas within construction limits indicated on Drawings.

1. Provide dust-control treatment that is nonpolluting and nontracking. Reapply treatment as required to minimize dust.

C. Temporary Use of Permanent Roads and Paved Areas: Locate temporary roads and paved areas in same location as permanent roads and paved areas. Construct and maintain temporary roads and paved areas adequate for construction operations. Extend temporary roads and paved areas, within construction limits indicated, as necessary for construction operations.

1. Coordinate elevations of temporary roads and paved areas with permanent roads and paved areas.
2. Prepare subgrade and install subbase and base for temporary roads and paved areas.
3. Delay installation of final course of permanent hot-mix asphalt pavement until immediately before Substantial Completion. Repair hot-mix asphalt base-course pavement before installation of final course according to Section 32 12 16 "Asphalt Paving."

D. Traffic Controls: Comply with requirements of authorities having jurisdiction.

1. Protect existing site improvements to remain including curbs, pavement, and utilities.
2. Maintain access for fire-fighting equipment and access to fire hydrants.

E. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.

1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
2. Remove snow and ice as required to minimize accumulations.

F. Waste Disposal Facilities: Comply with requirements specified in Section 01 74 19 "Construction Waste Management and Disposal."

G. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Section 01 73 00 "Execution."

H. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.

1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.

B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

1. Comply with work restrictions specified in Section 01 10 00 "Summary."

C. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent properties and walkways, according to the SWPPP Site Plan.

1. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross tree- or plant- protection zones.
2. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
3. Clean, repair, and restore adjoining properties and roads affected by erosion and sedimentation from Project site during the course of Project.
4. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

D. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.

E. Tree and Plant Protection: Comply with requirements specified in Section 01 56 39 "Temporary Tree and Plant Protection."

F. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.

G. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals so Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using environmentally safe materials.

H. Site Enclosure Fence: Before construction operations begin, furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gates.

1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.
2. Maintain security by limiting number of keys and restricting distribution to authorized

personnel. Furnish one set of keys to Owner.

I. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each work day.

J. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.

K. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.

L. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire-prevention program.

1. Prohibit smoking in construction areas.
2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
4. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.

3.5 OPERATION, TERMINATION, AND REMOVAL

A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.

B. Maintenance: Maintain facilities in good operating condition until removal.

C. Operate Project-identification-sign lighting daily from dusk until 12:00 midnight.

D. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.

E. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.

2. Remove temporary roads and paved areas not intended for or acceptable for integration into permanent construction. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
3. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 01 77 00 "Closeout Procedures."

END OF SECTION

SECTION 01 56 39
TEMPORARY TREE AND PLANT PROTECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes general protection and pruning of existing trees, bushes, and plants that are affected by execution of the Work, whether temporary or permanent construction.

B. Related Requirements:

1. Section 01 50 00 "Temporary Facilities and Controls" for temporary site fencing.
2. Section 31 10 00 "Site Clearing" for removing existing trees and shrubs.

1.3 DEFINITIONS

A. Caliper: Diameter of a trunk measured by a diameter tape at a height 6 inches above the ground for trees up to and including 4-inch size at this height and as measured at a height of 12 inches above the ground for trees larger than 4-inch size.

B. Caliper diameter breast height (DBH): diameter of a trunk as measured by a diameter tape at a height 54 inches above the ground line.

C. Plant-Protection Zone: Area surrounding individual trees, groups of trees, shrubs, or other vegetation to be protected during construction and indicated on Drawings. Plant-protection zones shall be set as required by the Engineer.

D. Tree-Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction and [indicated on Drawings] [defined by a circle concentric with each tree with a radius 1.5 times the diameter of the drip line unless otherwise indicated] defined by a circle concentric with each tree with a radius 12 times the tree's caliper size and with a minimum radius of 96 inches unless otherwise indicated. Tree -protection zones shall be set as required by the Engineer.

E. Vegetation: Trees, bushes, shrubs, groundcovers, grass, and other plants.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.
1. Review methods and procedures related to temporary tree and plant protection including, but not limited to, the following:

a. personnel and equipment needed to make progress and avoid delays.
b. Trenching by hand or with air spade within protection zones.
c. Field quality control.

1.5 ACTION SUBMITTALS

A. NOT USED

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Contractor.

B. Certification: From Contractor, certifying that trees indicated to remain have been protected during construction according to recognized standards and that trees were promptly and properly treated and repaired when damaged.

C. Maintenance Recommendations: As required by the Engineer, for care and protection of trees affected by construction during and after completing the Work.

1.7 QUALITY ASSURANCE

A. The Contractor's crew used for the trimming of existing trees and shrubs shall have successful experience in tree trimming or a scope similar to that required for the Work.

1.8 FIELD CONDITIONS

A. The following practices are prohibited within protection zones:

1. Storage of construction materials, debris, or excavated material.
2. Moving or parking vehicles or equipment.
3. Foot traffic.
4. Erection of sheds or structures.
5. Impoundment of water.
6. Excavation or other digging unless otherwise indicated.
7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.

B. Do not direct vehicle or equipment exhaust toward protection zones.

C. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones and organic mulch.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Backfill Soil: Planting soil of suitable moisture content and granular texture for placing around tree; free of stones, roots, plants, sod, clods, clay lumps, pockets of coarse sand,

concrete slurry, concrete layers or chunks, cement, plaster, building debris, and other extraneous materials harmful to plant growth.

B. Organic Mulch: Free from deleterious materials and suitable as a top dressing for trees and shrubs, consisting of one of the following:

1. Type: Ground or shredded bark.
2. Size Range: 3 inches maximum, 1/2 inch minimum.
3. Color: Natural.

C. Protection-Zone Fencing: Fencing fixed in position and meeting the following requirements:

1. Plastic Protection-Zone Fencing: Plastic construction fencing constructed of high-density extruded and stretched polyethylene fabric with 2-inch maximum opening in pattern and weighing a minimum of 0.4 lb/ft.; remaining flexible from minus 60 to plus 200 deg F; inert to most chemicals and acids; minimum tensile yield strength of 2000 psi and ultimate tensile strength of 2680 psi; secured with plastic bands or galvanized-steel or stainless-steel wire ties; and supported by tubular or T-shape galvanized-steel posts spaced not more than 96 inches apart.

a. Height: 48 inches.
b. Color: High-visibility orange, nonfading.

D. Protection-Zone Signage: Shop-fabricated, rigid plastic or metal sheet with attachment holes prepunched and reinforced; legibly printed with nonfading lettering and as follows:

1. Lettering: 3-inch-high minimum, black characters on white background.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Erosion and Sedimentation Control: Examine the site to verify that temporary erosion- and sedimentation-control measures are in place. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.

B. Prepare written report, as required by the Engineer, listing conditions detrimental to tree and plant protection.

3.2 PREPARATION

A. All tree/bush trimming shall conform to the guidelines of the most recent edition of the American National Standard for Tree Care Operations Pruning Standards and Best Management Practices
B. All existing trees, bushes, and plants shall be protected in place unless otherwise specified.
C. Use machinery that is in good condition with minimum tolerances between cutting blades. Ensure blades are true to their designed spade and free of bends which could interfere with

operation.

D. Locate and clearly identify trees, shrubs, and other vegetation ~~to remain~~ that will require pruning to complete the Work. Tie a 1-inch blue vinyl tape around each tree trunk at 54 inches above the ground.

E. Protect tree root systems from damage caused by runoff or spillage of noxious materials while mixing, placing, or storing construction materials. Protect root systems from ponding, eroding, or excessive wetting caused by dewatering operations.

F. Tree-Protection Zones: Mulch areas inside tree-protection zones and other areas indicated. Do not exceed indicated thickness of mulch.

1. Apply 2-inch uniform thickness of organic mulch unless otherwise indicated. Do not place mulch within 6 inches of tree trunks.

3.3 PROTECTION ZONES

A. Protection-Zone Fencing: Install protection-zone fencing along edges of protection zones before materials or equipment are brought on the site and construction operations begin in a manner that will prevent people and animals from easily entering protected areas except by entrance gates. Construct fencing so as not to obstruct safe passage or visibility at vehicle intersections where fencing is located adjacent to pedestrian walkways or in close proximity to street intersections, drives, or other vehicular circulation.

1. Chain-Link Fencing: Install to comply with ASTM F 567 and with manufacturer's written instructions.
2. Posts: Set or drive posts into ground one-third the total height of the fence without concrete footings. Where a post is located on existing paving or concrete to remain, provide appropriate means of post support acceptable to Engineer.
3. Access Gates: Install where necessary; adjust to operate smoothly, easily, and quietly; free of binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction throughout entire operational range. Confirm that latches and locks engage accurately and securely without forcing or binding.

B. Protection-Zone Signage: Install protection-zone signage in visibly prominent locations in a manner approved by Engineer. Install one sign spaced approximately every 35 feet on protection-zone fencing, but no fewer than four signs with each facing a different direction.

C. Maintain protection zones free of weeds and trash.

D. Maintain protection-zone fencing and signage in good condition as acceptable to Engineer and remove when construction operations are complete and equipment has been removed from the site.

1. Do not remove protection-zone fencing, even temporarily, to allow deliveries or equipment access through the protection zone.
2. Temporary access is permitted subject to preapproval in writing by the Engineer if a root buffer effective against soil compaction is constructed as directed by the Engineer. Maintain root buffer so long as access is permitted.

3.4 EXCAVATION

A. General: Excavate at edge of protection zones and for trenches indicated within protection zones according to requirements in Section 31 20 00 "Earth Moving" unless otherwise indicated.

B. Trenching within Protection Zones: Where utility trenches are required within protection zones, excavate under or around tree roots by hand or with air spade, or tunnel under the roots by drilling, auger boring, or pipe jacking. Do not cut main lateral tree roots or taproots; cut only smaller roots that interfere with installation of utilities. Cut roots as required for root pruning. If excavating by hand, use narrow-tine spading forks to comb soil and expose roots.

C. Redirect roots in backfill areas where possible. If encountering large, main lateral roots, expose roots beyond excavation limits as required to bend and redirect them without breaking. If encountered immediately adjacent to location of new construction and redirection is not practical, cut roots approximately 3 inches back from new construction and as required for root pruning.

D. Do not allow exposed roots to dry out before placing permanent backfill. Provide temporary earth cover or pack with peat moss and wrap with burlap. Water and maintain in a moist condition. Temporarily support and protect roots from damage until they are permanently relocated and covered with soil.

3.5 ROOT PRUNING

A. Prune tree roots that are affected by temporary and permanent construction. Prune roots as follows:

1. Cut roots manually by digging a trench and cutting exposed roots with sharp pruning instruments; do not break, tear, chop, or slant the cuts. Do not use a backhoe or other equipment that rips, tears, or pulls roots.
2. Cut Ends: As directed and recommended by the Engineer.
3. Temporarily support and protect roots from damage until they are permanently redirected and covered with soil.
4. Cover exposed roots with burlap and water regularly.
5. Backfill as soon as possible according to requirements in Section 31 20 00 "Earth Moving."

B. Root Pruning at Edge of Protection Zone: Prune tree roots 12 inches outside of the protection zone by cleanly cutting all roots to the depth of the required excavation.

C. Root Pruning within Protection Zone: Clear and excavate by hand or with air spade to the depth of the required excavation to minimize damage to tree root systems. If excavating by hand, use narrow-tine spading forks to comb soil to expose roots. Cleanly cut roots as close to excavation as possible.

3.6 CROWN PRUNING

A. The Contractor shall cut or limb up tree branches up to clear 10’ from the ground including removal and disposal of dead branches.

B. Unless otherwise directed by the Engineer and acceptable to Engineer, do not cut tree leaders.

C. Cut branches with sharp pruning instruments; do not break or chop.

D. Do not paint or apply sealants to wounds.

E. Provide subsequent maintenance pruning during Contract period as required by the Engineer.

F. Chip removed branches and dispose of off-site.

3.7 REGRADING

A. Lowering Grade within Protection Zone: Where new finish grade is indicated below existing grade around trees, slope grade away from trees as recommended by Engineer unless otherwise indicated.

1. Root Pruning: Prune tree roots exposed by lowering the grade. Do not cut main lateral roots or taproots; cut only smaller roots. Cut roots as required for root pruning.

B. Minor Fill within Protection Zone: Where existing grade is 2 inches or less below elevation of finish grade, fill with backfill soil. Place backfill soil in a single uncompacted layer and hand grade to required finish elevations.

3.8 FIELD QUALITY CONTROL

A. Inspections: Engage the Engineer to direct plant-protection measures in the vicinity of trees, shrubs, and other vegetation indicated to remain and to prepare inspection reports.

3.9 REPAIR AND REPLACEMENT

A. General: Repair or replace trees, shrubs, and other vegetation indicated to remain or to be relocated that are damaged by construction operations, in a manner approved by Engineer.
1. Submit details of proposed pruning and repairs.
2. Perform repairs of damaged trunks, branches, and roots within 24 hours according to the Engineer’s written instructions.
3. Replace trees and other plants that cannot be repaired and restored to full- growth status, as determined by Engineer.

B. Trees: Remove and replace trees indicated to remain that are more than 25 percent dead or in an unhealthy condition before the end of the corrections period or are damaged during

construction operations that Engineer determines are incapable of restoring to normal growth pattern. Dead tree stumps shall be ground down to 12” below the adjacent ground level. All debris generated shall be disposed of properly.

C. Excess Mulch: Rake mulched area within protection zones, being careful not to injure roots. Rake to loosen and remove mulch that exceeds a 2-inch uniform thickness to remain.

D. Soil Aeration: Where directed by Engineer, aerate surface soil compacted during construction. Aerate 10 feet beyond drip line and no closer than 36 inches to tree trunk. Drill 2-inch-diameter holes a minimum of 12 inches deep at 24 inches o.c. Backfill holes with an equal mix of augered soil and sand.

3.10 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. Disposal: Remove excess excavated material, displaced trees, trash, and debris and legally dispose of them off Owner's property. Remove equipment, unused materials, deleterious material, and surplus excavated material. Fine grade all disturbed areas to provide a neat and uniform site. All damaged existing structures, as a result of the Work, shall be corrected.

END OF SECTION

SECTION 01 71 13
MOBILIZATION, SITE MAINTENANCE, DEMOBILIZATION

PART 1 - GENERAL

1.1 GENERAL

Mobilization, site maintenance, and demobilization consists of moving in and establishing the work zones, establishing health and safety procedures, performing site maintenance and cleanup, and moving out of the work site.

2.2 PERMITS

Obtain all licenses and permits. Coordinate obtaining permits with County, as necessary. The contractor shall be responsible for obtaining and paying for the necessary permit from Development Services. The dummy permits have been included in the Project Details section of the specifications.

3.3 FENCING

Install any temporary fencing on the locations as deemed necessary by the County or the Contractor for site security.

4.4 NOTIFICATION FOR PROPERTY OWNERS AND TENANTS

The Contractor shall furnish all affected property owners and/or residents and merchants written notification that describes the proposed work. The notices shall include relevant dates and describe anticipated impacts to property owners during the work, including, but not limited to, a description of landscaping and improvements that may be affected and/or removed and a statement that the owners/residents have a right to salvage all such existing landscaping, improvements and/or materials that the Contractor may remove to facilitate construction within the right-of-way. The content, format, and method of delivery of such notices shall be approved by the Engineer prior to distribution. The Contractor is advised that these notices shall not be placed in mailboxes, as it is a violation of federal postal regulations. Affected property owners and residents or merchants shall be considered all those who:

a. Front on or are contiguous to the Project limits.

b. Have ingress/egress route only from within the Project limits.

The Contractor shall provide approved notification to all affected owners/residents a minimum of **ten (10) CALENDAR DAYS** prior to the commencement of any Project site work. Failure to distribute notices shall be sufficient cause for the Engineer to suspend the work until such notices are distributed.

5.5 WORK ZONES

Establish exclusion, decontamination, and clean zones at the Site, using temporary chain link fence, traffic barricades, caution tape, or other appropriate method.

6.6 RUBBISH AND TRASH

Collect rubbish and trash daily. Do not allow rubbish and trash to collect such that a safety or fire hazard exists or nuisance or bad appearance.

7.7 SITE MAINTENANCE

Promptly decontaminate and remove materials or equipment that have served their use on the Site. At the end of each day, perform the following:

c. Secure the site;
d. Store equipment and materials in locations approved by County;
e. Disconnect water and power (except as needed for health and safety and security.)

8.8 FINAL CLEANUP AND DEMOBILIZATION

f. Upon completion of the Work, decontaminate (if necessary) and remove all materials and equipment brought to the Site.

g. Leave the Site clear of all debris, including thoroughly sweeping all paved areas.

h. Remove any temporary fencing that was installed.

i. Repair any damage to fences, buildings, streets, parking lots, curbs, landscaping, and other property caused by Contractor's activities.

j. Decontaminate all equipment, vehicles, or other items prior to removal from the Site.

PART 2 - PRODUCTS
NOT USED

PART 3 - EXECUTION
NOT USED

END OF SECTION

SECTION 01 73 00
EXECUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:

1. Construction layout.
2. Field engineering and surveying.
3. Installation of the Work.
4. Cutting and patching.
5. Coordination of Owner-installed products.
6. Progress cleaning.
7. Starting and adjusting.
8. Protection of installed construction.

B. Related Requirements:

1. Section 01 10 00 "Summary" for limits on use of Project site.
2. Section 01 33 00 "Submittal Procedures" for submitting surveys.
3. Section 01 77 00 "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.

1.3 DEFINITIONS

A. Cutting: Removal of in-place construction necessary to permit installation or performance of other work.

B. Patching: Fitting and repair work required to restore construction to original conditions after installation of other work.

1.4 INFORMATIONAL SUBMITTALS

1. Cutting and Patching Plan: Submit plan describing procedures at least 10 days prior to the time cutting and patching will be performed. Include the following information
   a. Extent: Describe reason for and extent of each occurrence of cutting and patching.
   b. Products: List products to be used for patching and firms or entities that will perform patching work.

c. Dates: Indicate when cutting and patching will be performed.
d. Utilities and Mechanical and Electrical Systems: List services and systems that cutting and patching procedures will disturb or affect. List services and systems that will be relocated and those that will be temporarily out of service. Indicate length of time permanent services and systems will be disrupted.
e. Include description of provisions for temporary services and systems during interruption of permanent services and systems.

B. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

1.5 QUALITY ASSURANCE

A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.

B. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.

1. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety. Operational elements include the following:

a. Primary operational systems and equipment.
b. Fire-suppression systems.
c. Control systems.
d. Communication systems.
e. Conveying systems.
f. Electrical wiring systems.
g. Operating systems of special construction.

C. Cutting and Patching Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Comply with requirements specified in other Sections.
B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.

1. If identical materials are unavailable or cannot be used, use materials that, when

installed, will provide a match acceptable to Engineer for the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, and other construction affecting the Work.

1. Before construction, verify the location and invert elevation at points of connection of septic sewer, storm sewer, and water-service piping; underground electrical services, and other utilities.
2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.

B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.

C. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.

D. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:

1. Description of the Work.
2. List of detrimental conditions, including substrates.
3. List of unacceptable installation tolerances.
4. Recommended corrections.

E. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Existing Utility Information: Furnish information to local utility and Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.

B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid

delaying the Work.

C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of Contractor, submit a request for information to Engineer according to requirements in Section 01 31 00 "Project Management and Coordination."

3.3 CONSTRUCTION LAYOUT

A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Engineer and Construction Manager promptly.

B. General: Engage a qualified land surveyor to lay out the Work using accepted surveying practices.

1. Establish control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
2. Establish limits on use of Project site.
3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
4. Inform installers of lines and levels to which they must comply.
5. Check the location, level and plumb, of every major element as the Work progresses.
6. Notify Engineer when deviations from required lines and levels exceed allowable tolerances.

C. Construction Staking: Contractor shall be responsible for providing horizontal and vertical control stakes sufficient to accurately construct the improvements as shown in the Plans.

Stakes and marks will be set by the surveyor for the completion of the work indicated in these Specifications, the Plans and in the Special Provisions. The Contractor shall take all necessary measures to ensure stakes and marks are not removed, damaged, or destroyed during construction. If the stakes or marks are removed, damaged, or destroyed, the surveyor shall replace them at his/her earliest convenience at the Contractor’s expense.

The County maintains the right to spot check all stakes and marks.

D. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.

E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Engineer and Construction Manager.

3.4 FIELD ENGINEERING

A. Identification: Contractor shall identify existing benchmarks and control points.

B. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.

1. Do not change or relocate existing benchmarks or control points without prior written approval of Engineer or Construction Manager. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Engineer and Construction Manager before proceeding.
2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.

3.5 INSTALLATION

A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.

1. Make vertical work plumb and make horizontal work level.
2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.

B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.

C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.

D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.

E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on site and placement in permanent locations.

F. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.

G. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.

H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate

size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.

1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Engineer.
2. Allow for movement, including thermal expansion and contraction.
3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

I. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.

J. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.6 CUTTING AND PATCHING

A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.

1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.

B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.

C. Temporary Support: Provide temporary support of work to be cut.

D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.

E. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching according to requirements in Section 01 10 00 "Summary."

F. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to minimize interruption to occupied areas.

G. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.

1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
4. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.
5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
6. Proceed with patching after construction operations requiring cutting are complete.

H. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.

1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
    a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
    b. Restore damaged pipe covering to its original condition.

I. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.7 PROGRESS CLEANING

A. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.

1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F.
3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.

a. Use containers intended for holding waste materials of type to be stored.

4. Coordinate progress cleaning for joint-use areas where Contractor and other contractors are working concurrently.

B. Site: Maintain Project site free of waste materials and debris.

1. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
   a. Remove liquid spills promptly.
   b. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.

C. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

D. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.

E. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

F. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Section 01 74 19 "Construction Waste Management and Disposal."

G. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.

H. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

I. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.8 STARTING AND ADJUSTING

A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.

B. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.

C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

D. Manufacturer's Field Service: Comply with qualification requirements in Section 01 40 00 "Quality Requirements."

3.9 PROTECTION OF INSTALLED CONSTRUCTION

A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.

B. Comply with manufacturer's written instructions for temperature and relative humidity.

END OF SECTION

SECTION 01 74 19
CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, Section 14 of Caltrans Standard Specifications and Special provisions, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for the following:

1. Salvaging nonhazardous demolition and construction waste.
2. Recycling nonhazardous demolition and construction waste.
3. Disposing of nonhazardous demolition and construction waste.

B. Related Requirements:

1. Section 31 10 00 "Site Clearing" for disposition of waste resulting from site clearing and removal of above- and below-grade improvements.

1.3 DEFINITIONS

A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.

B. Demolition Waste: Building and site improvement materials resulting from demolition

C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.

D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.

E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.

F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

1.4 PERFORMANCE REQUIREMENTS

A. General: Achieve end-of-Project rates for salvage/recycling of 75 percent by weight of total non-

hazardous solid waste generated by the Work. Practice efficient waste management in the use of materials in the course of the Work. Use all reasonable means to divert construction and demolition waste from landfills and incinerators. Facilitate recycling and salvage of materials, including the following:

1. Demolition Waste:

    a. Asphalt paving.
    b. Concrete.
    c. Concrete reinforcing steel.
    d. Concrete masonry units.
    e. Electrical conduit.
    f. Copper wiring.
    g. Lighting fixtures.
    h. Lamps.
    i. Ballasts.
    j. Electrical devices.
    k. Switchgear and panelboards.
    l. Transformers.
    m. Wood fence.
    n. Tubular steel fence.
    o. Utility poles

2. Construction Waste:

    a. Masonry and CMU.
    b. Lumber.
    c. Wood sheet materials.
    d. Wood trim.
    e. Metals.
    f. Piping.
    g. Electrical conduit.
    h. Packaging: Regardless of salvage/recycle goal indicated in "General" Paragraph above, salvage or recycle 100 percent of the following uncontaminated packaging materials:
        1) Paper.
        2) Cardboard.
        3) Boxes.
        4) Plastic sheet and film.
        5) Polystyrene packaging.
        6) Wood crates.

1.5 Plastic pails.

ACTION SUBMITTALS

A. Waste Management Plan: Submit plan within 30 days of date established for the Notice of Award.

1.6 INFORMATIONAL SUBMITTALS

A. Waste Reduction Progress Reports: Concurrent with each Application for Payment, submit report. Use Form CWM-7 for construction waste and Form CWM-8 for demolition waste. Include the following information:

1. Material category.
2. Generation point of waste.
3. Total quantity of waste in tons.
4. Quantity of waste salvaged, both estimated and actual in tons.
5. Quantity of waste recycled, both estimated and actual in tons.
6. Total quantity of waste recovered (salvaged plus recycled) in tons.
7. Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste.

B. Waste Reduction Calculations: Before request for Substantial Completion, submit calculated end-of-Project rates for salvage, recycling, and disposal as a percentage of total waste generated by the Work.

C. Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.

D. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.

E. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.

F. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.

1.7 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.

PART 2 - PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 PLAN IMPLEMENTATION

A. General: Implement approved waste management plan. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.

1. Comply with operation, termination, and removal requirements in Section 01 50 00

"Temporary Facilities and Controls."

B. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work.

1. Review locations established for salvage, recycling, and disposal.

C. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.
2. Comply with Section 01 50 00 "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection, and noise control.

3.2 SALVAGING DEMOLITION WASTE

A. Salvaged Items for Reuse in the Work: Salvage items for reuse and handle as follows:

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers with label indicating elements, date of removal, quantity, and location where removed.
3. Store items in a secure area until installation.
4. Protect items from damage during transport and storage.
5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.

B. Salvaged Items for Sale and Donation: Not permitted on Project site.

C. Salvaged Items for Owner's Use: Salvage items for Owner's use and handle as follows:

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers with label indicating elements, date of removal, quantity, and location where removed.
3. Store items in a secure area until delivery to Owner.
4. Transport items to Owner's storage area off-site designated by Owner.
5. Protect items from damage during transport and storage.

3.3 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL

A. General: Recycle paper and beverage containers used by on-site workers.

B. Preparation of Waste: Prepare and maintain recyclable waste materials according to recycling or reuse facility requirements. Maintain materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process.

C. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate

recyclable waste by type at Project site to the maximum extent practical according to approved construction waste management plan.

1. Provide appropriately marked containers or bins for controlling recyclable waste until removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.

    a. Inspect containers and bins for contamination and remove contaminated materials if found.

2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
3. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
4. Store components off the ground and protect from the weather.
5. Remove recyclable waste from Owner's property and transport to recycling receiver or processor.

3.4 RECYCLING DEMOLITION WASTE

A. Asphalt Paving: Break up and transport paving to asphalt-recycling facility.

B. Wood Materials: Sort and stack members according to size, type, and length. Separate lumber, engineered wood products, panel products, and treated wood materials.

C. Metals: Separate metals by type.

1. Structural Steel: Stack members according to size, type of member, and length.
2. Remove and dispose of bolts, nuts, washers, and other rough hardware.

3.5 RECYCLING CONSTRUCTION WASTE

A. Packaging:
1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
2. Polystyrene Packaging: Separate and bag materials.
3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.

B. Wood Materials:

1. Clean Cut-Offs of Lumber: Grind or chip into small pieces.
2. Clean Sawdust: Bag sawdust that does not contain painted or treated wood.

3.6 DISPOSAL OF WASTE

A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.

1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

B. Burning: Do not burn waste materials.

C. Burning: Burning of waste materials is permitted only at designated areas on Owner's property, provided required permits are obtained. Provide full-time monitoring for burning materials until fires are extinguished.

D. Disposal: Remove waste materials and dispose of at designated spoil areas on Owner's property.

E. Disposal: Remove waste materials from Owner's property and legally dispose of them.

END OF SECTION

SECTION 01 77 00
CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, Section 22 of the Standard Specifications including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:

1. Substantial Completion procedures.
2. Final completion procedures.
3. Warranties.
4. Final cleaning.
5. Repair of the Work.

B. Related Requirements:

1. Section 01 73 00 "Execution" for progress cleaning of Project site.
2. Section 01 78 39 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.

1.3 ACTION SUBMITTALS

A. Product Data: For cleaning agents.

B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.

C. Certified List of Incomplete Items: Final submittal at Final Completion.

1.4 CLOSEOUT SUBMITTALS

A. Certificates of Release: From authorities having jurisdiction.

B. Certificate of Insurance: For continuing coverage.

1.5 Field Report: For pest control inspection.

1.6 MAINTENANCE MATERIAL SUBMITTALS

A. Schedule of Maintenance Material Items: For maintenance material submittal items specified in other Sections.

1.7 SUBSTANTIAL COMPLETION PROCEDURES

A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list), indicating the value of each item on the list and reasons why the Work is incomplete.

B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.

1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
2. Submit closeout submittals specified in other Division 01 Sections, including project record documents, operation and maintenance manuals, final completion construction photographic documentation, and similar final record information.
3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Engineer. Label with manufacturer's name and model number where applicable.

C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.

1. Advise Owner of pending insurance changeover requirements.
2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
3. Complete startup and testing of systems and equipment.
4. Perform preventive maintenance on equipment used prior to Substantial Completion.
5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
6. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
7. Complete final cleaning requirements, including touchup painting.
8. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Engineer, that must be completed or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. Results of completed inspection will form the basis of requirements for final completion.

1.8 FINAL COMPLETION PROCEDURES

A. Submittals Prior to Final Completion: Before requesting final inspection for determining final completion, complete the following:

1. Certified List of Incomplete Items: Submit certified copy of Engineer's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Engineer. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
2. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
3. Submit pest-control final inspection report.

B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare a final Certificate for Payment after inspection or will notify the Contractor of construction that must be completed or corrected before the certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.9 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.

1. Organize list of spaces in sequential order.
2. Include the following information at the top of each page:
    a. Project name.
    b. Date.
    c. Name of Engineer.
    d. Name of Contractor.
    e. Page number.

3. Submit list of incomplete items in the following format:

    a. MS Excel electronic file. Engineer will return annotated file.
    b. PDF electronic file. Engineer will return annotated file.

1.10 SUBMITTAL OF PROJECT WARRANTIES

A. Time of Submittal: Submit written warranties on request of Engineer for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated, or when delay in submittal of warranties might limit Owner's rights under warranty.

B. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.

1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose- leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
4. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide a bookmarked table of contents at the beginning of the document.

C. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
1. Use cleaning products that comply with Green Seal's GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

PART 3 - EXECUTION

3.1 FINAL CLEANING

A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.

B. Pest Control: Comply with pest control requirements in Section 01 50 00 "Temporary Facilities and Controls." Prepare written report.

C. Construction Waste Disposal: Comply with waste disposal requirements in Section 01 74 19 "Construction Waste Management and Disposal."

3.2 REPAIR OF THE WORK

A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.

B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.

1. Remove and replace chipped, scratched, and broken glass, reflective surfaces, and other damaged transparent materials.
2. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that that already show evidence of repair or restoration.

    a. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.

3. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
4. Replace burned-out bulbs and bulbs noticeably dimmed by hours of use.

END OF SECTION

SECTION 01 78 39
PROJECT RECORD DOCUMENTS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for project record documents, including the following:

1. Record Drawings.
2. Record Specifications.
3. Record Product Data.
4. Miscellaneous record submittals.

B. Related Requirements:

1. Section 01 73 00 "Execution".
2. Section 01 77 00 "Closeout Procedures" for general closeout procedures.

1.3 CLOSEOUT SUBMITTALS

A. Record Drawings: Comply with the following:

1. Number of Copies: Submit one set(s) of marked-up record prints.
2. Number of Copies: Submit copies of record Drawings as follows:

a. Initial Submittal:

1) Submit PDF electronic files of scanned record prints and one of file prints.
2) Engineer will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable.

b. Final Submittal:
1) Submit PDF electronic files of scanned record prints and one set(s) of prints.
2) Print each drawing, whether or not changes and additional information were recorded.

B. Miscellaneous Record Submittals: See other Specification Sections for miscellaneous record-keeping requirements and submittals in connection with various construction activities. Submit annotated PDF electronic files and directories of each submittal.

C. Reports: Submit written report weekly indicating items incorporated into project record

documents concurrent with progress of the Work, including revisions, concealed conditions, field changes, product selections, and other notations incorporated.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued. Records shall be kept up to date with all entries checked by the Engineer before the Work is buried or covered up. The Contractor shall make the Record Drawings available for review by the Engineer at any time.

1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.

    a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
    b. Accurately record information in an acceptable drawing technique.
    c. Record data as soon as possible after obtaining it.
    d. Record and check the markup before enclosing concealed installations.
    e. Cross-reference record prints to corresponding archive photographic documentation.

2. Content: Types of items requiring marking include, but are not limited to, the following:
    a. Dimensional changes to Drawings.
    b. Revisions to details shown on Drawings.
    c. Locations and depths of underground utilities.
    d. Revisions to routing of piping and conduits.
    e. Revisions to electrical circuitry.
    f. Actual equipment locations.
    g. Changes made by Change Order or Construction Change Directive.
    h. Changes made following Engineer's written orders.
    i. Details not on the original Contract Drawings.
    j. Field records for variable and concealed conditions.
    k. Record information on the Work that is shown only schematically.

3. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.

4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.

5. Mark important additional information that was either shown schematically or omitted from original Drawings.

6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.

B. Record Digital Data Files: Immediately before inspection for Certificate of Substantial Completion, review marked-up record prints with Engineer. When authorized, prepare a full set of corrected digital data files of the Contract Drawings, as follows:

1. Format: Annotated PDF electronic file with comment function enabled.
2. Incorporate changes and additional information previously marked on record prints. Delete, redraw, and add details and notations where applicable.
3. Refer instances of uncertainty to Engineer for resolution.
4. Engineer will furnish Contractor one set of digital data files of the Contract Drawings for use in recording information.

    a. See Section 01 33 00 "Submittal Procedures" for requirements related to use of Engineer's digital data files.
    b. Engineer will provide data file layer information. Record markups in separate layers.

C. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.

1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
2. Format: Annotated PDF electronic file with comment function enabled.
3. Identification: As follows:

    a. Project name.
    b. Date.
    c. Designation "PROJECT RECORD DRAWINGS."
    d. Name of Engineer.
    e. Name of Contractor.

2.2 MISCELLANEOUS RECORD SUBMITTALS

A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

B. Format: Submit miscellaneous record submittals as PDF electronic file or scanned PDF electronic file(s) of marked-up miscellaneous record submittals.

1. Include miscellaneous record submittals directory organized by Specification Section number and title, electronically linked to each item of miscellaneous record submittals.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.

B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record

documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Engineer's reference during normal working hours.

END OF SECTION

SECTION 02 41 13
SITE DEMOLITION

PART 1 - GENERAL

1. RELATED DOCUMENTS

   A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

2. SECTION INCLUDES

   B. Demolition and removal as indicated on Drawings and as required to accommodate new work, including, but not limited to:

      1. Saw-cutting and removal of asphalt concrete, concrete paving and footings.
      2. Removal and capping of existing underground utilities.
      3. Existing selective vegetation removal
      4. Fencing/Gating and associated footings removal and/or adjustments

   C. Salvage of existing materials, products, and equipment as indicated on Drawings.

3. RELATED WORK SPECIFIED ELSEWHERE

   D. Division 31 Section "Site Clearing".

   E. Division 31 Section "Grading".

   F. Division 31 Section "Excavation and Fill for Utilities".

   G. Division 31 Section "Excavation and Fill for Structures".

   H. Division 32 Section "Site Concrete Work".

   I. Division V Section 39 “Asphalt Concrete” of the Special Provisions.

4. PROJECT CONDITIONS

   J. Dust control:

      1. Use all means necessary to prevent spread of dust during performance of work. Thoroughly allay dust at all times.

      2. Use of reclaimed water shall conform to requirements and guidelines of governing health authorities and be specifically approved by Agency Representative.

   K. Burning on-site: Not permitted.

   L. Protection: Use all means necessary to protect existing objects designated to remain, including structures, utilities, flora, and trees. In the event of damage to existing objects designated to remain, repair or replace objects to the satisfaction of Agency Representative.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Provide materials, equipment, shoring, and appurtenances of every kind required for completion of demolition work, including barricades, handrails, and waste receptacles.

B. Explosives: Not permitted.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine surfaces for conditions that will adversely affect execution, permanence, and quality of work.

B. Do not proceed with work until unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Job site examination:

1. Prior to commencing work, examine entire job site for objects designated to be removed and protected, and limits of demolition.
2. Locate existing active utility lines and provide for their protection.

B. Clarification:

1. Drawings do not indicate all objects existing on job site.
2. Before commencing work, verify with Owner which objects are to be removed by Contractor, which objects are to be removed by Owner, and which objects are to be preserved.

C. Scheduling: Contractor to avoid interference with use of, and passage to and from, adjacent buildings and facilities. Contractor to avoid interference with use of the public sidewalk and street traveled way.

D. Protection of utilities:

1. Preserve and maintain in operating condition all active utilities traversing site. Reroute, or remove and cap those which interfere with work of this Project. Coordinate extent of work with Agency Representative.
2. Expeditiously repair damaged utilities at no cost to the Agency.

E. Protection of flora:

1. Construct a physical barrier between existing flora to remain and area of new construction. See Tree Protection notes on planting plans and in specifications.
2. Protect existing trees, not otherwise indicated to be removed, against unnecessary cutting, or breaking, skinning, or bruising of bark. All trees to remain are required to have a protective fence around the tree at the drip line. Smothering of trees with stockpiled building materials or excavated materials within the drip line is not

allowed. Pedestrian or vehicular traffic and parking of vehicles within drip line is not allowed.

3. Refer to Tree Notes on Demolition Plans.

3.3 DEMOLITION AND REMOVAL

A. Demolition and removal of materials shall be by skilled and properly equipped workers. Materials and equipment to be salvaged shall be removed under the direction of or by crafts persons who would normally install such items.

B. Cut concrete and asphalt concrete slabs, walks, pavement, and curbs with a concrete saw to a 2 inch depth along all joint lines before breaking out the portion to be removed.

C. Demolish and remove all foundations, walls, concrete slabs, asphalt concrete pavement, footings and other items designated for removal, or which are necessary to be removed to make way for new construction work.

3.4 SALVAGE

A. All materials removed shall become the property of Contractor to dispose of or salvage, with the exception of items designated on Drawings to be subsequently reinstalled or returned to County or items "tagged" as salvage for return to County and not previously removed by County.

B. Identify (tag or similarly mark indelibly in an inconspicuous location) each salvage item, including detached component parts, with an extensive description of salvage item or component part's use, installed location, date of removal, and similar pertinent information as may be required for reinstallation or future reference by Agency. For salvage items not reinstalled in the Work, box, package or otherwise protect, and transport to Agency-designated locations.

C. Dispose of all materials.

D. Do not sell salvage materials to the general public at job site. This shall not preclude sale to and removal from job site of salvage materials to duly licensed salvage companies.

E. Temporarily store removed materials for subsequent reinstallation at confined areas designated by Agency Representative. Carefully handle removed materials to prevent damage to areas outside immediate locations of the Work.

3.5 DISPOSAL

A. Except as specified otherwise, load debris resulting from demolition and removal as it accumulates, haul away from site promptly, and dispose of in a legal manner.

B. Prevent debris from migrating outside of construction areas. Use County-approved methods and materials to confine debris to construction areas. Failure to contain demolition debris is not permitted.

C. In lieu of disposal off-site, asphalt concrete paving debris, resulting from the work of this Project only, may be crushed for limited use as recycled fill and asphalt concrete paving base course materials as specified in Division 31 Section "Grading". Imported asphalt concrete debris may not be broken, crushed, or otherwise processed on-site nor added to on-site asphalt concrete paving debris. Asphalt concrete paving debris used as recycled fill

and asphalt concrete paving base course materials shall conform to SSPWC Section 200-2.4, except as follows:

1. Gradation shall conform to Fine Gradation per Table 200-2.4.2 (A).
2. Permission for on-site crushing operations is at Agency discretion. Where on-site crushing is permitted, conform to Agency noise and dust control requirements, including scheduling of crushing operations.
3. Additionally, perform tests and submit records of test results for crushed asphalt concrete paving used as recycled fill materials in accord with SSPWC Section 203-7.2.2.

END OF SECTION

SECTION 02 41 14
PAVING REMOVAL

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. This section describes the sawcutting of the existing pavement at the locations shown on the Contract Documents.

1.02 REFERENCED SECTIONS

A. Division 31 Section "Site Clearing".
B. Division 32 Section "Site Concrete Work".
C. Division V Section 39 “Asphalt Concrete” of the Special Provisions

CITED STANDARDS

A. Comply with the California State Department of Transportation (Caltrans) Standard Specifications.

NOTED RESTRICTIONS

(None noted)

QUALITY CONTROL

(None listed)

SUBMITTALS

(None listed)

DELIVERABLES

(None listed)

PART 2 - PRODUCTS

2.01 MATERIALS

None.

PART 3 - EXECUTION

3.01 METHOD

A. The Contractor shall sawcut the existing pavement with a straight sawcut edge as shown on the plans or where directed by the Engineer. All work must be done in a workman-like manner. All sawcuts shall be done in a wet condition. The Contractor shall contain and capture the slurry so as not to pollute adjacent grounds and waterways.

B. Sawcutting of sidewalk, where curbs are reconstructed, shall be required at the limits of work.

C. The depth of the sawcut shall be established from the contract plans or based on the depth necessary to properly install the proposed materials.

D. At locations where new full-depth pavement will meet existing pavement, one sawcut line is shown in the details. In addition, a second, less deep, sawcut shall be made a minimum of two (2) feet beyond the indicated sawcut so that this area can be milled and tack coated. The new wearing course shall extend to this second sawcut. See details concerning meeting existing pavement in the Contract Documents for additional requirements on this item.

END OF SECTION

SECTION 03 20 00
CONCRETE
REINFORCING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections apply to work of this section.

1.2 DESCRIPTION OF WORK

A. The work of this section includes labor, materials, hardware, equipment, transportation and services required to fabricate and place all reinforcement for cast-in-place concrete including bars, welded wire fabric, ties and supports shown on the drawings and as specified. Prestressing reinforcement is specified in Post-Tensioned Concrete and/or Precast Concrete sections of the specifications.

1.3 ENVIRONMENTAL OBJECTIVES

A. The Owner has established environmental goals and strategies for achieving them for this project based upon the LEED® Green Building Rating System for New Construction & Major Renovations Version 2009, as developed by the U.S. Green Building Council. Refer to Division 01 Section "Sustainable Design Requirements."

B. Manufacturer to supply documentation of level of compliance or non-compliance with the following requirements before consideration as an "acceptable manufacturer:"

1. The following are mandatory requirements for the overall project:

a. The material(s) in the product(s) supplied shall have a recycled content such that the sum of the post-consumer recycled content plus one-half of the pre-consumer content constitutes at least **6%** of the total value of the material in the project, if feasible and economical.

b. **50%** of the product(s) supplied is extracted, processed, and manufactured regionally within a radius of 500 miles of this project, if feasible and economical.

1.4 QUALITY CONTROL

A. The Contractor is responsible for management of quality control on the project, including verification of the compliance of the workmanship and materials furnished by his subcontractors and suppliers.

B. Codes and Standards: Comply with all provisions of the following codes, specifications

and standards except where more stringent requirements are shown or specified:

1. ACI 301 - "Specifications for Structural Concrete for Buildings".

2. ACI 117 - 'Specifications for Tolerances for Concrete Construction and Materials."

3. Concrete Reinforcing Steel Institute (CRSI), "Manual of Standard Practice".

4. ANSI/AWS D1.4 “Structural Welding Code – Reinforcing Steel”

1.5 SUBMITTALS

A. Shop Drawings: Submit shop drawings for all reinforcing steel and related accessories for the Engineer's approval. Shop drawings shall show arrangement and layout, bending and assembly diagrams, bar schedules, stirrup spacing, splicing of bars, laps of bars, and layout/configuration of all necessary miscellaneous support bars in accordance with CRSI Standards.

B. Mill Certificates: Submit, for record, mill certificates and/or test results signed by Contractor and Producer, for all reinforcement.

C. Product Data: Submit manufacturer’s product data with application and installation instructions for proprietary materials and items, including mechanical splices, hooked anchorage systems, large-headed stud punching shear reinforcement, dowel bar substitute systems, and dowel bar sleeves.

D. International Code Council (ICC) Evaluation Service Reports: Submit evaluation service reports of approval from ICC Evaluation Service, Inc. for mechanical splice, hooked anchorage systems, large-headed stud punching shear reinforcement and dowel bar substitute systems.

1.6 PREINSTALLATION CONFERENCE

A. The Reinforcing-Placing subcontractor shall attend the Pre-Concrete Conference conducted by the Concrete Contractor as described in Specification Section “Cast-in-Place Concrete”.

1.7 TESTING AND INSPECTION

A. In advance of fabrication and shipment to the project, the fabricator shall have performed all tests and inspections of reinforcing steel as specified herein.

B. Any testing laboratory retained to run tests required by this specification shall meet the basic requirements of ASTM E 329.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Reinforcement:

1. Reinforcing materials shall be delivered from the mill in bundles that are identified as to heat number and manufacturer and accompanied with mill and analysis test reports and an affidavit from the fabricator/supplier stating that the material conforms to the requirements of the governing ASTM specification listed herein.

2. Deformed bar material that is not identifiable according to the criteria listed above shall be tested for tensile strength and bend tests according to ASTM A 615 on a sample of 2 bars for each ten tons or fraction thereof of unidentified material for each bar size. The bars shall be a minimum of 24 inches long. Bend tests are not required for #14 and # 18 bars. Fabricator/supplier shall submit the results of such tests for record.

3. Reinforcing Bars: Reinforcing bars shall conform to ASTM A 615, Grade 75 as noted on the drawings.

4. Reinforcing Bars: Reinforcing bars shall conform to ASTM A 615 Grade 60 as noted on the drawings.

5. Special Requirements for Grade 60 Reinforcing Bars: ASTM A 615 Grade 60 Reinforcing bars used as longitudinal reinforcing in locations as noted on the drawings shall additionally comply with the following requirements.

   a. The actual yield strength based on mill tests shall not exceed the nominal yield strength fy by more than 18,000 psi.
   b. The ratio of the actual tensile strength to the actual yield strength is not less than 1.25.

6. Reinforcing Bars: Reinforcing bars used as longitudinal reinforcing in locations as noted on the drawings shall conform to ASTM A 706.

7. Reinforcing Steel: Reinforcing steel used as transverse reinforcing or as spiral reinforcing as noted on the drawings shall conform to ASTM A 1035.

8. Weldable Reinforcing Bars: All reinforcing bars noted on the drawings as being required to be welded shall conform to ASTM A 706.

9. Galvanized Reinforcing Steel: Provide galvanized reinforcing bars at the locations indicated on the drawings. Galvanized reinforcing bars shall conform to ASTM A 767 Class II (2.0 oz. zinc PSF), hot dipped galvanized after fabrication and bending. Bars that are to be galvanized shall conform to the type of steel required for the given situation as noted on the drawings.

10. Epoxy-Coated Reinforcing Steel: Provide epoxy coated reinforcing bars at the locations indicated on the drawings. Epoxy coated reinforcing bars shall conform to ASTM A 775. Bars that are to be epoxy coated shall conform to the type of steel required for the given situation as noted on the drawings.

11. Epoxy-Coated Fabricated Reinforcing Steel: Provide reinforcing bars that are epoxy-coated after fabrication at the locations indicated on the drawings. Reinforcing bars that are epoxy-coated after fabrication shall conform to ASTM A 934. Bars that are to be epoxy-coated shall conform to the type of steel required for the given situation as noted on the drawings.

12. Use Reinforcing steel made from 90% recycled material, 2/3 of which shall be post-consumer material. A minimum of 50% of the material in the reinforcement must have been extracted, harvested, or recovered as well as manufactured, within 500 miles of the project site.

13. Plain Steel Welded Wire Reinforcement: ASTM A 185 with a yield strength of 65,000 PSI. Provide in flat sheets only.

14. Deformed-Steel Welded Wire Reinforcement: ASTM A 497 with a yield strength of 70,000 PSI. Provide in flat sheets only.

15. Galvanized Plain-Steel Welded Wire Reinforcement: ASTM A 185, fabricated from galvanized steel wire into flat sheets.

16. Epoxy Coated Plain-Steel Welded Wire Reinforcement: ASTM A 884, Class A, plain steel.

17. Epoxy Coated Deformed-Steel Welded Wire Reinforcement: ASTM A 884, Class A, deformed steel.

18. Strands: Uncoated seven wire, one half inch diameter, stress relieved 270 ksi strand low relaxation type, ASTM A 416 "Specification for Uncoated Seven Wire Stress Relieved Strand for Prestressed Concrete" and "Specification for Unbonded Single Strand Tendons" as published by the Post-Tensioning Institute.

19. Prestressing Bars: All prestressing bars shall be deformed threadbars conforming to ASTM A 722 "Specification for Uncoated High Strength Steel Bar for Prestressing Concrete", with a minimum ultimate tensile strength of 150 KSI and other properties as specified on page 11-21 of the PCI Design Handbook, fifth edition. Threadbars, plate anchorages and couplings shall be furnished by Dywidag Systems International or Williams unless approved otherwise in writing by the Engineer.

20. Wire: Smooth wire for spiral reinforcement shall conform to ASTM A 82 with a minimum yield strength of 70,000 PSI.

21. Epoxy-Coated Plain-Steel Wire: ASTM A 884, Class A, plain-steel wire.

22. Joint Dowel Bars: Smooth bars used to dowel across slab-on-grade construction joints shall conform to ASTM A 615, Grade 40 or ASTM A 36, plain-steel bars. Cut bars true to length with ends square and free of burrs

23. Epoxy-Coated Joint Dowel Bars: Smooth epoxy-coated bars used to dowel across slab-on-grade construction joints shall conform to ASTM A 775 with ASTM A 615, Grade 40 or ASTM A 36 plain-steel bars. Cut bars true to length with ends square and free of burrs.

24. Dowel Bar Sleeves: Plastic or gage metal (26 ga. min.) sleeves with an inside diameter of 1/16 inch greater than the dowel bar that it encases, that have the strength, durability, and design to provide free movement of the dowel relative to the concrete slab and that are specifically manufactured for this purpose.

25. Alternate Slab-on-Grade Joint Load Transfer Systems: A system that consists of flat, ASTM A 36 plate that is saw cut into a square or rectangular shape and is embedded into or encased by a plastic sleeve that allows movement in both lateral directions but not in the vertical direction. Acceptable systems are manufactured by PNA Construction Technologies with products known by the names “Diamond Dowel System” and “PD^3 Basket” and Greenstreak Group Inc. with products known as “Speed Plate’ and “Double-Tapered Basket”.

26. Tie Wire: Tie wire shall be annealed steel tie wire, minimum 16 gauge.

    a. Tie wire in architecturally exposed concrete shall be plastic coated or stainless steel.
    b. Tie wire for epoxy-coated reinforcement shall be epoxy-coated.
    c. Tie wire for galvanized reinforcement shall be galvanized.

27. Headed Steel Stud Punching Shear Reinforcement: Punching shear reinforcement using headed studs welded to flat bars shall be manufactured in conformance with ASTM A1044 and approved by the ICC Evaluation Service, Inc. as expressed in an ICC Evaluation Report for use as punching shear reinforcement for slabs and footings designed in accordance with ACI 421.1. The following are acceptable products:,“Decon Studrails”, Decon “Dayton Shear Resistance System (DSR) D-140”, Dayton Superior Corporation “Suncoast Stud Reinforcement System”, Suncoast Post-Tension, Ltd.

28. Supports for Reinforcement: Provide supports for reinforcement including bolsters, chairs, spacers and other devices for spacing, supporting and fastening reinforcing bars and welded wire fabric in place. Use wire bar type supports complying with CRSI recommendations.

    a. Slabs-on-Grade: Use precast concrete bar supports (dobies) or supports with sand plates or horizontal runners designed for use on ground.

b. Spread Footing Bottom Reinforcement: Use precast concrete bar supports (dobies) or chairs designed for soil-supported slabs.
c. Mat Foundation: Use precast concrete bar supports (dobies), chairs designed for soil-supported slabs, or poured-in-place concrete curbs.
d. Exposed to View Concrete: Provide supports with legs which are plastic protected stainless steel protected (CRSI, Class 2).
e. Support of Epoxy-Coated Reinforcement: Provide epoxy-coated or other dielectric-polymer-coated wire bar supports to support epoxy-coated reinforcement.
f. Support of Galvanized Reinforcement: When NOT exposed to view, provide galvanized wire bar supports to support galvanized reinforcement. In all exposed to view conditions provide supports with legs which are plastic protected stainless steel protected (CRSI, Class 2).

B. Coating Repair Materials: Repair damaged areas of epoxy-coated or galvanized reinforcement using the following products.

1. Epoxy Repair Coating: Liquid, two-part, epoxy repair coating compatible with epoxy coating on reinforcement and complying with ASTM A 775.

2.2 Zinc Repair Material: ASTM A 780, zinc-based solder, paint containing zinc dust, or sprayed zinc shall be used to repair damaged areas of galvanized reinforcement.

2.3 SPLICES

A. End Bearing Compression Splices: Members with end bearing compression splices shall have vertical bars saw cut or otherwise finished for true bearing. Bar ends shall terminate in flat surfaces within 1 1/2 degrees of a right angle to the axis of the bars and shall be fitted within 3 degrees of full bearing after assembly. Splice bars shall be held in concentric contact by a suitable device. The following are acceptable end bearing compression devices:

"Speed Sleeve", Erico Products, Inc. "G-Loc", BarSplice Products, Inc.
or other Engineer-approved product.

B. Mechanical Tension Splices:

1. Mechanical splices shall conform to Type 1 and Type 2 splices.

a. Type 1 splice shall develop 1.25 times the specified yield strength of the splice bar.
b. Type 2 splice shall meet the requirements of Type 1 splice and, in addition, develop the full tensile strength of the splice bar.

2. Splices shall be approved by the ICC-Evaluation Service, Inc and shall have the Evaluation Report submitted for Engineer review.

3. The bar ends that are to attach to the splice shall be prepared and installed in

accordance with the manufacturer's requirements.

4. The following are acceptable mechanical tension splices (splices qualified for use with grade 75 bars are parenthetically noted): "BarLock, S-Series", Dayton Superior.
"US/MC-SAE Mechanical Coupler", Dayton/Richmond, Inc. "DB Grout Sleeve", Dayton/Richmond "ZAP Screwlok", BarSplice Products, Inc. (qualified for use with grade 75 bars) "BPI Grip XL System", Barsplice Products, Inc. "Taper Threaded Grip Twist System", Barsplice Products, Inc. "Lenton Coupler", Erico Products, Inc. (for grade 75 bars, use only "Standard Coupler") "NMB Splice Sleeve", Splice Sleeve North America" (qualified for grade 75 #7 bars and higher) "BarLock, L-Series", Dayton Superior "Taperlok Couplers", Dayton Superior "Lenton Interlok", Erico Products, Inc. "Griptec", Dextra Manufacturing Co. or other Engineer-approved product.

C. Dowel Bar Replacement: All grade 60 reinforcing steel dowel bars shown on the drawings crossing concrete construction joint surfaces with inserts cast flush against the form and having reinforcing bars connected to the insert in a subsequent concrete pour shall conform to the following:

1. Splice connection to the insert shall develop the 1.25 times the specified yield strength and the full tensile strength of the spliced bar.

2. Splices shall be approved by the ICC Evaluation Service, Inc. as expressed in an ICC Evaluation Service Report which shall be submitted for review.

3. The following are acceptable products (for use only with grade 60 bars):
4. "Lenton Form Saver", Erico Products, Inc. "DB-SAE Dowel Bar Splicer", Dayton/Richmond, Inc. or other Engineer-approved product.

D. Hooked Anchorage Replacement: Reinforcing bar terminations shall be manufactured out of ASTM A 576 material and shall develop the full tensile strength of the bar when installed at the manufacturer's recommended depth.

1. The anchorage shall be approved by the ICC Evaluation Service Inc. as expressed in an ICC Evaluation Service Report which shall be submitted for review.
2. The following are acceptable products (for use only with grade 60 bars): "Lenton Terminator", Erico Products, Inc. or other Engineer-approved product.

PART 3 - EXECUTION

3.1 FABRICATION AND DELIVERY

A. Bending and Forming: Fabricate bars of indicated sizes and accurately form to shapes and lengths indicated and required, by methods not injurious to materials. Do not heat reinforcement for bending. Bars shall be free from injurious defects, have a workman-like finish with no excessive rust and/or pitting and have no unusual kinks or bends.

B. Marking and Shipping: Bundle reinforcement and tag in accordance with Section 7.4.5 of the CRSI “Manual of Standard Practice”. Transport and store at site so as not to damage material. Keep sufficient supply of tested, approved and proper reinforcement at the site to avoid delays. Maintain reinforcing bars free of mud, dirt, grease, or other coating.

C. Repair of Epoxy-Coated Reinforcing: Repair cut and damaged epoxy coatings on fabricated reinforcing before delivery with epoxy repair coating according to ASTM D 3963

3.2 PLACING REINFORCEMENT

A. Comply with CRSI recommended practice for "Placing Reinforcing Bars", for details and methods of reinforcement placement and supports and as herein specified.

B. Before placing reinforcement and again before concrete is placed, clean reinforcement of loose rust and mill scale, earth, ice and other materials which reduce or destroy bond with concrete.

C. Accurately position, support and secure reinforcement against displacement by formwork, construction, or concrete placement operations. Locate and support reinforcing by chairs, runners, bolsters, spacers or hangers, as required. Exercise particular care to maintain proper distance and clearance between parallel bars and between bars and forms. Provide spreaders and spacers to hold steel in position. Support steel at proper height upon approved chairs.

D. Place reinforcement to obtain at least minimum coverages for concrete protection. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement operations. Set tie wires so ends are directed into concrete, not toward exposed concrete surfaces.

E. Support of Spread Footing Reinforcing Steel

1. Bottom Steel: Support bottom reinforcing mat to provide the specified clearance to the bars. Spacing between supports shall not exceed 4'-0" centers each way.

2. Top Steel: Support top reinforcing on steel angle frames braced in both directions or on special standee support bars. Spacing between supports shall not exceed 4'-0" centers each way. The depth of the supports shall provide the specified clearance from the bars to the top of the concrete. The design of the support steel shall be the responsibility of the Contractor in accordance with Concrete Reinforcing Steel Institute (CRSI), “Manual of Standard Practice”.

F. Support of Mat Foundation Reinforcing Steel

1. Bottom Steel: Support bottom reinforcing mat to provide the specified clearance to the bars. Spacing between supports shall not exceed 4'-0" centers each way.

2. Top Steel: Support top reinforcing on steel angle frames braced in both directions or on special standee support bars. Spacing between supports shall not exceed 4'-0" centers each way. The depth of the supports shall provide the specified clearance from the bars to the top of the concrete. The design of the support steel shall be the responsibility of the Contractor in accordance with Concrete Reinforcing Steel Institute (CRSI), “Manual of Standard Practice”.

G. Install welded wire reinforcement in as long lengths as practicable. Lap adjoining pieces at least one full mesh plus two inches and lace splices with wire. Offset end laps in adjacent widths to prevent continuous laps in either direction.

H. Coordinate with other trades and expedite materials and labor to avoid omissions and delay.

I. Install waterproof membrane or vapor barrier as specified prior to placing steel for concrete slabs-on-grade.

J. Extend reinforcement continuous through construction joints unless otherwise shown on the drawings.

K. Slab-on-Grade Joint Dowel Bars: Support slab-on-grade joint dowel bars independently of support for slab reinforcement on soil supported slab bolsters or specially manufactured cradles such that dowel bar remains parallel to slab surface and at right angles to joint during concreting operations. Lightly coat the exposed end of the dowel with a paraffin-base lubricant, asphalt emulsion, form oil, or grease or use a dowel bar sleeve.

L. Alternate Slab-on-Grade Joint Load Transfer Systems: Install the alternate load transfer system in accordance with the manufacturer’s instructions such that the largest plane of the flat plate is parallel to the plane of the subgrade on which the slab is bearing.

M. Provide and place additional reinforcing steel at all sleeves and openings in beams, slabs and walls as specified on the drawings. Where sleeves or openings not shown on the drawings interrupt the reinforcement, consult with Engineer for instructions for placing and splicing of bars. Provide required additional reinforcing steel at no additional cost to the Owner.

N. Epoxy-Coated Reinforcement: Use epoxy-coated steel tie wires to fasten epoxy-coated reinforcement. Repair cut and damaged epoxy coatings with epoxy repair coating according to ASTM D 3963.

O. Galvanized Reinforcement: Use galvanized steel tie wires to fasten galvanized reinforcement. Repair cut and damaged zinc coatings with zinc repair material.

3.3 SPLICING REINFORCING STEEL

A. Provide splice as indicated on the drawings. Splice reinforcing bars only at locations shown on the structural drawings and approved shop drawings. Unauthorized or unscheduled splices not approved by the Engineer in writing will not be accepted.

B. All lap splices in reinforcing steel shall be contact lap splices unless detailed otherwise on the drawings.

C. Maintain proper cover between reinforcing bars at splices.

D. Lap unscheduled reinforcing bars not otherwise specified a minimum of 30 bar diameters at splices. Lap welded wire fabric a minimum of one full wire mesh plus two inches.

E. Reinforcing Steel Placement in Mat Foundations

1. Size, length, spacing, and location of all mat reinforcing steel is shown on the mat plans and details. See details on the drawings for required stagger pattern of top and bottom bar splices and for sequence of placing mat reinforcing steel layers.

2. The number of splices shall be minimized by using bar runs of 60'-0" as much as possible. Unless noted otherwise, continuous top reinforcing bars shall be spliced along column centerlines. Continuous bottom reinforcing bars shall be spliced mid-way between columns.

3. Provide Class B tension lap splices for all bars #11 and smaller. Stagger splices as shown in the typical details.

4. Avoid splices of #14 and #18 bars where possible. Where required, a mechanical tension splice as specified shall be provided. No more that 50% of such bars shall be spliced in any 5'-0" width of mat cross-section. Spliced bars shall be staggered with un-spliced bars.

F. Manufacturer of mechanical tension splice shall be present for first day's installation.

3.4 WELDING REINFORCING STEEL

A. Welding reinforcing steel is permitted only where specifically shown on the drawings. All welding shall conform to AWS D1.4. Only weldable reinforcing steel conforming to ASTM A 706 or deformed bar anchors conforming to ASTM A 496 shall be permitted. ASTM A 615 bars may <u>not</u> be welded for structural use.

B. Tack welding of reinforcement shall only be allowed for preassembled mats and cages.

3.5 SHRINKAGE AND TEMPERATURE REINFORCEMENT

A. Provide shrinkage and temperature reinforcement as indicated on the drawings at right angles to main top and bottom bars for all structural slabs unless detailed otherwise on the drawings.

3.6 PLACEMENT OF WELDED WIRE REINFORCEMENT

A. Wherever welded wire reinforcement is specified as reinforcement in pan-formed beams or slabs, it shall be continuous and properly lapped one full wire spacing plus 2" across the entire concrete surface and not interrupted by beam or girders.

3.7 REINFORCEMENT IN JOIST DISTRIBUTION RIBS

A. Provide reinforcement in ribs, minimum one - #5 continuous top and bottom unless indicated otherwise on the drawings.

3.8 REINFORCEMENT IN COMPOSITE METAL DECK SLAB

A. Composite metal deck slabs shall be reinforced as indicated on the drawings.

B. Extra Reinforcement Over Girders: Provide additional reinforcing steel over interior girders as shown on the drawings.

C. Placement of Slab Reinforcement: Provide bolsters, high chairs, and/or additional reinforcing as shown in details on the drawings to support the reinforcing with the clear cover shown on the drawings.

3.9 FIBER-REINFORCED CONCRETE IN TOPPING SLABS, SIDEWALKS, AND DRIVEWAYS

1. Provide fibers of the type and at the dosage rate shown on the drawings.

2. The fiber-reinforced concrete shall be produced in accordance with ASTM C 1116 and have a residual strength of 80 psi when tested in accordance with ASTM C 1399.

3.10 REINFORCEMENT AROUND OPENINGS IN COMPOSITE METAL DECK SLABS

A. For all openings in metal deck not framed with structural steel and greater than 10" in width in either direction, provide additional reinforcing steel as shown in details on the drawings.

3.11 REINFORCEMENT IN PAN-FORMED BEAM SLABS

A. Reinforcement: Provide reinforcing in pan-formed beam slabs as shown on the drawings.

B. Placement of Slab Reinforcement: Provide required bar supports and additional reinforcing as shown in details on the drawings to support slab reinforcing with the clear cover shown on the drawings.

3.12 REINFORCEMENT IN GRADE BEAMS

A. Provide reinforcing in grade beams as shown on the drawings.
B. Bar Support for Grade Beam Cages: Grade beam bottom steel shall be supported at 5'-0" maximum centers using beam bolsters that provide 3" bottom cover to the reinforcing steel. Beam bolsters used shall be designed and manufactured for support on soil.

3.13 REINFORCEMENT IN TOPPING SLABS

A. In addition to fiber reinforcing, provide welded smooth wire reinforcement minimum 6 x 6 W1.4 x W1.4 in all topping slabs unless specified otherwise on the drawings.

3.14 REINFORCEMENT IN HOUSEKEEPING PADS

A. In addition to fiber reinforcing, provide welded smooth wire reinforcement 6 x 6 W2.9 x W2.9 minimum in all housekeeping pads supporting mechanical equipment unless detailed otherwise on the drawings.

3.15 REINFORCEMENT IN SIDEWALKS

A. In addition to fiber reinforcing, provide welded smooth wire reinforcement minimum 6 x 6 W1.4 x W1.4 in all sidewalks unless detailed otherwise in the Contract Documents.

3.16 MECHANICAL AND PLUMBING REQUIREMENTS

A. Refer to Mechanical and Plumbing Drawings for concrete requiring reinforcing steel. Such reinforcement shall be furnished as part of the work of this section.

3.17 QUALITY ASSURANCE TESTING AND INSPECTION DURING CONSTRUCTION

A. See Testing Laboratory Services section of these Specifications for reinforcing inspection and testing requirements.

END OF SECTION

SECTION 03 30 00
CAST-IN-PLACE
CONCRETE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 01 Specification sections, apply to work of this section.
B. Division 3 “Concrete Reinforcing”
C. Division 32 “Site Concrete Work”
D. Division XI Section 90 “Concrete” of the Special Provisions

1.2 DESCRIPTION OF WORK

A. Extent of concrete work is shown on drawings, including schedules, notes and details which show size and location of members and type of concrete to be poured. Furnish all labor, materials, services, equipment and hardware required in conjunction with or related to the forming, delivery and pouring of all cast-in-place concrete Work.

1.3 ENVIRONMENTAL OBJECTIVES

A. The Owner has established environmental goals and strategies for achieving them for this project based upon the LEED® Green Building Rating System for New Construction & Major Renovations Version 2009, as developed by the U.S. Green Building Council. Refer to Division 101 Section "Sustainable Design Requirements.”, if feasible and economical.

B. Manufacturer to supply documentation of level of compliance or non-compliance with the following requirements before consideration as an "acceptable manufacturer:"

1. The following are mandatory requirements for the overall project:

a. The material(s) in the product(s) supplied should have a recycled content such that the sum of the post-consumer recycled content plus one-half of the pre-consumer content constitutes at least **6%** of the total value of the material in the project, if feasible and economical.
b. **50%** of the product(s) supplied is extracted, processed, and manufactured regionally within a radius of 500 miles of this Project, if feasible and economical.

1.4 QUALIFICATIONS

A. The concrete supplier shall have a minimum of five years experience in manufacturing ready-mixed concrete products complying with ASTM C 94 requirements for production facilities and equipment. The supplier must be certified according to the National Ready Mixed Concrete Association's Certification of Ready Mixed Concrete Production Facilities.

B. The concrete contractor shall have a minimum of five years experience with installation of concrete similar in material, design and extent to that indicated for this Project and whose work has resulted in construction with a record of successful –service performance.

C. Any testing laboratory retained by the Contractor or Subcontractor to run tests required by this specification but not performed by the Owner's testing laboratory shall meet the basic requirements of ASTM E 329.

1.5 QUALITY CONTROL

A. The Contractor is responsible for control of quality, including workmanship and materials furnished by his subcontractors and suppliers.

B. Codes and Standards: Comply with provisions of following codes, specifications and standards, except where more stringent requirements are shown or specified:

1. ACI 301 – "Specifications for Structural Concrete for Buildings".

2. ACI 117 – 'Specifications for Tolerances for Concrete Construction and Materials."

3. ACI 318 – "Building Code Requirements for Reinforced Concrete".

4. Concrete Reinforcing Steel Institute (CRSI), "Manual of Standard Practice".

5. Steel Construction Manual, latest edition, American Institute of Steel Construction

C. Document Conflict and Precedence: In case of conflict among Contract Documents and Contract Specifications, request clarification from the Engineer through "Request for Information" (RFI) process before proceeding with the Work. In case of a conflict between and/or among the structural drawings and specifications, the strictest interpretation shall govern, unless specified otherwise in writing by the Engineer.

D. Inspection and Testing of the Work: Materials and installed work may require testing and retesting, as directed by the governing building code, the Engineer,

or the Owner at any time during progress of work.

1. The Contractor shall provide forty-eight (48) hours notification to the Owner's Testing Laboratory of construction operations including the project schedule to allow the Testing Laboratory to schedule inspections. Failure to sufficiently notify may result in additional costs incurred by the Testing Laboratory that may be back-charged to the Contractor by the Owner.

2. The Contractor shall cooperate with laboratory personnel and provide access to the work.

3. The Contractor shall make arrangements with and for the Owner's Testing Laboratory for off-site inspection of material stockpiles, concrete delivery vehicles, concrete material storage facilities, and concrete-batching facilities.

4. If required, the Contractor shall furnish casual labor, equipment, and facilities as required for sampling and testing by the laboratory and otherwise facilitate the required inspections and tests.

5. Inspection or testing by the Owner does not relieve the Contractor of his responsibility to perform the Work in accordance with the Contract Documents. Tests not specifically indicated to be done at the Owner's expense, including retesting of rejected materials and installed work, shall be done at the Contractor's expense.

E. Acceptance Criteria for Concrete Strength: A strength test is defined as the average strength of two 6" x 12" cylinder breaks or three 4" x 8" cylinder breaks tested at the strength age indicated on the drawings for that class of concrete. The strength level of an individual class of concrete shall be considered satisfactory when both of the following requirements are met:

1. The average of all sets of three consecutive strength tests equal or exceed the required f'c.

2. No individual strength test falls below the required f'c by more than 0.1 f'c or 500 psi, whichever is greater.

F. Responsibility for Selection and use of concrete admixtures and chemical treatments: The Contractor shall be responsible for selecting admixtures and surface treatments that are compatible with the intended use of the concrete including all final surface treatments called for within this or other specifications or on the Contract Drawings. The Contractor is responsible for following the manufacturer's instructions for the use of their product including abiding by any limitations placed by the manufacturer on the use of any of its products.

G. Survey for Anchor Rods and Reinforcing Steel Dowels: The Contractor shall use

a qualified and experienced field engineer (construction surveyor), having a minimum of three years of experience as “lead” field engineer on projects of similar type, lay out the proper location of all embedded anchor rods, embedded connection plates for structural steel columns and beams, tension rods for structural precast, and correct location and elevation of concrete column dowels before they are encased in concrete.

H. Manufacturer Representative Presence:

1. Post-installed anchors: The manufacturer’s representative for each post-installed anchor product (adhesive, expansion, undercut, screw, or insert anchor) shall be present during the first day’s installation of the product to observe whether the anchors are installed according to manufacturer’s instructions.

2. Fiber-reinforced concrete: The manufacturer’s representative for each fiber type shall be present during the first pour in which the fiber is used to observe whether the dosage rate and placing and finishing method is in accordance with the specifications and the manufacturer’s instruction.

1.6 PREINSTALLATION CONFERENCES

A. Mix Design Conference: At least 30 days prior to submittal of concrete design mixes, the Contractor shall hold a meeting or telephone conference to review the detailed requirements for preparing the concrete mix designs. Participants shall include representatives from the Contractor, UH Facilities Project Inspector, Owner’s Testing Laboratory, Concrete Supplier, and Engineer.

B. Pre-Concrete Conference:

1. At least 7 days prior to beginning concrete work, the Contractor shall conduct a meeting to review the proposed mix designs and to discuss required methods and procedures to produce concrete construction of the required quality. Also review requirements for submittals, status of coordinating work and availability of materials. Establish work progress schedule and procedures for materials inspection, testing and certifications. The contractor shall send a pre-concrete conference agenda to all attendees 7 days prior to the scheduled date of the conference.

2. The Contractor shall require responsible representatives of every party who is concerned with the concrete work to attend the conference, including but not limited to the following: Contractor’s Superintendent Laboratory responsible for field quality control and batch plant quality control Concrete Subcontractor Ready-Mix Concrete Producer Concrete Pumping Contractor Fiber Reinforcement Representative Owner’s and Engineer’s Representative

3. Minutes of the meeting shall be recorded, typed and printed by the Contractor and distributed by him to all parties concerned within 5 days of the meeting. One copy of the minutes shall be transmitted to the following for information purposes:

   Owner's Representative
   Facilities Project Inspector
   Engineer-of-Record

4. The Engineer shall be present at the conference. The Contractor shall notify the Engineer at least 7 days prior to the scheduled date of the conference.

1.7 SUBMITTALS

A. Product Data: Submit manufacturer's product data with application and installation instructions for proprietary materials and items, including admixtures, patching compounds, epoxies, grouts, waterstops, joint systems, fiber reinforcement, curing compounds, dry-shake finish materials, hardeners, sealers mechanical splices, hooked anchorage systems, dowel bar substitute systems, dowel bar sleeves, joint fillers, and others as requested by the Engineer.

B. Samples: Submit samples of materials specified if requested by the Engineer, including names, sources and descriptions.

C. Mix Designs: Submit mix designs as specified herein.

D. Material and Mill Certificates: Provide material and mill certificates as specified herein and in the Testing Laboratory section of the Specifications. The Manufacturer and Contractor shall sign the material and mill certificates certifying that each material item complies with specified requirements. Provide certification from admixture manufacturers that chloride ion content complies with specified requirements.

E. Construction Joints: Submit drawing of proposed construction joint locations in concrete for slab on grade, mat foundations, structural floors, roofs and walls. Submit any additional or changed reinforcing that is required at construction joints that differs from that shown on the drawings.

F. Pour Sequence for Mat Foundation: Submit proposed pour sequence for mat foundations.

G. Industrial Slabs: Submit proposed pour sequence and procedure for protecting concrete during placement, finishing, and curing.

H. Minutes of preconstruction conference.

1.8 PROVISION FOR OTHER WORK

A. Provide for installation of inserts, hangers, metal ties, anchors, bolts, angle guards, dowels, thimbles, slots, nailing strips, blocking, grounds and other fastening devices required for attachment of work. Properly locate in cooperation with other trades and secure in position before concrete is poured. Do not install sleeves or blockouts in any concrete slabs, beams or columns except where shown on the drawings or upon written approval of the Engineer.

B. Protect adjacent finish materials against damage and spatter during concrete placement.

C. To maintain location accuracy, the General Contractor's field engineer shall furnish building control lines and elevation benchmarks for the use of all trades.

PART 2 - PRODUCTS

2.1 CONCRETE MATERIALS

A. Refer to the drawings for classes and strengths of concrete required.

B. Hydraulic Cement:

1. Use ASTM C 150, Type I or Type III, or ASTM C 1157, Type GU or HE unless otherwise specified. Do not use Type III cement in slabs on grade unless approved in advance by the Engineer.

2. Concrete exposed to sulfates in soil or water
   a. Exposure class S1: For areas designated on the drawings as exposure class S1, use ASTM C 150, Type II or ASTM C 1157, Type MS.
   b. Exposure class S2: For areas designated on the drawings as exposure class S2, use ASTM C 150, Type V or ASTM C 1157, Type HS.
   c. Alternate cement types for exposure classes and S2: ASTM C 150, Type I or III cement may be used for concrete exposed to exposure S1 or S2 if the tricalcium aluminate (C3A) content is less than 8 percent for S1 exposure or 5 percent for S2 exposure ASTM C 150, Type I or III cement may be used for exposure to seawater if the tricalcium aluminate content does not exceed 10 percent and the w/cm ratio of the concrete mix does not exceed 0.40.
   d. Exposure class S3: For areas designated on the drawings as exposure class S3, use ASTM C 150, Type V plus pozzolan or slag or ASTM C 1157, Type HS plus pozzolan or slag or ASTM C 595, Type IP (HS) or Type IS (HS). The amount of pozzolan or slag added or in a blended mix shall be such that has been determined by service record to improve sulfate resistance

when used with Type V cement or the amount that when tested according to ASTM C 1012 meets the criteria of table 4.5.1 in ACI 318-08.

3. Use one brand of cement, for each class of concrete, throughout the project, unless approved otherwise by the Engineer and the Owner's Testing Laboratory. Submit mill certificates certifying conformance to this specification for each brand and type of cement. Documentation of design mix strength history must match the cement brand used.

4. Testing of cement in lieu of mill certificate submittal will be required if:

   a. The cement has been in storage at the mixing site for over 30 days
   b. It is suspected by the Agency or Engineer Testing Laboratory that the cement has been damaged in storage or in transit or is in any way defective.

C. Low-alkali cement: Cement that has the additional requirement that equivalent alkalis (Na2 O + 0.658K2 O) do not exceed 0.60% according to ASTM C 150-00, Table 2.

D. Expansive Cement: ASTM C 845, Type K.

E. Fly Ash: ASTM C 618, Class C or F.

F. Silica Fume: ASTM C 1240, Amorphous Silica.

G. Slag Cement: ASTM C 989, Grade 100 or 120 or ASTM C 595, Type IS or Type S.

H. Normal weight Aggregates: ASTM C 33, and as herein specified. Submit material certificates from aggregate supplier or test results from an independent testing Laboratory certifying conformance to this specification for each source of aggregate.

1. For concrete identified on the drawings as exposed to exposure classes C1 and C2, submit certification that aggregate does not contain any deleterious materials that react with alkalis in the concrete mix to cause excessive expansion of the concrete for concrete that is exposed to wetting, has extended exposure to humid atmosphere, or is in contact with moist ground unless low-alkali cement is used.

I. Lightweight Aggregates: ASTM C 330. Submit material certificates from aggregate supplier or test results from an independent testing Laboratory certifying conformance to this specification for each source of aggregate.

J. Water: Comply with the requirements of ASTM C 1602

K. Cementitious materials, aggregate, and water must be extracted or recovered as well as manufactured within 500 miles of the project site.

L. Air-Entraining Admixture: ASTM C 260.

Subject to compliance with requirements, provide one of the following products and manufacturers:

"Darex" or "Daravair" series; W. R. Grace & Co.
“MB-VR”, "MB-AE90" or "Micro-Air"; BASF Admixtures, Inc "Sika AER"; Sika Corporation "Air Mix" or "AEA-92"; the Euclid Chemical Company
“Eucon Air 30” or “Eucon Air 40”, the Euclid Chemical Company.

Submit manufacturer's certification that product conforms to the requirements specified and is compatible with all other admixtures to be used.

M. Water-Reducing Admixture: ASTM C 494, Type A. See maximum permissible chloride ion content in concrete specified below.

Subject to compliance with requirements, provide one of the following products and manufacturers:

"Pozzolith" series; BASF Construction Chemicals "Plastocrete 161"; Sika Chemical Corp. "Eucon WR-75 or WR-91"; the Euclid Chemical Company. "WRDA "; series W.R. Grace & Co. “Eucon NW” or “Eucon LW”, the Euclid Chemical Company

Submit manufacturer's certification that product conforms to the requirements specified and is compatible with all other admixtures to be used.

N. Mid-Range Water-Reducing Admixture: ASTM C 494, Type A and Type F. See maximum permissible chloride ion content in concrete specified below.

Subject to compliance with requirements, provide one of the following products and manufacturers:
“Polyheed” series, BASF Construction Chemicals “Eucon MR”, the Euclid Chemical Company “Sikament HP”, Sika Chemical Corp. “Daracem” or “Mira” series, W.R. Grace & Co. “Eucon X15” or “Eucon X20”, the Euclid Chemical Company

Submit manufacturer's certification that product conforms to the requirements specified and is compatible with all other admixtures to be used.

O. High-Range Water-Reducing Admixture (superplasticizer): ASTM C 494, Type F or Type G. See maximum permissible chloride ion content in concrete specified below.

Subject to compliance with requirements, provide one of the following products and manufacturers:

"ADVA" or "Daracem" Series; W.R. Grace & Co. "Rheobuild 1000" or "Glenium" series; BASF Construction Chemicals "Sikament"; Sika Chemical Corp. "Eucon 37/1037" or "Plastol" series; the Euclid Chemical Company "Euconl SP" or "Eucon RD", the Euclid Chemical Company

Submit manufacturer's certification that product conforms to the requirements specified and is compatible with all other admixtures to be used.

P. Water-Reducing, Accelerator Admixture (Non-Corrosive, Non-Chloride): ASTM C 494, Type C or E. See maximum permissible chloride ion content in concrete specified below.

Subject to compliance with requirements, provide one of the following products and manufacturers:

"Polarset";"Gilco", "Lubricon NCA" or "DCI", W.R. Grace & Co. "Pozzutec 20+"; BASF Construction Chemicals "Accelguard 80/90"; "NCA", or "AcN", the Euclid Chemical Company "Plastocrete 161FL", Sika Chemical Co. "Eucon AcN", the Euclid Chemical Company

Submit manufacturer's certification that product conforms to the requirements specified and is compatible with all other admixtures to be used.

Q. Water-Reducing, Retarding Admixture: ASTM C 494, Type D. See maximum permissible chloride ion content in concrete specified below.

Subject to compliance with requirements, provide one of the following products and manufacturers:

"Daratard" series, W.R. Grace & Co. "Pozzolith" series or "DELVO" series; BASF Construction Chemicals "Plastiment"; Sika Chemical Co. "Eucon Retarder", Series, the Euclid Chemical Company

Submit manufacturer's certification that product conforms to the requirements specified and is compatible with all other admixtures to be used.

R. Viscosity Modifying Admixture: Used to enhance plastic concrete properties such as workability, pumpability, and stability for "self-consolidating concrete". "Rheomac VMA" series, BASF Construction Chemicals "Eucon SL" or "Visctrol", the Euclid Chemical Company "VisoCrete" series, Sika Chemical Co. "VMAR" series, W.R. Grace & Co.

S. Shrinkage Reducing Admixture: An admixture that reduces drying shrinkage by reducing the capillary tension of pore water.

Subject to compliance with requirements, provide one of the following products and manufacturers:

For Air-Entrained Concrete: "Eclipse Plus"'; Grace Construction Products "Eucon SRA"; the Euclid Chemical Company

For Non Air-Entrained Concrete

“Eclipse Floor”, Grace Construction Products “Tetraguard AS20”, BASF Construction Chemicals

T. Corrosion Inhibitor: 30% calcium nitrite

Products: Subject to compliance with requirements, provide the following at dosage rates per Engineer of Record from manufacturer’s recommendation based on design life, application, clear cover and other products in concrete mix: "Eucon CIA" or “Eucon BCN”, the Euclid Chemical Company "DCI" or “DCI-S”, W.R. Grace & Co. "Rheocrete CNI", BASF Construction Chemicals “Sika CNI”, Sika Chemical Co.

U. Corrosion Inhibitor: Amine-Ester type
Products: Subject to compliance with requirements, provide the following at dosage rates per manufacturer’s recommendation: "Rheocrete 222+", BASF Construction Chemicals

V. Crystalline-forming Waterproofing Admixture: A powder admixture capable of producing concrete that is watertight under hydrostatic pressure up to 7 atmospheres when tested in accordance with Corps of Engineers test CRD-C48 and capable of sealing cracks up to 0.4mm.

Products: Subject to compliance with requirements, provide the following at dosage rates per manufacturer’s recommendation:

“Penetron Admix”, ICS/Penetron International/Ltd.” Krystol Internal Membrane”, Kryton International, Inc. “Xypex C series”, Xypex Chemical Corporation “Rheomac 300D”, BASF Construction Chemicals

W. Calcium Chloride and Chloride Ion Content: Calcium chloride or admixtures containing more than 0.5% chloride ions by weight of the admixture are not permitted. For concrete exposed to sulfate exposure class S2 or S3 as noted on the drawings, admixtures must be completely free of chloride ions.

X. Certification: Written conformance to all the above-mentioned requirements and the chloride ion content of the admixture as tested by an accredited laboratory will be required from the admixture manufacturer at the time of mix design review by the Engineer.

2.2 RELATED MATERIALS

A. Waterstops: Provide waterstops at all construction joints and other joints in all foundation walls below grade and where shown on the drawings. Size to suit

joints. Provide flat, dumbbell type or center bulb type where shown on drawings.

1. ADCOR ES waterstops: W.R. Grace & Co.

2. Polyvinyl chloride (PVC) waterstops: Corps of Engineers CRD-C 572.

3. Preformed Plastic Waterstops: Federal Specifications SS-S-210A "Sealing Compound for Expansion Joints".

Manufacturers: Synko-Flex Products, Inc.

4. Bentonite Waterstop RX manufactured by American Volclay Products.

B. Vapor Retarder: Provide vapor retarder cover chosen from products specified below over prepared base material where indicated.

1. Plastic Vapor Retarder Provide a flexible preformed sheet membrane conforming to ASTM E 1745 with the following properties.

   a. Class A material
   b. Minimum of 15 mils thick
   c. Maximum water vapor permeance rating of 0.01 Perms after mandatory conditioning as tested by ASTM E 96
   d. Acceptable products include the following:
   "Stego Wrap Vapor Barrier (15 mil)", Stego Industries, LLC
   “Ecoshield-E” (15 mil), Epro “Monarflex Reflex Super, Monarflex

2. Tape for Plastic Vapor Retarders: High-density polyethylene tape with pressure sensitive adhesive having a minimum width of 4 inches having a maximum water vapor transmission rate of .3 perms.

C. Absorptive Cover: Burlap cloth made from jute or kenaf, weighing approximately 9 oz. per sq. yd., complying with AASHTO M 182, Class 2.

D. Moisture-Retaining Cover: One of the following, complying with ANSI/ASTM C 171:

1. Waterproof paper.

2. Polyethylene film.

3. Polyethylene-coated burlap.

4. Polyethylene-coated natural cellulose fabric such as “Aquacure” by Greenstreak Group, Inc.

5. Cover for Industrial Slab: Provide a low permeance moisture-retaining cover that allows a moisture loss of no more than 1 lb/sq. yd. in 72 h when tested in accordance with ASTM C 156 for industrial slabs. The material shall be non- staining with a tensile strength meeting ASTM D 882 and a minimum retention capacity of 6.5 g.

E. Slip-resistant Emery Aggregate or Aluminum Granule Finish: Provide fused aluminum- oxide granules, or crushed emery, as abrasive aggregate for slip-resistant finish. The emery aggregate shall contain not less than 50% aluminum oxide and not less than 20% ferric oxide. The aluminum aggregate material shall contain not less than 95% fused aluminum-oxide granules. Use material that is factory-graded, packaged, rust-proof and non-glazing, and is unaffected by freezing, moisture and cleaning materials. Subject to compliance with requirements, provide one of the following: "Emery Tuff Non-Slip", Dayton-Superior "Grip-It" or “Grip-It AO”, L&M Construction Chemicals, Inc “Frictex NS”, Sonneborn-ChemRex

F. Colored, Mineral Aggregate, Dry Shake Surface Hardener: Packaged, dry, combination of materials, consisting of portland cement, graded quartz aggregate, coloring pigments (if required) and plasticizing admixtures. Use coloring pigments that are finely ground, non-fading mineral oxides, interground with cement. Color, as selected by Agency, unless otherwise indicated. Products: Subject to compliance with requirements, provide one of the following: "Surflex"; the Euclid Chemical Company "Quartz Plate"; L & M Const. Chemical Co. “Lithochrome”, LM Scofield Construction Chemical Co. "Mastercron"; BASF Building Systems "Quartz-Tuff“, Dayton Superior “US Spec Dense Top”, US Mix Co.

Submit manufacturer's certification that product conforms to the requirements specified.

G. Metallic Aggregate Hardener Finish: Packaged dry, combination of materials consisting of Portland Cement, specially processed and graded iron aggregate, coloring pigments (if required) and plasticizing admixtures. The hardener shall be formulated, processed and packaged under stringent quality control. Use coloring pigments that are finely ground, non-fading mineral oxides inter-ground with cement. Color as selected by Agency unless otherwise indicated. "Euco-Plate HD"; the Euclid Chemical Company "Masterplate 200"; BASF Building Systems "Ferro Tuff," Dayton-Superior

H. Non-Oxidizing Metallic Floor Hardener: Packaged dry, combination of materials consisting of portland cement, non-rusting aggregate and plasticizing admixtures. "Diamond Plate," the Euclid Chemical Company "Lumiplate," BASF Building Systems

I. Liquid Membrane-Forming Curing and Curing and Sealing Compounds:

1. Water-Based Dissipating Resin Type Curing Compound: Curing Compound shall be a dissipating resin type, which chemically breaks down after approximately 4 weeks. Membrane forming compound shall meet ASTM C 309, Types 1 or 1D, Class B with VOC content less than 350 g/L.
2. Products: Subject to compliance with requirements, provide one of the following: "Kurez DR Vox", the Euclid Chemical Company "L&M Cure R", L&M Construction Chemicals "Hydro Cure 309", Unitex "Sealtight 1100-Clear", W. R. Meadows "US Spec Maxcure Resin Clear", US Mix Co.

   Submit manufacturer's certification that product conforms to the requirements specified and is compatible with any covering or surface treatments to be applied. Submit any instructions that must be followed prior to any subsequent surface treatments and floor coverings.

3. High Solids, Water-Based Acrylic Curing and Sealing Compound with Moderate Yellowing Characteristics: Water-Based membrane-forming curing and sealing compound conforming to ASTM C 1315, Type 1, Class B, classified as low odor with a VOC content less than 350 g/L. Product shall provide a maximum moisture loss of 0.030 Kg/m^2 in 72 hours when applied at a coverage rate of 300 sf/gallon. Do not apply to surfaces that are to receive subsequent cementitious toppings, sealers, hardeners, ceramic tile, resilient flooring, vinyl-backed carpet, wood, or terrazzo, epoxy overlays or adhesives, or other coating or finishing products.

   Products: Subject to compliance with above requirements, provide one of the following products or equivalent products: "Safe Cure and Seal (J-19)"; Dayton Superior Corp. "Super Aqua-Cure VOX"; the Euclid Chemical Company "Dress & Seal, 30 WB"; L & M Construction Chemicals, Inc. "Masterkure 200W"; BASF Building Systems "Hydro 18", Unitex

   Submit manufacturer's certification that product conforms to the requirements specified and is compatible with any covering or surface treatments to be applied. Submit any instructions that must be followed prior to any subsequent surface treatments.

4. High Solids, Water-Based, Non-Yellowing Curing and Sealing Compound: Water based membrane-forming curing and sealing compound, acrylic type, complying with ASTM C 1315, Type 1, Class A classified as low odor with a VOC content less than 350 g/L. Do not apply to surfaces that are to receive subsequent cementitious toppings, sealers, hardeners, ceramic tile resilient flooring, vinyl- backed carpet, wood, terrazzo, epoxy overlays or adhesives, or other coating or finishing products.

   Products: Subject to compliance with requirements, provide one of the following: "Super Diamond Clear Vox", the Euclid Chemical Company

"Lumiseal 30 WB", L&M Construction Chemicals “Kure 1315”, BASF Building Systems “Hydro Seal 30”, Unitex “Vocomp 30”, W. R. Meadows “US Spec Radiance UV-25”, US Mix Co.

Submit manufacturer's certification that product conforms to the requirements specified and is compatible with any covering or surface treatments to be applied. Submit any instructions that must be followed prior to any subsequent surface treatments.

J. Evaporation Control: Monomolecular film forming compound applied to exposed concrete slab surfaces for temporary protection from rapid moisture loss in hot weather conditions.

Products: Subject to compliance with requirements, provide one of the following: "Eucobar"; the Euclid Chemical Company "E-Con"; L & M Construction Chemical, Inc. "Confilm"; BASF Building Systems "Sure Film (J-74)", Dayton Superior "SikaFilm", Sika Chemical Co. “Pro-Film”, Unitex “Sealtight Evapre”, W. R. Meadows “US Spec Monofilm ER”, US Mix Co.

Submit manufacturer's certification that product conforms to the requirements specified and is compatible with all coverings and surface treatments to be applied. Submit any instructions that must be followed prior to any subsequent surface treatments.

K. Chemical Curing/Floor Hardener Compound: Sodium silicate based compound which reacts with concrete constituents to harden the surface, resulting in a surface having a maximum abrasion coefficient of 0.25 cm3/cm2 when tested in accordance with ASTM C 418.

Products: Subject to compliance with requirements, provide one of the following: "Eucosil," the Euclid Chemical Company "Sonosil," BASF Building Systems "Day-Chem S.1-Cure (J-13), Dayton Superior "Chem Hard;" L & M Construction Co. “Uni Cure HD”, Unitex “Med-Cure”, W. R. Meadows “US Spec Permasil”, US Mix Co.

Submit manufacturer's certification that product conforms to the requirements specified and is compatible with all coverings and surface treatments to be applied. Submit any instructions that must be followed prior to any subsequent surface treatments.

L. Chemical Hardener: Colorless aqueous solution containing a blend of magnesium fluosilicate and zinc fluosilicate combined with a wetting agent, containing not less than 2 lbs. of fluosilicates per gal.

Products: Subject to compliance with requirements, provide one of the following: "Surfhard"; the Euclid Chemical Company "Lapidolith"; BASF Building Systems
"Day-Chem Hardener (J-15)," Dayton Superior “Fluohard”, L & M Construction Chemical, Inc. “Penalith”, W. R. Meadows

Submit manufacturer's certification that product conforms to the requirements specified and is compatible with all coverings or surface treatments to be received. Submit any instructions that must be followed prior to any subsequent surface treatments.

M. Liquid sealer/densifier: High performance, deeply penetrating concrete densifier that is an odorless, colorless, VOC-compliant, non-yellowing siliconate-based solution containing a minimum solids content of 20%, 50% of which is siliconate.

“Euco Diamond Hard”, the Euclid Chemical Company ”Seal Hard”, L & M Construction Chemical, Inc.
“Luqui-Hard”, W.R. Meadows

N. Water and Chloride Ion Repelling Penetrating Sealer: Clear, solvent based silane or siloxane penetrating sealer which reacts chemically with the concrete surface to function as a Chloride Ion screen with a minimum 90% factor when tested in accordance with NCHRP #244, Series II, 100% solids, and applied in accordance with the manufacturer's recommendation.

Products: Subject to compliance with requirements, provide one of the following:

a. “Hydrozo 100”, BASF Building Systems.
b. “Iso-flex 618-100 CRS”, Lymtal International, Inc.
c. “Protectosil Chem-Trete BSM-400”, Evonik Industries

O. Water and Chloride Ion Repelling Penetrating Sealer: Clear, solvent free, silane penetrating sealer which reacts chemically with the concrete surface to function as a Chloride Ion screen with a minimum 83% factor when tested in accordance with NCHRP #244, Series II and applied in accordance with the manufacturer's recommendation.

Products: Subject to compliance with requirements, provide one of the following:

1. 40% solids:

a. "Enviroseal 40" –BASF Building Systems
b. “Iso-flex 618-40 WB”, Lymtal International, Inc.

2. 100% solids:

a. “Protectosil BH-N”, Evonik Industries

P. Bonding Compound: Polyvinyl acetate or acrylic base, for use in cosmetic and/or nonstructural repairs.

Products: Subject to compliance with requirements, provide one of the following:

1. Acrylic or Styrene Butadiene:
"Day-Chem Ad Bond (J-40)"; Dayton Superior "SBR Latex"; the Euclid Chemical Company "Daraweld C"; W. R. Grace
"Acrylic Additive" BASF Building Systems "SikaLatex", Sika Chemical Co.
“Intralok”, W. R. Meadows
“US Spec Acrylcoat”, US Mix Co.

"Akkro 7-T", the Euclid Chemical Company

2. Polyvinyl Acetate (Interior Use Only)

"Tammseld"; the Euclid Chemical Company "Everweld"; L & M Construction Chemicals, Inc. "Superior Concrete Bonder (J-41)," Dayton Superior "US Spec Bondcoat", US Mix Co.

Q. Epoxy Products: Two component material suitable for use on dry or damp surface, complying with ASTM C 881.

1. Products for Crack Repair:
"Sikadur 35 Hi Mod LV"; Sika Chemical Company – injection type
"Sikadur 52", Sika Chemical Company – injection type
"Sikadur 55 SLV", Sika Chemical Company – gravity feed "Eucopoxy Injection Resin," the Euclid Chemical Company "Sure-Inject (J-56)," Dayton Superior "Epofil SLV", BASF Building Systems "ETI-LV" or "ETI-GV", Simpson Strong-Tie Co., Inc. – injection type "Pro-Poxy 100 LV" or "Pro-Poxy 50", Unitex "Crackbond", U.S. Anchor Corp. "Rezi-Weld LV", W. R. Meadows "US Spec Maxibond" US Mix Co. – injection or gravity feed "US Spec Eposeal LVS", US Mix Co. – gravity feed "Duralcrete LV", the Euclid Chemical Company

2. Products for Epoxy Mortar Patches:
"Sikadur Lo-Mod LV"; Sika Chemical Corporation ""Duracrete", the Euclid Chemical Company "Sure Grip Epoxy Grout (J-54)," Dayton-Superior "Epofil", BASF Building Systems "Pro-Poxy 2500", Unitex "Rezi-Weld 1000", W. R. Meadows "US Spec EPM 3000", US Mix Co. "Duralcrete LV", the Euclid Chemical Company

3. Products for Epoxying steel plates to concrete: conform to ASTM C 881-90, Type IV, Grade 3, Class A, B, & C except gel times.
"Sikadur 31 Hi-Mod Gel"; Sika Corporation "Sure Anchor I (J-S1)," Dayton Superior "Epo Gel" or "Rapid Gel", BASF Building Systems "Pro-Poxy 300", Unitex "US Spec Gelbond NS" US Mix Co. "Duralcrete Gel", the Euclid Chemical Company

4. Products for Adhesive Anchors or Reinforcing Steel in Normal weight Concrete: Product that conforms to ASTM C 881-02, Type IV, Grade 3, Class A, B, & C except gel times, and that is dispensed from a two-component cartridge system through a mixing nozzle that thoroughly mixes the two components as it is injected into the hole.

a. ICC Approval: Only anchors evaluated by the ICC Evaluation Service, Inc. (ICC-ES) with a published, currently valid, Evaluation Report showing it as having passed Acceptance Criteria 308 shall be approved for use.
b. Consult with the manufacturer for the minimum temperature of the concrete substrate allowed.

c. All anchors installed upwardly inclined require continuous inspection unless an exception to the continuous special inspection for upwardly inclined installation is noted on the drawings.

d. Normal weight Concrete:
"HIT-RE 500-SD", Hilti Fastening Systems (periodic inspection unless anchors are installed upwardly inclined) "SET-XP" Adhesive", Simpson Strong-tie (periodic inspection unless higher factors are used in design requiring continuous inspection as noted on the drawings or anchors are installed upwardly inclined) "PE 1000+", Powers Fasteners, Inc. (periodic inspection unless anchors are installed upwardly inclined) HIT-HY 150 MAX-SD", Hilti Fastening Systems (periodic inspection unless anchors are installed upwardly inclined)

e. Lightweight Concrete:

No approved products

f. These products may not be used in concrete cast over corrugated deck.

g. Install only anchors identified on the drawings by manufacturer and product. Substitutions using products approved by this Specification may be permitted provided complete design calculations, as required by and in accordance with the proposed product's current and valid ICC Evaluation Service Report (ESR) and ACI 318 Appendix D, are signed and sealed by a professional engineer licensed in the state where the project is located and furnished to the Engineer for review and approval prior to commencement of work. The contractor shall request design criteria for all conditions where a product substitution is considered. Failure to obtain approval for an anchor substitution may result in the request by the Engineer to remove installed anchors and replace with the product specified on the drawings at the Contractor's expense.

R. Self-Leveling Mortars, Underlayment Compound: Free flowing, self-leveling, pumpable cementitious base compound. Follow manufacturer's instruction regarding the use of a bonding agent.
Products: Unless specified otherwise, provide one of the following: "Sonoflow," BASF Building Systems "Sikatop 111"; Sika Chemical Co.
"Flo-Top" or "Super Flo-Top"; the Euclid Chemical Company "Levelayer I," Dayton Superior
"US Spec Self-leveling Underlayment" US Mix Co. "Level Magic", the Euclid Chemical Company

S. Polymer Patching Mortar: Polymer and microsilica modified cementitious based compounds.

Products:

Horizontal Application

"Thin Top Supreme, Concrete Top Supreme," the Euclid Chemical Company

"Sikatop 121 or 122," Sika Chemical "Emaco R310 CI," BASF Building Systems
“Sonopatch 100 or 200”, BASF Building Systems “US Spec H2 or NuTop” US Mix Co.
“Speed Crete PM”, the Euclid Chemical Company Upwardly Inclined Application
"Verticoat/Verticoat Supreme," the Euclid Chemical Company "Sikatop 123," Sika Chemical
"Emaco R350 CI," BASF Building Systems “Sonopatch 200”, BASF Building Systems “US Spec V/O Patch”, US Mix Co.
“Speed Crete PM”, the Euclid Chemical Company

T. High Strength Flowing Repair Mortar: For forming and pouring structural members, or large horizontal repairs, provide flowable one-part, high strength microsilica polymer modified repair mortar with 3/8" aggregate. The product shall achieve 9000 psi @ 28- days at a 9-inch slump.

Products:

“Road Patch”, BASF Building Systems “US Spec STR Mortar”, US Mix Co.
“Eucocrete”, the Euclid Chemical Company “Form and Pour”, the Euclid Chemical Company

U. Anti-Corrosive Epoxy/Cementitious Adhesive: Water-based epoxy/cementitious compound for adhesion and corrosion protection or reinforcing members (20 hour maximum open time).

Products:

"Duralprep A.C", the Euclid Chemical Company "Armatec 110," Sika Chemical Co.
“Sonoprep Plus”, BASF Building Systems

V. Expansion and Undercut Anchors in Concrete:

1. ICC Approval: Only anchors evaluated by the ICC Evaluation Service, Inc. (ICC- ES) with a published, currently valid, Evaluation Report showing it as having passed Acceptance Criteria 193 and approval for use in cracked concrete and resisting wind and seismic loads shall be approved for use.

2. Type: All expansion and undercut anchors in concrete shall be only wedge type expansion, sleeve-type expansion, or undercut type anchors.

3. Interior Use: All anchors, nuts and washers for use in interior conditioned environments free of potential moisture shall be manufactured from carbon steel zinc plated in accordance with Federal Specification QQ-Z-325C, Type II, Class 3.

4. Exterior or Exposed Use: All anchors, nuts and washers for use in exposed or potentially wet environments, or for attachment of exterior cladding materials shall be galvanized or stainless steel. Galvanized anchors, nuts and washers shall conform to ASTM A 153. Stainless steel anchors shall be manufactured from 300 series stainless steel and nuts and washers from 300 series or Type 18-8 stainless steel.

5. Nuts and Washers: Nuts and washers shall be furnished from the manufacturer and used with the anchors.

6. Acceptable Products and Manufacturers – Normal and Lightweight Concrete: "Kwik Bolt TZ", Hilti Fastening Systems (periodic inspection) "HDA Undercut Anchor" Hilti Fastening Systems (continuous inspection) "HSL-3 Heavy Duty Sleeve Anchor", Hilti Fastening Systems (continuous inspection) "Strong-Bolt Wedge Anchor", Simpson Strong-Tie, Co., Inc. (continuous inspection) "Red Head Trubolt + Wedge Anchor", ITW Red Head (periodic inspection) "DUC Undercut Anchor", USP Structural Connectors (continuous inspection) "Power Stud + SD1", Powers Fasteners, Inc (periodic inspection) "Power Stud + SD2", Powers Fasteners, Inc (periodic inspection) "SRS TZ Carbon Steel Anchor", MKT Metal-Kunststoff-Technik (continuous inspection)

7. Acceptable Products and Manufacturers – Normal and Light Weight Concrete on Corrugated Deck:
"Kwik Bolt TZ", Hilti Fastening System (periodic inspection) Strong-Bolt Wedge-Anchor", Simpson Strong-Tie, Co, Inc. (continuous inspection) Power Stud + SD2", Powers Fasteners, Inc. (periodic inspection)

8. Install only anchors identified on the drawings by manufacturer and product. Substitutions using products approved by this Specification may be permitted provided complete design calculations, as required by and in accordance with the proposed product's current and valid ICC Evaluation Service Report (ESR) and ACI 318 Appendix D, are signed and sealed by a professional engineer licensed in the state where the project is located and furnished to the Engineer for review and approval prior to commencement of work. The contractor shall request design criteria for all conditions where a product substitution is considered. Failure to obtain approval for an anchor substitution may result in the request by the Engineer to remove installed anchors and replace with the product specified on the drawings at the Contractor's expense.

W. Screw and Insert Anchors in Concrete

1. Approvals: Only anchors evaluated by the ICC Evaluation Service, Inc. (ICC-ES) with a published, currently valid, Evaluation Report showing it as having passed Acceptance Criteria 193 and approved for use in cracked concrete and resisting wind and seismic loads shall be approved for use.

2. Interior Use: All screw anchors for use in interior conditioned environments free of potential moisture shall be manufactured from carbon steel zinc plated in accordance with Federal Specification QQ-Z-325C, Type II, Class 3.

3. Exterior or Exposed Use: All screw anchors for use in exposed or potentially wet environments, or for attachment of exterior cladding materials shall be galvanized or stainless steel. Galvanized anchors shall conform to ASTM A 153. Stainless steel anchors shall be manufactured from 300 series stainless steel.

4. Acceptable Products and Manufacturers – All Conditions:

"Titen HD", Simpson Strong-Tie Co., Inc (continuous inspection) "Snake+Anchor" Powers Fasteners, Inc. (periodic inspection)
"Wedge-Bolt+", Powers Fasteners, Inc. (greater than ¼ in. diameter) (periodic inspection)

5. Install only anchors identified on the drawings by manufacturer and product. Substitutions using products approved by this Specification may be permitted provided complete design calculations, as required by and in accordance with the proposed product's current and valid ICC Evaluation Service Report (ESR) and ACI 318 Appendix D, are signed and sealed by a professional engineer licensed in the state of California and furnished to the Engineer for review and approval prior to commencement of work. The contractor shall request design criteria for all conditions where a product substitution is considered. Failure to obtain approval for an anchor substitution may result in the request by the Engineer to remove installed anchors and replace with the product specified on the drawings at the Contractor's expense.

X. Threaded Rods Chemically Anchored in Concrete

1. Type: Threaded rods installed in holes using a chemical anchoring process shall have a 45º chiseled end on one end.

2. Interior and Exterior Application: Meet the requirements of ASTM A 153 galvanized steel, or F 593, Group 1 or 2, condition CW stainless steel.

Y. Anchor Rods:

1. All anchor rods shall conform to the ASTM designation and shall be of

the yield strength as specified below as appropriate for the types and at the locations as specified on the drawings:

a. ASTM F 1554, Grade 36 (1/4 inch to 4 inches in diameter).
b. ASTM F 1554, Grade 55 (1/4 inch to 4 inches in diameter). (Also comply with Supplementary Requirement S1 of ASTM F 1554)
c. ASTM F 1554, Grade 105 (1/4 inch to 3 inches in diameter.
d. ASTM A 588 (corrosion resistant).
e. ASTM A 354 Grade BD, 130 ksi (to 2 ½ inches in diameter).
f. ASTM A 354 Grade BD, 115 ksi (greater than 2 ½ inches to 4 inches in diameter).
g. ASTM A 354 Grade BC, 109 ksi (to 2 ½ inches in diameter).
h. ASTM A 354 Grade BC, 99 ksi (greater than 2 ½ inches to 4 inches in diameter).

2. Anchor rods used with ASTM A 588 base plates shall be threaded round stock conforming to ASTM A 588, grade 50.

3. Anchor rods used with ASTM A 588 base plates shall be threaded round stock conforming to ASTM A 588, grade 50.

4. Anchor rods used with galvanized base plates shall be galvanized.

5. Nuts: All nuts with anchor rods shall be heavy hex head conforming to ASTM A 563.

6. Washers: Unless noted otherwise on the drawings, washer size and thickness for all anchor rods shall conform to Table 14-2 of AISC “Steel Construction Manual” with holes 1/16” greater than the anchor rod diameter. Washers shall conform to ASTM A 36 steel.

Z. Non-Shrink Grout:

1. Type: Grout for base plates, bearing plates and grouting under precast or tilt-up wall panels shall be a non-metallic, shrinkage resistant, premixed, non-corrosive, non-staining product containing Portland cement, silica sands, shrinkage compensating agents and fluidity improving compounds.

2. Specifications: Non-shrink grout shall conform to ASTM C 1107.

3. Compressive Strength: Provide the minimum strength as shown below as determined by grout cube tests at 28 days:

a. 6,000 PSI for supporting concrete 3000 psi and less.
b. 8,000 PSI for supporting concrete greater than 3000 psi and less than or equal to 4000 psi.

c. Unless noted otherwise on the drawings, grout strength on supporting concrete greater than 4000 psi shall be 8000 psi.

4. Products: Acceptable non-shrink grouts are listed below:
"Crystex"; L & M Construction Chemicals, Inc. "Masterflow 713 Plus"; BASF Building Systems "Set Grout," BASF Building Systems.
"Five Star Grout"; U. S. Grout Corp. "Sonogrout 10K"; BASF Building Systems "NS Grout"; the Euclid Chemical Company
"Sure-Grip High Performance Grout"; Dayton Superior Corp. "CG 200 PC", Hilti, Inc. “CG-86 Grout”, W. R. Meadows “US Spec GP Grout”, US Mix Co.

5. High Flow, Non-Metallic Grout: Use high-flow grout where high fluidity and/or increased placing time is required and for base plates that are larger than 10 square feet. The factory pre-mixed grout shall conform to ASTM C 1107, "Standard Specification for Packages Dry, Hydraulic-Cement Grout (Non- Shrink)." In addition, the grout manufacturer shall furnish test data from an independent laboratory indicating that the grout when placed at a fluid consistency shall achieve 95% bearing under a 18" x 36" base plate. Provide one of the following: "Hi-Flow Grout," the Euclid Chemical Company "Masterflow 928," BASF Building Systems. "14K Hy Flow," BASF Building Systems “588 Grout”, W. R. Meadows “US Spec MP Grout”, US Mix Co.

AA. Frictionless Bearing Pads:

1. Types:

a. Frictionless bearing pads shall be a nominal 3/32" glass filled virgin Tetrafluoroethylene (TFE) conforming to ASTM D 4745 with a 10 gauge A36 steel backing plate factory bonded with a tested epoxy performed in a heated bonding process under a controlled pressure. Provide one sliding pad tack welded to the lower supporting surface and one tack welded to the upper surface. Unless detailed otherwise on the drawings, the upper element shall be larger than the lower element on all sides by the amount of the expansion joint width shown on the drawings.

b. The lower frictionless bearing pads shall be a nominal 1/16" glass filled virgin Tetrafluoroethylene (TFE) conforming to ASTM D 4745 with a 10 gauge A36 steel backing plate factory bonded with a tested epoxy performed in a heated bonding process under a controlled pressure. The upper frictionless bearing pad shall be a 20 gauge stainless steel sheet (RMS<20) resistance welded to a 10 gauge A36 steel backing plate. The lower sliding pad shall be tack welded to the lower supporting surface and the upper pad tack welded to the upper surface. Unless detailed otherwise on the drawings, the upper element

shall be larger than the lower element on all sides by the amount of the expansion joint width shown on the drawings.

2. Design: The pad size and design shall conform to 1998 AASHTO "LRFD Bridge Design Specifications," Section 14. Design bearing pressure under total service load shall not exceed the manufacturer's recommendation. If Neoprene is used the compressive load shall be limited to 800 psi.

3. Corrosion Resistance: Frictionless bearing pads for exterior or exposed usage shall be manufactured for use in an exposed climate of heat, cold, moisture, and ultraviolet rays. All backing steel in an exposed or open environment shall be shop painted with a zinc rich paint or field painted with "ZRC Cold Galvanizing Compound".

4. Acceptable Manufacturers: The following manufacturers are acceptable:

   a. Con-Serv, Inc., Georgetown, SC
   b. Seismic Energy Co., Athens, TX

Other manufacturers will be acceptable only with Engineer approval prior to bid.

BB. Steel Fibers: Provide deformed cold-drawn wire or modified cold-drawn steel fibers meeting the requirements of ASTM A 820, types I or V, and that are listed as an acceptable product for use in the D900 series of UL Fire Rating Assemblies. The fibers shall have a minimum tensile strength of 145,000 psi when tested in accordance with ASTM A 370. The fibers shall have a minimum aspect ratio of 48. Acceptable products include:

"Dramix RC-65/60-BN" (Type 1), "Dramix RL45/50BN" (Type I), Dramix ZL60/1.05" (Type 1), Bekaert Corp.
"Novocon 1050" (Type I), Novocon 1050 HE" (Type I), or "Novomesh 850" (Type I), Propex Concrete Systems, Corp.
"MasterFiber FF or FS" series, BASF Construction Chemicals

CC. Synthetic Micro Fiber Reinforcement: Collated, fibrillated, or monofilament polypropylene, cellulose, or multi-filament nylon fibers conforming to ASTM C 1116, Type III or Type IV.

Products:

"Fiberstrand", the Euclid Chemical Company "Econo-Mono" or "Econo-Net"; Forta Corp. "Fibermesh 300"; Propex Concrete Systems, Corp.
"Grace Microfibers" or "Grace Fibers", W.R. Grace & Co. "Caprolan-RC", Honeywell Nylon Inc.
"Nycon RC", Nycon, Inc.
"UltraFiber 500", Buckeye Technologies, Inc.
"MasterFiber M or F" series, BASF Construction Chemicals

DD. Synthetic Macro Fiber Reinforcement: Monofilament polypropylene/polyethylene fibers conforming

to ASTM C 1116, Type III having an aspect ratio between 50 and 90 and a minimum tensile strength of 90 ksi. The fiber lengths shall be between 1.5 and 2 inches long.

Products:

"Tuf-Strand S.F.", the Euclid Chemical Company "Forta-Ferro", Forta Corp.
"Strux 90/40", W.R. Grace
"Fibermesh 650", Propex Concrete Systems, Corp. "Synmix", Bekaert Corp.
"MasterFiber MAC" series, BASF Construction Chemicals

EE. Reglets: Where resilient or elastomeric sheet flashing or bituminous membranes are terminated in reglets, provide reglets of not less than 26 gage galvanized sheet steel. Fill reglet or cover face opening to prevent intrusion of concrete or debris.

FF. Carton Forms: Carton forms shall be manufactured using corrugated paper material with a moisture resistant exterior surface and specifically designed for foundation support. Carton forms shall be designed to support the wet weight of the concrete that is shown by the details to be poured on top of the form but not less than 600 psf. Refer to the Reinforced Concrete General Notes for the restriction on horizontal construction joints. The forms shall be designed in such a way that the bottom of the form will collapse when acted upon by upward movement of the soil.

1. Form Configuration: Carton forms shall be of a vertical cellular configuration only, except as permitted by item 4 below, and shall be rectangular as shown on the details. The depth of the carton forms is shown on the details. Forms shall be manufactured to fit snugly against round piers and shall be baffled in such a way as to prevent concrete from flowing back into the form during the concrete pour. The Contractor shall use expandable foam to fill all gaps and holes between carton forms and at intersections with foundations.

2. Carton forms shall be kept dry and protected until concrete is poured. Wet, compressed, or deteriorated carton forms shall not be used. Do not wrap or cover carton forms with polyethylene sheets or permanent waterproof cover as that will prevent proper deterioration of the forms.

3. Technical data and brochures on carton forms shall be submitted for Engineer's review.

4. Other types of forms using different types of paper and different configurations will be accepted if it can be shown by independent tests that the form will properly function and will deteriorate due to moisture in an appropriate time frame.

5. For slab conditions, cover carton forms with a 1/4 inch masonite protection cover board to prevent puncture and other damage during construction.

6. Products: Subject to requirements, acceptable manufacturers include but are not limited to the following:

SureVoid Products, Inc., Englewood, CO

GG. Contraction and Construction Joint-Filler Material for Slabs-on-Grade: Provide a 2- component semi-rigid, 100% solids epoxy having a minimum shore A hardness of 80 when tested in accordance with ASTM D 2240 and an elongation below 25% when measured in accordance with ASTM D 638. Subject to compliance with requirements, provide one of the following:

"Euco 700", the Euclid Chemical Company
"Spec-Joint CJ"; Conspec Marketing and Manufacturing Co., Inc. "Masterfill 300 I", BASF Building Systems
“MM-80”, Metzger/McGuire Co. “Rezi-Weld Flex”, W. R. Meadows “US Spec SR-50 EJF”, US Mix Co.

HH. Bond breaker for Construction Joints in Slabs-on-Grade: A dissipating bond breaking compound containing no silicones, resins, or waxes, and that conforms to ASTM C 309. Subject to compliance with requirements, acceptable manufacturers include the following:

“Sure-Lift”, Dayton Superior Corporation, Inc.
“Tilt-Eez”, Conspec Marketing and Manufacturing Co., Inc.

II. Joint-Filler Strips for Isolation Joints in Slabs-on-Grade: ASTM D 1751, asphalt-saturated cellulosic fiber, or ASTM D 1752, cork or self-expanding cork. In post-tensioned slabs or shrinkage-compensated slabs, use compressible isolation-joint filler material that does not develop a stress greater than 25 psi at 50% strain when tested in accordance with ASTM D 1621 or D 3575.

JJ. Rigid-Cellular-Polystyrene Boards use as Fill under Topping Slabs or Slabs-on-Grade: Provide rigid, expanded (EPS) or extruded (XPS) cellular polystyrene boards that conform to ASTM D 6817 or ASTM C 578 with a minimum density of [Polystyrene Density] kg/m^3. Subject to compliance with requirements, acceptable manufacturers include the following:

“STYROFOAM Brand” Dow Chemical Company
“R-Control EPS Geofoam” - All grades, R-Control Building Systems “EPS Geofoam”, Carpenter Co.
“Knauf Geofoam”, Knauf Polystyrene “Insulfill”, Premier Industries

2.3 PROPORTIONING AND DESIGN OF CONCRETE MIXES

A. The Contractor shall submit concrete mix designs and the Concrete Mix Design Submittal Form located at the end of this specification section for each class of concrete indicated on the structural drawings and in the Specifications for approval by the Engineer and Owner's Testing Laboratory at least 15 working days prior to the start of construction,. If required, the Contractor shall engage the services of an independent Testing Laboratory to assist in preparing the mix design. The Contractor shall not begin work with a particular mix until that mix design has been approved.

B. Mix Design Conference: See the PREINSTALLATION CONFERENCES section of this specification.

C. The Contractor, acting in conjunction with his Concrete Supplier and his Testing Laboratory, shall submit in writing, with his mix designs, the method used to select mix proportions. Either of the following methods, as outlined in ACI 301, may be used.

1. Field Experience Method

2. Laboratory Trial Mixture Method

D. Required types of concrete and compressive strengths shall be as indicated on the Structural Drawings.

E. All mix designs shall state the following information:

1. Mix design number or code designation by which the Contractor shall order the concrete from the Supplier.

2. Structural slab or member for which the concrete is designed (i.e., columns, shear walls, footings, slab on grade, etc.).

3. Wet and dry unit weight.

4. 28-day compressive strength.

5. Aggregate type, source, size, gradation, fineness modulus.

6. Cement type and brand.

7. Fly ash or other pozzolan type and brand (if any).

8. Admixtures including air entrainment, water reducers, high-range water reducers, accelerators, and retarders.

9. Design Slump or Slump/Flow.

10. Proportions of each material used.

11. Water/cementitious ratio and maximum allowable water content.

12. Method by which the concrete is intended to be placed (bucket, chute, or pump).

13. Required average strength qualification calculations per ACI 301 4.2.3.3a and 4.2.3.3b. Submit separate qualification calculations for each production facility that will supply concrete to the project.

14. Documentation of Average strength (trial mix data or field test data) per ACI 301: When field test data is used to qualify average strength, submit separate documentation for each production facility that will supply concrete to the project.

15. Field test data submitted for qualification of average strength under ACI 301 shall include copies of the Concrete Testing Labratory's reports from which the data was compiled.

16. All other information requested in the Concrete Mix Design Submittal Form located at the end of this specification section.

F. Low Alkali Concrete: For concrete identified on the drawings as exposed to exposure classes C1 and C2, the total alkali contribution from cementitious materials in the concrete mix shall not exceed 4.0 pounds per cubic yd of concrete unless the aggregate used is certified to contain no deleterious materials that react with alkalis in the concrete mix as defined in ASTM C 33. This requirement may be met by the use of low-alkali cement.

G. Supplementary Cementitious Materials: Fly ash and/or ground granulated blast-furnace slag replacement of Portland cement shall be within percentage replacement levels listed on the drawings unless noted otherwise. Every effort should be made to reduce the amount of cement to the minimum practical amount, and still achieve performance requirements contained in the Contract Documents.

1. Cement replacement shall not exceed a percentage level that has been shown by experience on other projects to exhibit satisfactory performance using materials from identical sources as proposed for this project. As an alternate, trial concrete batches can be performed to identify mix designs that maximize cement replacement while meeting strength requirements per ACI 318 Section 5.3 and finishability criteria.

2. The use of fly ash or slag in architecturally exposed structural concrete shall be coordinated with the Engineer and Contractor.

3. If fly ash is used, it must be at a minimum replacement percentage of 15%.

4. Overall replacement percentages with combined fly ash and slag shall not exceed the maximum identified with slag or be less than the minimum identified with fly ash for each type of element. In addition, the replacement percentage of fly ash within the combined mix shall not exceed the maximum identified with fly ash alone.

5. Replacement percentages exceeding the maximum may be permitted

at the discretion of the Engineer and Contractor.

6. For concrete identified on the drawings as being subject to Exposure Class F3, the maximum amount of supplementary cementitious materials shall not exceed the limits noted in table 4.4.2 of ACI 318-08

7. Except for Mass Concrete, the Contractor may submit for approval a revised mix design with lower supplementary cementitious material percentages than herein specified should finishability or other issues arise due to changing weather conditions.

H. Aggregate: Comply with the following special requirements:

1. For exposed concrete, provide aggregates from a single source.

2. For exposed surfaces subject to Exposure Class C1 or C2, do not use aggregates containing spalling-causing deleterious substances.

3. For slabs and other designated concrete, combined aggregate gradation shall be 8% - 18% for large top size aggregates (1 1/2 in.) or 8% - 22% for smaller top size aggregates (1 in. or 3/4 in.) retained on each sieve below the top size and above the No. 100. Deviations from this gradation may be allowed upon the approval of the Engineer subject to the following limitations:

   a. The percent retained on two adjacent sieves shall be not less than 5%.
   b. The percent retained on three adjacent sieves shall be not less than 8%
   c. If the percent retained on two adjacent sieves is less than 8%, the total percent retained on either of those sieves and the adjacent outside sieve shall be not less than 13 %

I. Admixtures:

1. Admixtures to be used in concrete shall be subject to the approval of the Engineer and Owner's Testing Laboratory and shall be used for the purpose intended by the manufacturer to produce concrete to meet the specified requirements.

2. Quantities of admixtures to be used shall be in strict accordance with the manufacturer’s instructions.

3. Air Content Requirements: For concrete subject to Exposure Class F1, F2 or F3 as noted on the drawings, use air-entrainment admixtures to provide concrete such that the air content at the point of delivery shall conform to the requirements of Table 4.4.1.of ACI 318-08 within plus or minus 1.5%. Required air content levels may be reduced by 1.0 percent for concrete strengths above 5000 psi.

   a. Interior steel troweled surfaces subjected to vehicular traffic shall not have more than 3% entrained air.
   b. Surfaces scheduled to receive hardeners shall not have more

than 3% entrained air.

c. Air-entraining admixtures are not permitted in industrial slabs.

4. Self-consolidating Concrete (SCC): Use where shown on the drawings. Proportion SCC mix with specified admixtures to produce a concrete having properties that allow it to flow freely into all spaces of the formwork, through tight openings under its own weight and is resistant to segregation during transport and placing. Flowable spread shall be between 20 to 30 inches and shall show no evidence of segregation, mortar halo, or aggregate pile, although some slight bleeding is acceptable. Workability, pumpability, finish, and setting time of the proposed mix design must be demonstrated by a successful trial placement onsite.

J. Lightweight Structural Concrete:

1. Comply with the requirements of ACI 211 and ACI 301.

2. Provide concrete with a dry unit weight of not more than 116 pounds per cubic foot and not less than 110 pounds per cubic foot. Design mix to produce strengths as indicated on the drawings with a split cylinder strength factor (fct/(f'c)0.5) of not less than 5.7.

K. Adjustments of Concrete Mixes: Mix design adjustments may be requested by the Contractor when characteristics of materials, job conditions, weather, test results, or other circumstances warrant. Such mix design adjustments shall be provided at no additional cost to the Owner. Any adjustments in approved mix designs including changes in admixtures shall be submitted in writing with the specified Concrete Mix Design Submittal Form to the Engineer and Owner's Testing Laboratory for approval prior to field use.

L. Shrinkage: Concrete so identified on the drawings shall be proportioned for maximum allowable unit shrinkage as noted on the drawings, measured at 28 days after curing in lime water as determined by ASTM C 157 (using air storage). Submit results of test for each class of applicable concrete after every 500 CY placed.

M. Chloride Ion Content:

1. Unless noted otherwise, The maximum water soluble chloride ion concentration in hardened concrete measured at ages from 28 to 42 days contributed from all ingredients including water, aggregates, cementitious materials, and admixtures shall not exceed the limits specified in ACI 318-08 Table 4.3.1 depending on to which Corrosion Exposure Class (CO, C1 or C2) the concrete is subject as noted on the drawings. Water-soluble chloride ion tests shall conform to ASTM C 1218. One test shall be run for each class of concrete before the mix design submittal and each time a change is made to the mix design (such

as change in aggregate type or source).

2. The chloride ion content in all concrete used for prestressed or post-tensioned concrete shall not exceed .06 percent by weight of cement.

3. The Concrete Supplier shall certify on the Mix Design Submittal Form that the chloride ion content in all concrete mix designs used on the project does not exceed the limits stated above.

2.4 CONCRETE MIXING

A. Ready-Mix Concrete: Comply with requirements of ANSI/ASTM C 94, "Ready Mixed Concrete" and Testing Laboratory section of the specifications this specification .

PART 3 - EXECUTION

3.1 SLUMP LIMIT

A. The slump, as measured in the field where concrete cylinders are taken, shall be within plus or minus 1 inch of the design slump noted on the Mix Design Submittal Form. Self- consolidating concrete shall have a slump/flow of plus or minus 2 inches of the design slump noted on the Mix Design Submittal Form. Water may be added to the concrete in the field only to the extent that the prescribed water/cementitious ratio noted in the Mix Design Submittal Form is not exceeded.

3.2 VAPOR RETARDER INSTALLATION

A. Install vapor retarder in accordance with ASTM E 1643 and manufacturer's instructions.

B. Lap all seams 6" and seal all joints in the field with the specified pressure sensitive tape. Heat-welded joints done in a shop prior to delivery is an acceptable method to minimize the number of field joints.

C. Seal all pipe penetrations through the vapor retarder with a boot made from the vapor retarder material and tape.

3.3 JOINTS IN CONCRETE

A. Construction Joints: Locate and install construction joints as indicated on the drawings or if not shown on drawings, located so as not to impair strength and appearance of the structure, as acceptable to Engineer.

1. Keyways: Provide continuous keyways with a depth of one tenth of the member thickness (1 1/2" minimum or as shown on the drawings) in

construction joints only where shown on the drawings.

2. Joint Construction: Place construction joints in the center one third of suspended spans and grade beams and as shown on the drawings for slabs-on-grade and walls unless shown otherwise. Offset joints in girders a minimum distance of twice the beam width from a beam-girder intersection. Place joints perpendicular to main reinforcement. Continue reinforcement across construction joints unless otherwise shown on the drawings. Dowels that cross construction joints shall be supported during concreting operations so as to remain parallel with the slab or wall surface and at right angles to the joint. Submit all construction joint locations as a shop drawing submittal.

3. Waterstops: Provide waterstops in construction joints as indicated on the Architectural and Structural Drawings. Install waterstops to form continuous diaphragm in each joint. Make provisions to support and protect exposed waterstops during progress of work. Fabricate field joints in waterstops in accordance with manufacturer's printed instructions.

4. Isolation Joints in Slabs-on-Ground: Construct isolation joints (without dowels) in slabs-on-ground at points of contact between slabs on ground and vertical surfaces only where specifically detailed on the drawings. Install joint-filler strips at joints where indicated. Extend joint-filler strips full width and depth of joint, terminating flush with finished concrete surface, unless otherwise indicated on the drawings. Install joint-filler strips in lengths as long as practicable. Where more than one length is required, lace or clip sections together. Provide construction joints with dowels at all locations unless isolation joints are detailed.

5. Contraction joints in slabs-on-grade and unbonded topping slabs: Maximum joint spacing shall be 36 times the slab thickness or 20 feet, whichever is less and at a minimum on column lines unless otherwise noted on the drawings. Use one of the two following methods (sawed or formed) to create the joints. Do not use the formed joint in areas subject to vehicular traffic or in industrial slabs.

    a. Sawed Joints
        (1) Primary Method: Early-Entry, dry-cut method, by Soff-Cut International, Corona, CA (800) 776-3328. Finisher must have documented successful experience in the use of this method prior to this project. Install cuts within 1 to 4 hours, depending on air temperature, after final finish as soon as the concrete surface is firm enough to not be torn or damaged by the blade at each saw cut location. Use 1/8 inch thick blade, cutting 1 1/4” inch into the slab.
        (2) Optional Method (where Soff-Cut System method

equipment is not available, subject to limitations): This method may not be used when there is no dowel passing through the contraction joint. Use a conventional saw to cut joints within 4 to 12 hours after finishing as soon as the concrete has hardened sufficiently to prevent aggregates from being dislodged by the saw. Complete cutting before shrinkage stresses become sufficient to produce cracking. Use 1/8 inch thick blade, cutting to a depth of 1/4 of the slab thickness but not less than 1 inch. Cut to a depth of 1/3 slab thickness for slabs reinforced with steel fibers.

b. Formed Joints: Form contraction joints by inserting premolded plastic hardboard or fiberboard strip into fresh concrete until top surface of strip is flush with slab surface. The depth is to be 1/4 the slab thickness, but not less than 1 inch. Tool slab edges round on each side of insert. After concrete has cured, remove inserts and clean groove of loose debris.

c. Joint Filler: Provide in both contraction and saw-cut construction joints when specified.

(1) Remove dirt and debris from the joint by vacuuming immediately prior to filling the joint. Clean the joint of curing compounds and sealers.

(2) Filler material shall be applied to the joints when the building is under permanent temperature control, but no less than 90 days after slab construction.

(3) Follow the manufacturer's recommended procedure for installing filler material. The joint filler must be flush with the adjacent concrete. A concave profile on the top of the joint filler is unacceptable and will be grounds for removal and replacement.

d. The Contractor shall protect the joints from damage caused by wheeled traffic or other sources during construction until a joint-filler material (if specified) has been installed.

3.4 INSTALLATION OF EMBEDDED ITEMS

A. General: Set and build into work anchorage devices and other embedded items required for other work that is attached to, or supported by, cast-in-place concrete. Use setting drawings, diagrams, instructions and directions provided by suppliers of items to be attached thereto unless directed otherwise by these specifications. Install reglets to receive top edge of foundation sheet waterproofing where specified by the Engineer, and to receive thru-wall flashings in outer face of concrete frame at exterior walls, where flashing is shown at lintels, relieving angles and other conditions.

B. Anchor Rods: Furnish anchor rods and other connectors required for securing structural steel to foundations and other in-place work as shown on the drawings. Furnish 1/8" minimum steel templates for presetting rods and other

anchors to accurate locations as shown on the drawings in keeping with the tolerances noted in ACI 117 for embedded anchor rods. Steel template shall be clearly marked with the following information:

1. Grid line intersection where template is to be used.

2. Orientation of the plate relative to the building grid lines.

3. “Top of Template” elevation.

4. Anchor rod projection above top of template.

C. Edge Forms and Screed Strips for Slabs: Set edge forms or bulkheads and intermediate screed strips for slabs to obtain required elevations and contours in finished slab surface. Provide and secure units sufficiently strong to support types of screed strips by use of strike-off templates or accepted compacting type screeds.

D. Do not install sleeves and blockouts in concrete slabs, pier caps, footings or walls except where shown on the structural drawings or approved by the Engineer.

E. Securely fasten embedded plates, angles, anchor rods and other items to be built into the concrete to the formwork or hold in place with templates. Insertion of these items into concrete after casting is prohibited.

3.5 CONCRETE PLACEMENT

A. Pre-placement Inspection: Before placing concrete, inspect and complete formwork installation, reinforcing steel and items to be embedded or cast-in. Notify other crafts to permit installation of their work; cooperate with other trades in setting such work. Moisten wood forms immediately before placing concrete where form coatings are not used.

B. Coordinate the installation of joint materials and vapor retarders with placement of forms and reinforcing steel.

C. Comply with ACI 301 and as herein specified.

1. Concrete Temperature: The maximum acceptable concrete temperature at the truck discharge point shall be 95 °F.

2. Deposit concrete continuously or in layers of such thickness that no concrete will be placed on concrete which has hardened sufficiently to cause the formation of seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as herein specified. Deposit concrete as nearly as practicable to its final location to avoid segregation. Spread concrete using short-handled, square-ended shovels, or come-alongs.

3. Placing Concrete in Forms: Deposit concrete in forms in horizontal layers not deeper than 24" and in a manner to avoid inclined construction joints. Where placement consists of several layers, place each layer while preceding layer is still plastic to avoid cold joints.

4. Consolidate placed concrete by mechanical vibrating equipment supplemented by hand-spading, rodding or tamping. Use internal vibrators of the largest size and power that can properly be used in the work as described in the table entitled “Range of characteristics, performance, and applications of internal vibrators” found in ACI 301.

5. Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations not farther than visible effectiveness of machine. Place vibrators to rapidly penetrate placed layer and at least 6" into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to set. At each insertion limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing segregation of mix.

6. Placing Concrete Slabs: Deposit and consolidate concrete slabs in a continuous operation, within limits of construction joints, until the placing of a panel or section is completed. Place concrete for beams, girders, brackets, column capitals, haunches, and drop panels at the same time as concrete for slabs. Do not place concrete over columns and walls until concrete in columns and walls is no longer plastic and has been in place at least one hour.

7. Consolidate concrete during placing operations so that concrete is thoroughly worked around reinforcement and other embedded items and into corners of forms, eliminating air and stone pockets that may cause honeycombing, pitting, or planes of weakness.

8. Bring slab surfaces to correct level with straightedge and strikeoff. Use highway straightedges, bull floats or darbies to smooth surface free of humps or hollows before excess moisture or bleedwater appears on the surface. Do not disturb slab surfaces prior to beginning finishing operations.

9. Maintain reinforcing in proper position during concrete placement operations.

10. Placing Concrete by Pump: If concrete is placed by using a pump, the grout used for pump priming must not become a part of the completed structure unless an engineered grout design mix and grout location are approved in advance by the Engineer.

3.6 FINISH OF FORMED SURFACES

A. General: Formed surfaces shall have the finishes as described below and as shown on the drawings after formwork is removed and repairs made.

B. Matching Sample Finish: Finish on surfaces at locations noted on drawings shall match sample panel furnished to Contractor. Reproduce finish on a 100 square foot mock-up panel in a location designated by Engineer. Protect mock-up from damage for the duration of project. Approval of mock-up by Engineer is required before proceeding with application of finish in project.

C. Definitions and Finish Requirements

1. Surface Finish 1.0 (SF-1.0):

    a. No formwork facing material is specified
    b. Patch voids larger than 1-1/2 in. wide or 1/2 in. deep
    c. Remove projections larger than 1.0 inch.
    d. Provide surface tolerance Class D as specified in ACI 117
    e. Tie holes need not be patched

2. Surface Finish 1.1 (SF-1.1):

    a. No formwork facing material is specified
    b. Patch voids larger than 1 in. wide or 1/2 in. deep
    c. Remove projections larger than 1/2 inch.
    d. Provide surface tolerance Class C as specified in ACI 117
    e. Tie holes need not be patched

3. Surface Finish 2.0 (SF-2.0):

    a. Provide specified formwork-facing material
    b. Patch voids larger than 3/4 in. wide or 1/2 in. deep
    c. Patch tie holes
    d. Remove projections larger than 1/4 in.
    e. Provide surface tolerance Class B as specified in ACI 117
    f. Provide mock-up of concrete surface appearance.

4. Surface Finish 2.1 (SF-2.1):

    a. Provide specified formwork-facing material
    b. Patch voids larger than 3/4 in. wide or 1/2 in. deep
    c. Patch tie holes
    d. Remove projections larger than 1/4 in.
    e. Provide surface tolerance Class B as specified in ACI 117
    f. Provide specified rubbed finish after formwork removal
    g. Provide mock-up of concrete surface appearance.

5. Surface Finish 2.2 (SF-2.2):

    a. Provide specified formwork-facing material
    b. Patch voids larger than 3/4 in. wide or 1/2 in. deep
    c. Patch tie holes
    d. Remove projections larger than 1/4 in.
    e. Provide surface tolerance Class B as specified in ACI 117

6. Surface Finish 2.3 (SF-2.3):

    a. No formwork-facing material is specified
    b. Patch voids larger than 3/4 in. wide or 1/2 in. deep
    c. Patch tie holes
    d. Remove projections larger than 1/4 in.
    e. Provide surface tolerance Class B as specified in ACI 117

7. Surface Finish 3.0 (SF-3.0):

    a. Provide specified formwork facing material
    b. Patch voids larger than 3/4 in. wide or 1/2 in. deep
    c. Remove projections larger than 1/8 inch.
    d. Patch tie holes
    e. Provide surface tolerance Class A as specified in ACI 117
    f. Provide mock-up of concrete surface appearance.

8. Surface Finish 3.1 (SF-3.1):

    a. Provide specified formwork-facing material
    b. Patch voids larger than 3/4 in. wide or 1/2 in. deep
    c. Patch tie holes
    d. Remove projections larger than 1/8 in.
    e. Provide surface tolerance Class A as specified in ACI 117

f. Provide specified rubbed finish after formwork removal
g. Provide mock-up of concrete surface appearance.

9. Surface Finish 3.2 (SF-3.2):

a. Provide specified formwork-facing material
b. Patch voids larger than 3/4 in. wide or 1/2 in. deep
c. Patch tie holes
d. Remove projections larger than 1/8 in.
e. Provide surface tolerance Class A as specified in ACI 117

10. Surface Finish 3.3 (SF-3.3):

a. No formwork-facing material is specified
b. Patch voids larger than 3/4 in. wide or 1/2 in. deep
c. Patch tie holes
d. Remove projections larger than 1/8 in.
e. Provide surface tolerance Class A as specified in ACI 117

D. Standard Finish: Provide SF-1.0 on all concrete surfaces not exposed to view in the final condition unless otherwise specified.

E. Exposed Finishes: Provide SF-2.0 on all concrete surfaces exposed to view in final condition unless otherwise specified.

F. Rubbed Finishes: Remove forms as early as permitted by these specifications and perform any necessary repairs and patches.

1. Smooth Rubbed Finish: Provide smooth rubbed finish to scheduled or specified concrete surfaces which have received smooth-form finish treatment, not later than one day after form removal. Moisten concrete surfaces and rub with carborundum brick or other abrasive until a uniform color and texture is produced. Do not apply cement grout other than that created by the rubbing process.

2. Grout Cleaned Finish: Provide grout cleaned finish to scheduled or specified concrete surfaces that have received smooth-form finish treatment.

a. Combine one part portland cement to 1-1/2 parts sand meeting the requirements of ASTM C144 and C404 by volume, and 50:50 mixture of acrylic or styrene butadiene based bonding admixture and water to consistency of thick paint. Proprietary additives may be used at Contractor's option. Blend standard portland cement and white portland cement, amounts

determined by trial patches, so that final color of dry grout will closely match adjacent surfaces.

b. Thoroughly wet concrete surfaces and apply grout to coat surfaces and fill small holes. Remove excess grout by scraping and rubbing with clean burlap. Keep damp by fog spray for at least 36 hours after rubbing.

3. Cork-floated Finish: Provide cork-floated finish to scheduled or specified concrete surfaces that have received smooth-form finish treatment.

a. Combine one part portland cement to one part sand meeting the requirement of ASTM C144 or C404, by volume and water and mix to a to consistency of thick paint. Apply stiff to a wet surface, compressing the grout into all voids.

b. Produce the final finish with a cork float using a swirling motion.

G. Self-Consolidating Concrete Architectural Finish: Use self-consolidating concrete where shown on the plans to produce a smooth, uniform finish upon form removal with no patching, stoning, rubbing or other form of repair, except washing, permitted. The surface shall match the approved jobsite test panel.

H. Related Unformed Surfaces: At tops of walls, horizontal offsets and similar unformed surfaces occurring adjacent to formed surfaces, strike-off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces, unless otherwise indicated.

3.7 MONOLITHIC SLAB FINISHES

Place, consolidate, strike off, and level concrete, eliminating high spots and low spots, before proceeding with any other finish operation. Do not add water to the surface of the concrete during finishing operation.

A. Scratch Finish: Apply scratch finish to monolithic slab surfaces that are to receive concrete floor topping or mortar setting beds for tile, portland cement terrazzo and other bonded applied cementitious finish flooring material, and as otherwise indicated. After placing slabs, plane surface to tolerance specified below. Slope surfaces uniformly to drains where required. After leveling, roughen surface before final set, with stiff brushes, brooms or rakes.

B. Float Finish: Apply float finish to monolithic slab surfaces to receive trowel finish and other finishes as hereinafter specified, and slab surfaces which are to be covered with membrane or elastic waterproofing, membrane or elastic roofing, or sand-bed terrazzo, and as otherwise indicated. After screeding, consolidating and leveling concrete slabs, do not work surface until ready for floating. Begin floating, using a hand float, a bladed power float equipped with float shoes, or a powered disk float, when the bleed water sheen has disappeared and the concrete surface has stiffened sufficiently to permit the operation. Check and

level surface plane to a tolerance as specified below. Cut down high spots and fill low spots. Uniformly slope surfaces to drains. Immediately after leveling, refloat surface to a uniform, smooth, granular texture.

C. Trowel Finish: Apply trowel finish to monolithic slab surfaces to be exposed-to-view, and slab surfaces to be covered with resilient flooring, carpet, ceramic or quarry tile, paint or other thin film finish coating system. After floating, begin first trowel finish operation by hand or power-driven trowel. Begin final troweling when surface produces a ringing sound as trowel is moved over surface. Consolidate concrete surface by final hand- troweling operation, free of trowel marks, uniform in texture and appearance, and with a level surface to a tolerance as specified below. Grind smooth surface defects which would telegraph through applied floor covering system.

D. Trowel and Fine Broom Finish: Where ceramic or quarry tile is to be installed with thin- set mortar, apply initial trowel finish as specified above, then immediately follow with slightly scarifying surface by fine brooming.

E. Slip-Resistive Broom Finish: Apply slip-resistive broom finish to garage floors and ramps less than 6% slope, exterior concrete platforms, steps and ramps and elsewhere as indicated. Immediately after float finishing, slightly roughen concrete surface by brooming with fiber bristle broom perpendicular to main traffic route. Coordinate required final finish with Engineer before application.

F. Roller-Bug Finish: Provide a roller-bug finish with minimum ¼" amplitude to all ramps exceeding a 6% slope. Extend the finish as least 12 feet beyond the beginning and ending of the greater-than-6% ramp. The finish shall be imprinted on the concrete by the use of a roller-bug tamper.

G. Chemical-Hardener Finish: Apply chemical-hardener finish to interior concrete floors where indicated. Apply liquid chemical-hardener after complete curing and drying of the concrete surface. Apply proprietary chemical hardeners, in strict accordance with manufacturer's printed instructions.

After final coat of chemical-hardener solution is applied and dried, remove surplus hardener by scrubbing and mopping with water.

H. Liquid Sealer/Densifier Finish: Apply liquid sealer/densifier finish to exposed interior concrete floors where indicated. Apply liquid sealer/densifier after complete curing and drying of the concrete surface and in strict accordance with manufacturer's printed instructions.

I. Penetrating Sealer Finish: Apply a chloride-and-water-repelling-penetrating-sealer finish to surfaces as described below and where indicated on the drawings. Apply liquid penetrating sealer after complete curing and drying of the concrete surface. Apply proprietary sealers in strict accordance with manufacturer's printed instructions. The Contractor shall verify the compatibility of the sealer product with the paint used to stripe parking decks

and coordinate the sequencing of the sealing and striping operations. Apply to the following surfaces:

1. Sloping and horizontal surfaces of parking garages

2. Top surfaces of exposed exterior balconies

J. Slip-Resistive Aggregate Finish: Apply slip-resistive aggregate finish to concrete stair treads, platforms, ramps and elsewhere as indicated on the Structural Drawings.

After completion of float finishing, and before starting trowel finish, uniformly spread 25 lbs. of dampened slip-resistive aggregate per 100 sq. ft. of surface. Tamp aggregate flush with surface using a steel trowel, but do not force below surface. After broadcasting and tamping, apply trowel finishing as herein specified.

After curing, lightly work surface with a steel wire brush, or an abrasive stone, and water to expose slip-resistive aggregate.

K. Colored, Mineral Aggregate Surface Hardener: Provide colored, mineral aggregate surface hardener to monolithic slab surface indicated.

Apply dry shake materials for colored wear-resistant finish at rate of not less than 100 lbs. per 100 sq. ft., unless greater amount is recommended by material manufacturer.

Cast a trial slab approximately 20 feet square to determine actual application rate, color and finish as acceptable to Engineer.

Immediately following first floating operation, uniformly distribute approximately 2/3 of required weight of dry shake material over concrete surface, and embed by means of power floating. Follow floating operation with second shake application, uniformly distributing remainder of dry shake material at right angles to first application, and embed by power floating.

After completion of broadcasting and floating, apply trowel finish as herein specified. Cure slab surface with curing compound recommended by dry shake hardener manufacturer. Apply curing compound immediately after final finishing.

L. Non-Oxidizing Metallic Floor Hardener: Slabs in areas noted on the drawings shall receive an application of the non-oxidizing, metallic floor hardener applied at the rate of

150 lbs. Per 100 sq. ft. Immediately following the first floating operation, uniformly distribute approximately 2/3 of the required weight of the hardener over the concrete surface by mechanical spreader and embedded by means of power floating. The hardener shall be floated in and the second application made. The surface shall be floated again to properly bond the hardener to the base concrete slab. The surface shall then be troweled at least twice to a smooth dense finish.

M. Metallic Aggregate Floor Hardener: Slabs in areas noted on the drawings shall receive an application of the metallic aggregate floor hardener applied at the

rate of 150 lbs. Per 100 sq. ft. Immediately following the first floating operation, uniformly distribute approximately 2/3 of the required weight of the hardener over the concrete surface by mechanical spreader and embedded by means of power floating. The hardener shall be floated in and the second application made. The surface shall be floated again to properly bond the hardener to the base concrete slab. The surface shall then be troweled at least twice to a smooth dense finish.

N. Finish of Top of Spread Footings and/or Mat Foundations:

1. Top Surface below Finished Slab: The top of the footing or mat shall be screeded level and smooth with a flatness F-number, FF15 (overall), FF10 (minimum local) and a levelness F-number, FL12 (overall), FL10 (minimum local).

2. Top Surface as Finished Slab: The top surface of a footing or mat that is to serve as the finished slab in the building shall be leveled cured, and surface prepared as specified for the finished floor construction appropriate to the space usage as defined in the Architectural Drawings.

3.8 CONCRETE FINISH MEASUREMENT AND TOLERANCES

A. Testing Procedure: ASTM E 1155

B. Tolerance on Floor Elevations: Construction tolerance on absolute floor elevation from the specified elevation as shown on the drawings shall be as specified below, taken from ACI 117:

1. Slab-on-Grade Construction - $\pm$ 3/4".

2. Top surfaces of formed slabs measured prior to removal of supporting shores -

$\pm$ 3/4".

3. Top surfaces of all other slabs - $\pm$ 3/4".

C. Random Traffic Floor Finish Tolerances:

1. Specified overall values for flatness (SOFF) and levelness (SOFL) shall conform to the values listed below for the floor surface classification noted for each slab category noted.

Floor Surface Classification	SOFF	SOFL
Conventional	20	15
Moderately Flat	25	20
Flat	35	25
Very Flat	45	35
Super Flat	60	40

2. Minimum local values for flatness (MLFF) and levelness (MLFL) shall equal 3/5 of the SOFF and SOFL values, respectively, unless noted otherwise. The MLFF and MLFL values shall apply to the minimum areas bounded by the column lines and half-column lines, or the minimum areas bounded by the construction and contraction joints, whichever are the smaller areas.

3. The SOFL and MFLL tolerance values shall apply only to level slabs-on-ground or to level, uncambered suspended slabs that are shored such that it cannot deflect from the time the floor is placed to the time it is measured.

4. Slabs specified to slope shall have a tolerance from the specified slope of 3/8" in 10 feet at any point.

D. Construction Requirements to Achieve Specified Floor Finish Tolerances:

1. Forms shall be properly leveled, in good condition and securely anchored including special attention to ends and transitions.

2. Bearing surfaces for straightedges such as form edges or previously poured slabs shall be kept clean of laitance, sand, gravel, or other foreign elements.

3. Screeds shall be maintained in good condition with true round rolling wheels and level cutting edges. The use of optical sighting equipment such as lasers is recommended for checking levelness and straightness. The Contractor shall promptly adjust or replace equipment when test results indicate substandard work.

4. Highway straightedges are recommended for use in lieu of bullfloats for all slab placement and finishing operations.

E. Contractor Responsibility for Concrete Floor Finish Requirements: Floor finish requirements shown below (flatness and levelness tolerances) are minimum requirements that apply unless stricter requirements are contained in instructions for installation of applied floor products in which case the Contractor is responsible for attaining the values prescribed by the manufacturer of such products.

F. Concrete Floor Finish Tolerance for Slab-on-Grade Construction:

1. Concrete Placement: Concrete shall be placed and screeded to predetermined marks set to elevations prescribed on the drawings.

2. Finish Tolerances of Random Traffic Floor Surfaces:

a. Slabs in nonpublic areas, mechanical rooms, surfaces to received raised computer flooring, surfaces to have thick-set tile or a topping, and parking structures: Conventional
b. Carpeted Areas: Moderately Flat
c. Industrial Slabs: Moderately Flat
d. Exposed slabs in public spaces, slabs to receive thin-set flooring: Flat
e. Ice or Roller rinks: Very Flat
f. Movie or Television studios: Super Flat
g. Gymnasium Floors Scheduled to Receive Wood Playing Floor: Very Flat

G. Concrete Floor Finish Tolerance for Shored, Cast-in-Place Suspended Slab Construction:

1. Concrete Placement: Formwork shall be set and securely braced so that soffits are positioned to allow scheduled concrete member sizes and thicknesses within tolerances specified in ACI 117. Concrete shall be placed and screeded to predetermined marks on the form surface conforming to elevations prescribed on the drawings.

2. Camber: Formwork camber, as indicated on the drawings, shall be set to provide a uniform, smooth soffit profile in each direction. Minimum slab thickness, as specified on the drawings, shall be maintained throughout the slab surface to a tolerance as specified in ACI 117. Tolerance on camber shall be $\pm$ 1/4". Levelness F-Number tolerances specified below does not apply to areas of the floor where camber or intentional slope is shown.

3. Finish Tolerances of Random Traffic Floor Surfaces:

a. Slabs in nonpublic areas, mechanical rooms, surfaces to received raised computer flooring, surfaces to have thick-set tile or a topping, and parking structures: Conventional
b. Carpeted Areas: Moderately Flat
c. Exposed slabs in public spaces, slabs to receive thin-set flooring: Flat
d. Movie or Television studios: Super Flat

4. Extra Concrete: The contractor shall include in his bid any additional concrete required to achieve the specified slab surface finish tolerance.

5. Concrete Placement at Column Bays Supported by unshored transfer girders: Concrete in floor areas supported by unshored transfer girders shall be placed and screeded to predetermined marks placed over the slab conforming to elevations as specified on the drawings. At least the minimum slab thickness, as specified on the drawings, shall be maintained throughout the slab surface. The Contractor shall conform to the FF values specified above.

H. Concrete Floor Finish Tolerance - Unshored Metal Deck on Shored or Unshored Steel Beam or Open-Web Joist Floor Construction:

1. Concrete Placement: Concrete over metal deck shall be placed and screeded level and flat to the tolerance specified below, maintaining at least the minimum slab thickness at all locations as specified on the drawings. The Contractor shall increase the slab thickness as required to compensate for metal deck deflection, and in unshored beam construction, residual beam camber and beam deflection in order to achieve a level and flat floor within specified tolerances.

2. Finish Tolerance of Random Traffic Floor Surfaces:

a. Slabs in nonpublic areas, mechanical rooms, surfaces to received raised computer flooring, surfaces to have thick-set tile or a topping, and parking structures: Conventional
b. Carpeted Areas: Moderately Flat
c. Exposed slabs in public spaces, slabs to receive thin-set flooring: Flat
d. Movie or Television studios: Super Flat
e. Eighty percent (80%) of the final floor surface shall fall within an envelope of 0.75" centered about the mean elevation of all the readings. (± 0.375 about mean). The mean elevation of all readings shall not deviate from the specified design grade by more than ± 0.375".

3. Extra Concrete: The contractor shall include in his bid any additional concrete required to achieve the specified slab surface finish tolerance

and to compensate for metal deck deflection, beam camber and beam deflection.

4. Concrete Placement at Column Bays Supported on Transfer Girders or Trusses: Concrete in floor areas supported by transfer girders or trusses shall be placed and screeded to predetermined marks placed over the metal deck slab conforming to elevations as specified on the drawings. At least the minimum slab thickness, as specified on the drawings, shall be maintained throughout the slab surface. The Contractor shall conform to the FF values specified above.

l. Remedial Measures for Slab Finish Construction Not Meeting Specified Tolerances:

1. Application of Remedial Measures. Remedial measures specified herein are required whenever either or both of the following occur:

a. The composite overall values of FF or FL of the entire floor installation measure less than specified values.
b. Any individual test section measures less than the specified absolute minimum FF or FL value.

2. Modification of Existing Surface:

a. If, in the opinion of the Engineer or Owner's Representative, all or any portion of the substandard work can be repaired without sacrifice to the appearance or serviceability of the area, then the Contractor shall immediately undertake the approved repair method.
b. The Contractor shall submit for review and approval a detailed work plan of the proposed repair showing areas to be repaired, method of repair and time to affect the repair.
c. Repair method(s), at the sole discretion of the Engineer or Owner's Representative, may include grinding (floor stoning), planing, retopping with self leveling underlayment compound or repair topping, or any combination of the above.
d. The Engineer or Owner's Representative maintains the right to require a test repair section using the approved method of repair for review and approval to demonstrate a satisfactory end product. If, in the opinion of the Engineer or Owner's Representative, the repair is not satisfactory an alternate method of repair shall be submitted or the defective area shall be replaced.

e. The judgment of the Engineer or Owner's Representative on the appropriateness of a repair method and its ability to achieve the desired end product shall be final.
f. All repair work shall be performed at no additional cost to the Owner and with no extension to the construction schedule.

3. Removal and Replacement:

a. If, in the opinion of the Engineer or Owner's Representative, all or any portion of the substandard work cannot be satisfactorily repaired without sacrifice to the appearance or serviceability of the area, then the Contractor shall immediately commence to remove and replace the defective work.
b. Replacement section boundaries shall be made to coincide with the test section boundaries as previously defined.
c. Sections requiring replacement shall be removed by sawcutting along the section boundary lines to provide a neat clean joint between new replacement floor and existing floor.
d. The new section shall be reinforced the same as the removed section and doweled into the existing floor as required by the Engineer. No existing removed reinforcing steel may be used. All reinforcing steel shall be new steel.
e. Replacement sections may be retested for compliance at the discretion of the Engineer or Owner's Representative.
f. The judgment of the Engineer or Owner's Representative on the need for replacement shall be final.
g. All replacement work shall be performed at no additional cost to the Owner and with no extension to the construction schedule.

3.9 CONCRETE CURING AND PROTECTION

A. General:

1. Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Maintain concrete with minimal moisture loss at a relatively constant temperature for the period necessary for hydration of the cement and hardening of concrete. Limit moisture loss to a maximum of 0.05 lb. /sq. ft – hr for concrete containing silica fume and 0.2 lb. /sq. ft. - hr for all other concrete before and during finishing operations.. If using an evaporation retarder, apply in accordance with manufacturer's instructions after screeding and bull floating, but before power floating and troweling.

2. Curing shall commence as soon as free water has disappeared from the concrete surface after placing and finishing. The curing period shall be 7 days for all concrete except high early strength concrete which shall be cured for 3 days minimum.

Alternatively, curing times may be reduced if either of the following provisions is complied with:

a. If tests are made of cylinders kept adjacent to the structure and

cured by the same methods, curing measures may be terminated when the average compressive strength has reached 70% of the specified 28 day compressive strength.

b. If the temperature of the concrete is maintained at a minimum of 50°F for the same length of time required for laboratory cured cylinders of the same concrete to reach 85% of the 28 day compressive strength, then curing may be terminated thereafter.

3. Curing shall be in accordance with ACI 301 procedures. Avoid rapid drying at the end of the curing period.

B. Curing Formed Surfaces: Where wooden forms are used, cure formed concrete surfaces, including undersides of beams, supported slabs and other similar surfaces by moist curing with forms in place for full curing period or until forms are removed. When forms are removed, continue curing by one or a combination of the methods specified below, as applicable.

1. Columns and shearwalls that are not exposed to view: Moist cure in forms or by one or a combination of methods 1, 2, or 3 specified below. Use a high –solids, liquid membrane-forming curing and sealing compound conforming to ASTM C 1315, type I, Class A or B for method 3.

2. Columns and shearwalls that are exposed to view: Moist cure in forms or by one or a combination of methods 1, 2 or 3 specified below. Use a high-solids, non- yellowing, liquid membrane-forming curing and sealing compound conforming to ASTM C 1315, type 1, class A for method 3.

3. Sides and Soffits of Beams and Pan-Joist Ribs, Soffits of Slabs: Moist cure in forms or by one or a combination of methods 1, 2 or 3 specified below. Use a liquid membrane-forming dissipating resin curing compound conforming to ASTM C 309, type 1, class A or B for method 3.

4. Basement Walls, Sides of Exterior Retaining Walls: Moist cure in forms or by one or a combination of methods 1, 2 or 3 specified below. Use a liquid membrane- forming dissipating resin curing compound conforming to ASTM C 309, type 1, class A or B for method 3.

C. Curing Unformed Surfaces: Cure unformed surfaces, such as slabs, floor topping and other flat surfaces by one or a combination of the methods specified below, as applicable. The Contractor shall choose a curing method that is compatible with the requirements for subsequent material usage on the concrete surface.

1. Ramps and Horizontal Surfaces of Parking Areas, Exposed Exterior

Balconies: Cure using only methods 1 or 2 as specified below.

2. Floors Directly Exposed to Vehicular or Foot Traffic not in Parking Areas and not otherwise receiving a chemical hardener or penetrating sealer finish: Apply two coats of a high-solids, water-based, non-yellowing, liquid membrane-forming curing and sealing compound conforming to ASTM C 1315, type 1, Class A in accordance with method 3 as specified below.

3. Floors in Non-Public spaces that are left exposed to view and not receiving sealers or hardeners, floors involved in under-floor air distribution systems: Apply one coat of a high-solids, water-based, non-yellowing, liquid membrane- forming curing and sealing compound conforming to ASTM C 1315, type 1, Class A or B in accordance with method 3 as specified below.

4. Floors that are to receive subsequent cementitious toppings, sealers, hardeners, ceramic tile, acrylic terrazzo, vinyl composition tile, sheet vinyl, linoleum, vinyl- backed carpet, rubber, athletic flooring, synthetic turf, wood, epoxy overlay or adhesive, or other coating or finishing products: Cure using methods 2 or 3 as specified below. Use a water-based dissipating resin type curing compound conforming to ASTM C 309, type 1, class A or B for method 3.

5. Industrial Slabs: Cure using methods 1 or 2 as specified below for 7 days. The temperature of applied water shall be with 10° F of concrete surface temperature.

6. All Other Surfaces: Cure using methods 1, 2 or 3 as specified below. Use a water-based dissipating resin type curing compound conforming to ASTM C 309, type 1, class A or B for method 3.

D. Curing Methods:

1. Method 1 - Moisture Curing: Provide moisture curing by one of the following methods:

    a. Keep concrete surface continuously wet by covering with water.
    b. Continuous water-fog spray.
    c. Covering concrete surface with specified absorptive cover, thoroughly saturating cover with water and keeping continuously wet. Place absorptive cover to provide coverage of concrete surfaces and edges, with 4" lap over adjacent absorptive covers.

2. Method 2 - Moisture-Retaining Cover Curing: Provide moisture-

retaining cover curing as follows:

Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width with sides and ends lapped at least 3" and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape. Water may be added to concrete surface to prevent drying before the cover is installed, but the surface shall not be flooded with water if a non-absorptive cover is used.

3. Method 3 – Curing or Curing and Sealing Compound: Provide curing, curing/hardener, liquid membrane-forming curing, or curing and sealing compound as follows:

Apply specified compound to concrete slabs as soon as final finishing operations are complete (within 2 hours and after surface water sheen has disappeared). Apply uniformly in continuous operation by power-spray or roller in accordance with manufacturer's directions. Do not allow to puddle. Recoat areas subjected to heavy rainfall within 3 hours after initial application. Maintain continuity of coating and repair damage during curing period. Apply second coat for sealing 2 to 3 hours after the first coat was applied.

Do not use membrane-forming curing and sealing compounds on surfaces which are to be covered with coating material applied directly to concrete, liquid floor hardener, waterproofing, dampproofing, membrane roofing, flooring (such as ceramic or quarry tile, glued-down carpet, vinyl composition tile, linoleum, sheet vinyl, rubber, athletic flooring, synthetic turf, or wood), paint or other coatings and finish materials. Dissipating resin type cures are acceptable in these locations.

3.10 HOT WEATHER CONCRETING

A. Definition:

1. Conditions warranting hot weather concreting practices are defined as any combination of high air temperature, low relative humidity and wind velocity tending to impair the quality of fresh or hardened concrete or otherwise result in abnormal properties. If conditions cause an evaporation rate of 0.2 lb. /sq. ft. /hr. as calculated by Figure 2.1.5 in ACI 305R-99, then precautions shall be taken to prevent plastic shrinkage cracks from occurring.

B. Specification: Follow hot weather concreting practices specified below when required to limit the concrete temperature at the truck discharge point to the stated maximum acceptable temperature.

C. Records: Under hot weather conditions, the Contractor shall keep records of outside air temperature, concrete temperature at truck discharge and general weather conditions.

D. Hot Weather Concreting Requirements: The following items, all or in part as required, shall be followed to limit the concrete temperature to the stated

maximum acceptable temperature and to minimize the possibility of plastic shrinkage cracks from developing.

1. Design the concrete mixes specifically for hot weather conditions replacing some cement with fly ash or other pozzolan and using a water reducing retarding admixture (ASTM C 494 Type D).

2. Use the largest size and amount of coarse aggregate compatible with the job.

3. Use sunshades and/or windbreaks.

4. Delay construction of indoor slabs-on-grade until the walls and roof are constructed.

5. Cool and shade aggregate stockpiles.

6. Use ice as part of the mixing water or cool the water with liquid nitrogen.

7. Limit the number of revolutions at mixing speed to 125 maximum.

8. Reduce time between mixing and placing as much as possible.

9. Do not add water to ready-mixed concrete at the job site unless it is part of the amount required initially for the specified water-cement ratio and the specified slump.

10. Schedule concrete placement for early morning, late afternoon, or night.

11. Have all forms, equipment and workers ready to receive and handle concrete.

12. Maintain one standby vibrator for every three vibrators used.

13. Keep all equipment and material cool by spraying with water including exteriors of forms, reinforcing steel, subgrade, chutes, conveyors, pump lines, tremies, and buggies.

14. Protect slab concrete at all stages against undue evaporation by applying a fog spray or mist above the surface or applying a monomolecular film. Where high temperatures and/or placing conditions dictate, use water-reducing retarding admixture (Type D) in lieu of the water-reducing admixture (Type A) as directed by the Owner's Testing Laboratory.

15. Provide continuous curing, preferably with water, during the first 24 hours using wet burlap, cotton mats, continuous spray mist, or by applying a curing compound meeting ASTM C 1315. Continue curing for 3 days minimum.

16. Cover reinforcing steel with water soaked burlap so that steel temperature will not exceed ambient air temperature immediately before placement of concrete.

17. As soon as possible, loosen forms and run water down the inside. When forms are removed, provide a wet cover to newly exposed surfaces.

3.11 COLD WEATHER CONCRETING

A. Definition:

1. Concrete shall not be placed when the outside air temperature is 40°F or less unless cold weather concreting practices are followed as specified below.

2. Cold weather concreting practices should also be followed whenever the average daily air temperature is expected to be less than 40°F for more than three successive days. The average daily air temperature is the average of the highest and lowest temperature occurring during the period from midnight to midnight. The requirement for adhering to these cold-weather concreting practices may be terminated when the air temperature is above 50º F for more than half of any 24 hour duration.

3. Cold-weather concreting practices invoked shall keep the temperature of the concrete immediately after placing within the following temperature ranges:

   a. 55º to 75º F for sections less than 12 in. in the least dimension
   b. 50º to 70º F for sections 12 to 36 in. in the least dimension
   c. 45º to 65º F for sections 36 to 72 in. in the least dimension
   d. 40º to 60º F for sections greater than 72 in. in the least dimension

4. Concrete Protection: Protect the concrete immediately after placing and during the defined protection period such that the concrete does not freeze nor fall below the temperature levels stated in the above paragraph. For concrete not loaded during construction the protection period shall be for a minimum of three days if cold-weather conditions persist. The time period may be reduced to a minimum of two days if Type III cement or an accelerating admixture is used or if an additional 100 pounds of cement per cubic yard is added to the concrete mix.

Concrete fully loaded during construction shall be protected during cold weather conditions for whatever time period is required to obtain the required strength as determined by nondestructive strength tests (Windsor probe, Swiss Hammer Test) on the in-place concrete. Protect concrete surfaces from freezing for the first 24 hours even if cold-weather conditions do not officially exist due to high volatility in ambient temperatures.

5. Protection Deficiency: If the temperature requirements during any portion of the protection period are not met but the concrete surface did not freeze, the protection period shall be extended until twice the deficiency expressed in degree-hours is made up. Deficiency degree-hours are defined as the average deficiency in temperature below the required value times the number of hours the deficiency persisted. Make-up degree hours are the average increase in temperature above the minimum value times the hours required to make up twice the deficiency degree-hours. Contact the Engineer if the concrete surface was allowed to freeze during the protection period.

6. Protection Removal: As the protection is being removed the decrease in temperature measured at the surface of the concrete in a 24 hour period shall not exceed the following:

    a. 50º F for sections less than 12 in. in the least dimension
    b. 40º F for sections 12 to 36 in. in the least dimension
    c. 30º F for sections 36 to 72 in. in the least dimension
    d. 20º F for sections greater than 72 in. in the least dimension

7. The maximum concrete temperature heated by artificial means at point of placement shall not exceed 90°F.

B. Records: Under cold weather conditions, the Contractor shall keep records of outside air temperature, concrete temperature as placed and general weather conditions. The temperature record shall be taken no less than 2 times per 24 hour duration.

C. Cold Weather Concreting Requirements: The following items, all or in part as required, should be followed to assure acceptable concrete in cold weather conditions:

1. Design the concrete mix to obtain high early strength by using higher cement content, a high early strength cement (Type III), or a specified non-chloride accelerator (ASTM C 494 Type C or E).

2. Protect the concrete during curing period using insulating blankets, insulated forms, enclosures and/or heaters.

3. Concrete cured in heated enclosures shall have heaters vented to prevent exposure of concrete and workmen to noxious gases.

4. Frozen subgrade shall be thawed prior to concrete placement and snow and ice shall be removed from forms.

5. Temperature of embedments in concrete must be heated to above 32° F prior to placing concrete

6. Heat the mixing water and then blend hot and cold water to obtain concrete no more than 10°F above the required temperature.

7. Heat the aggregates by circulating steam in pipes placed in the storage bins for air temperatures consistently below 32°F. When either water or aggregate is heated to over 140°F combine them in the mixer first to obtain a maximum temperature of the mixture not to exceed 140°F in order to prevent flash set of the concrete.

8. Uniformly thaw aggregates far in advance of batching to prevent moisture variations in the stockpile.

9. Cover warmed stockpiles with tarps to retain heat.

10. Place air entraining admixture in the batch after the water temperature has been reduced by mixing with cooler solid materials.

11. Use wind screens to protect concrete from rapid cooling.

12. Place vertical pump lines inside the building, if possible, for concrete being pumped.

13. Maintain artificial heat as low as possible to reduce temperature stresses during cooling.

14. Avoid water curing of concrete except for parking garage structures. Apply the required curing compound to unformed surfaces as soon as possible to prevent drying of concrete from heated enclosures.

15. Delay form stripping as long as possible to help prevent drying from heated enclosures and to reduce damage to formed surfaces caused by premature stripping.

16. Provide triple thickness of insulating materials at corners and edges vulnerable to freezing.

17. Wrap protruding reinforcing bars with insulation to avoid heat drain from the warm concrete.

18. Gradually reduce the heat at the end of the heating period to reduce likelihood of thermal shock.

3.12 MISCELLANEOUS CONCRETE ITEMS

A. Filling-In: Fill-in holes and openings left in concrete structures for passage of work by other trades, unless otherwise shown or directed, after work of other trades is in place. Mix, place and cure concrete as herein specified, to blend with in-place construction. Provide other miscellaneous concrete filling shown or required to complete work.

B. Curbs: Provide monolithic finish to interior curbs by stripping forms while concrete is still green and steel-troweling surfaces to a hard, dense finish with corners, intersections and terminations slightly rounded.

C. Equipment Bases and Foundations: Provide machine and equipment bases and foundations, as shown on drawings. Set anchor rods for machines and equipment to template at correct elevations, complying with certified diagrams or templates of manufacturer furnishing machines and equipment.

D. Grout base plates and foundations as indicated, using specified non-shrink, non-metallic grout. Use high-flow grout where high fluidity and/or increased placing time are required. This grout shall be used for all base plates larger than 10 square feet.

E. Steel Pan Stairs: Provide concrete fill for steel pan stair treads and landings and associated items. Cast-in safety inserts and accessories as shown on drawings. Screed, tamp and finish concrete surfaces as scheduled.

F. Installation of adhesive anchors using injectable epoxy or adhesive: A representative of the adhesive manufacturer shall be present for the first day that adhesive anchors are installed. After drilling the hole to the diameter and depth recommended by the manufacturer, clean the hole with a wire or nylon brush. Blow the dust out of the hole using compressed air with a nozzle that reaches to the bottom of the hole. When using adhesive from a new pack, the adhesive that is discharged from the mixing nozzle should be a uniform gray color before any adhesive is installed in the hole. Fill the hole with adhesive starting from the very bottom of the hole until the hole is about 2/3 full. Do not leave an air pocket at the bottom of the hole. Insert the anchor rod or dowel by slowly twisting it into the hole.

3.13 CONCRETE SURFACE REPAIRS

A. Definition - Defective Areas:

1. Formed Surfaces: Concrete surfaces requiring repairs shall include all

cracks in excess of 0.01" and any other defects that affect the durability or structural integrity of the concrete. Voids, including honeycombing and rock pockets, and tie holes shall be repaired as required by the specified Surface Finish.

2. Unformed Surfaces: Concrete surfaces requiring repair shall include all surface defects such as crazing, cracks in excess of 0.01" wide or cracks which penetrate to reinforcement or through the member, popouts, spalling and honeycombs.

B. Classification:

1. Structural Concrete Repair: Major defective areas in concrete members that are load carrying (such as shear walls, beams, joists and slabs), are highly stressed, and are vital to the structural integrity of the structure shall require structural repairs. Structural concrete repairs shall be made using a two-part epoxy bonder, epoxy mortar or specified polymer repair mortar. The Engineer shall determine the locations of required structural concrete repairs.

2. Cosmetic Concrete Repair: Defective areas in concrete members that are non- load carrying and minor defective areas in load carrying concrete members shall require cosmetic concrete repair when exposed to view and not covered up by architectural finishes. Cosmetic concrete repairs may be made using a polymer repair mortar and compatible bonding agent. The Engineer shall determine the locations of required cosmetic concrete repairs. Stains and other discolorations that cannot be removed by cleaning and are exposed to view will require cosmetic repair. Cosmetic concrete repair in exposed-to-view surfaces will require Engineer’s approval prior to patching operation.

3. Slab Repairs: High and low areas in concrete slabs shall be repaired by removing and replacing defective slab areas unless an alternate method, such as grinding and/or filling with self-leveling underlayment compound or repair mortar is approved by the Engineer. Repair of slab spalls and other surface defects shall be made using epoxy products as specified above and as determined by the Engineer. The high strength flowing repair mortar may be used for areas greater than 1 inch in depth.

3.14 QUALITY ASSURANCE TESTING AND INSPECTION DURING CONSTRUCTION

A. See Testing Laboratory Services section of these Specifications for concrete materials and cast-in-place concrete inspection and test requirements.

END OF SECTION

SECTION 10 73 60
SITE SHELTERS

PART 1 - GENERAL

1.01 SUMMARY

A. Each of the pre-engineered Site Shelter packages shall be shipped as a pre-cut and pre- fabricated package that shall include the structural frame members, roof panels, fasteners, and installation instructions. The structures shall be shipped knocked down for minimum shipping charges. No onsite welding will be required or shall be allowed.

B. The items covered in this Specification include the following:
   1. Custom ICON Gable Shelter

C. Section Includes:
   Under this item, the Contractor shall furnish all labor, materials, equipment and perform all operations necessary for the completion of the work as shown on the drawings. This includes all excavation, concrete footings, backfill, hardware, fittings, and accessories, in accordance with the drawings, specifications and directions of the Owner's Representative.

D. Related Sections:

   1. Section 31 22 00 – Grading
   2. Section 31 23 02 – Excavating and Fill for Utilities
   3. Section 32 13 13 – Site Concrete Work

1.02 SYSTEM DESCRIPTION

A. Site Shelters are prefabricated tubular steel structures with metal roofs coverings.

B. Design Loads: All structures shall be designed and fabricated to the 2022 California Building Code with standard load designs of 20# per S.F. minimum live load, 95mph wind load and the applicable seismic loads.

C. Design Method: per applicable building code.

1.03 REFERENCES

A. American Society of Testing of Materials (ASTM)
B. International Organization for Standardization (ISO)
C. Occupational Safety and Health Administration (OSHA)
D. American Institute of Steel Construction (AISC)
E. American Iron and Steel Institute (AISI)
F. American Welding Society (AWS)

1.04 SUBMITTALS

A. Manufacturer's data and installation procedures shall be submitted as per Division 1.

B. The structure manufacturer shall submit structural calculations after award of bid, sealed by a registered engineer in the State of California in which the structure is to be erected for review and approval by the approving agency.

C. Provide proof that the manufacturer has a minimum of 30 years of experience in the exclusive fabrication of tubular steel shade structures and shall submit written evidence of such. In addition, Shade structure fabrication shall be the manufacturers primary business and shall be manufactured in the manufacturers own facility under his direct supervision. Manufacturer shall have fabricated similar structures to that which is specified. Manufacturing facility shall be an OSHA approved facility and shall be actively practicing ISO 9001 quality control standards. All non-specified manufacturers shall submit complete shop drawings indicating type, size & gauge of material used, with detailed connections, to the specifying agency for review and written pre-approval of the manufacturer prior to the submittal of the shop drawings. All product substitutions bid or submitted without prior approval will be rejected.

D. Color Selection: Supply manufacturer's standard color selection for roof materials, structural members.

E. Warranty: Supply manufacturer’s standard ten-year warranty. Contractor to provide a copy of all warranties that apply to the Owner’s Representative.

1.05 QUALITY ASSURANCE:

A. Provide evidence of commitment of quality craftsmanship as demonstrated by the following:

1. It shall be the obligation of the Contractor to insure that all criteria are satisfied and the burden of proof of conformance shall rest with the contractor. The Owner’s Representative shall be the sole judge of conformance and the Contractor is cautioned that he will be required to Bid and provide a finished product meeting all stated criteria. It is recommended that the contractor or project manager follow an inspection and approval process, as provided by manufacturer.

B. Manufacturer's Qualifications:

1. The product shall be designed and produced at a facility owned and directly supervised by the supplier.
2. The product shall be shipped from a single source.
3. The supplier shall have been making steel frame pre-manufactured shelters for a minimum of 30 years.
4. Utilizing a licensed engineer.
5. Full time on-staff quality control manager.
6. Published quality assurance manual.
7. Utilizing AWS certified welding inspectors.
8. Manufacturer shall have their own on-site power coating facility and do all steel preparation and power coating of the shade structure frame in their own facility.

C. All steel members shall be designed according to the “American Institute of Steel Construction (AISC) specifications and the American Iron and Steel Institute (AISI) specifications for cold-formed members.

D. All fabrication welds shall be in strict accordance with the structural welding code of the American Welding Society (AWS) specifications. All structural welds shall be in compliance with the requirements of “Pre-qualified” welded joints. All welding shall conform to ASTM A-233 series E-70XX electrodes - low hydrogen. Field welding shall not be required or permitted.

E. Shipping Protection:

1. Protect prefinished metal from abrasion during shipping.
2. Remove the packaging wrap upon receipt of order.

F. Product Delivery:

1. Deliver materials to job site in an undamaged condition. Unload materials with necessary equipment (no hand unloading), store covered out of weather, and keep out of direct sun. Inspect parts within 48 hours of delivery, compare with manufacturer’s bill of material, and report any missing or non-conforming parts to manufacturer within this time.

2. Inspect all items for abraded surfaces and other unacceptable deliver conditions. Return damaged or non-conforming items to manufacturer for replacement.

1.06 WARRANTY

A. Supply manufacturer’s standard (10) ten-year warranty. Contractor to provide copy of all warranties that apply to the Owner’s Representative. Manufacturer shall warrant the structure to be free from defects in material and workmanship for a period of (10) ten years from date of invoice. Warranty does not include damage from others, including vandalism, fire, or acts of God, corrosion caused by moisture, chemicals, air, or salt spray, pollution, or infestation by rodents or other vermin. Manufacturer shall repair or replace structure components of like kind at his option, to match existing material and workmanship. Submit warranty prior to project completion. Product Installer does not need to be certified or approved by the manufacturer in order for the warranty to be effective.

B. Pre-finished steel roofing to be warranted by the roofing manufacturer as a separate job specific warranty. Painted galvalume coated metal is warranted for 50 years, while Kynar 500 pre-finish coat is warranted for 30 years .

C. Columns and frames shall have a factory applied powder coat finish which shall be protected against damage during shipping and installation. Touch up paint shall be provided to be applied by the installer for minor blemishes only. Powder coat paint shall be provisionally warranted for ten (10) years after acceptance from owner against peeling, flaking, and rusting. Warranty does not cover damage caused from shipping, erection of structure, lack of touchup and maintenance, overspray from lawn sprinklers or vandalism.

PART 2 - PRODUCTS

2.01 PREFABRICATED STEEL GABLE SHELTER STRUCTURES

A. The prefabricated steel shelter structures shall be manufactured by “ICON Shelter Systems” 1455 Lincoln Avenue, Holland, MI 49423. Pricing is available from Park Planet, Red Bluff, CA 96080, Phone 530-244-6116 The following model shall be provided:

1. 2 each, Custom ICON model, 40’ x 30’ rectangular shelter as shown on the plans. 4:12 roof pitch, 8'-4 1/2” eave height, 24 ga. Trim fascia, 6 columns, surface mounted, TGIC poly powder coat, with zinc rich primer. All roofing shall be McElroy Metal , Inc. 24 gauge Zincalume / Galvalume coated steel panels. “Multi-Rib” panels, shall be 36” wide with 1 3/16” high ribs @12” o.c. All roofing shall be pre-finished with PVF2 (Polyvinylidene Fluoride) Kynar 500. All roof panels shall be pre-cut with ribs running with the slope of the roof. Fascia trim shall be 24 gauge Zincalume / Galvalume coated and pre-finished to match the roof color. Screws & rivets shall match roof color. No exceptions will be allowed. All frame members shall be one piece structural steel tube with a minimum .188 (3/16”) wall thickness, sized according to engineering. All frame members shall be bolted together with bolts totally concealed. Compression rings shall be fabricated from structural steel tube or flat plate steel and shall have all connections concealed from view. All tubing for frame members shall be ASTM 500 grade B/C. Beam end plates shall be ASTM A36 fy=36,000 psi UNO. Bolts shall be 5/8” x 2” unless noted otherwise. “I” beams, Angle iron, “C”, “Z” or “S” purlins or beams, open or closed, shall not be allowed.

2.02 DESIGN CRITERIA:

A. All structures shall be designed and fabricated to the CBC 2022 (Latest Edition) with standard load designs of 20# per S.F. minimum live load, 95mph wind load and the applicable seismic loads.

2.03 STEEL MEMBERS:

A. All members shall be designed according to the “American Institute of Steel Construction (AISC) specifications and the American Iron and Steel Institute (AISA) specifications for cold-formed members.

2.04 WELDING:

A. All fabrication welds shall be in strict accordance with the structural welding code of the American Welding Society (AWS) specifications. All structural welds shall be in compliance with the requirements of “Pre-qualified” welded joints. All welding shall conform to ASTM A-233 series E-70XX electrodes - low hydrogen. Field welding shall not be required or permitted.

2.05 FRAME MEMBERS AND COMPRESSION RING:

A. All frame members shall be one piece hollow steel shape (HSS) tube, sized according to engineering. All frame members shall be bolted together with bolts totally

concealed. Compression rings shall be fabricated from hollow steel shape tube, or flat plate steel and shall have all connections concealed from view. All tubing for frame members shall be ASTM 500 grade B/C. Beam end plates shall be ASTM A36 fy=36,000 psi UNO. Bolts shall be 5/8" x 2" unless noted otherwise in the structural engineering calculations. Main roof beam extensions at each corner shall be miter cut at 45 degrees. Capped with a 16 gage plate welded and ground smooth on all edges. All Mid-beams/purlins shall have no exposed "tek" screws. Mid-beams shall be graduated in size as required by engineering. Columns shall be cluster columns per the plan. "I" beams, Angle iron, "C", "Z" or "S" purlins or beams, open or closed, shall not be allowed.

2.06 ROOFING AND TRIM:

A. All "ICON" model roofing shall be McElroy Metal 24 gauge Zincalume / Galvalume coated steel panels. "Multi-Rib" panels, shall be 36" wide with 1 3/16" high ribs @12" o.c. All roofing shall be pre-finished with PVF2 (Polyvinylidene Fluoride) Kynar 500. All roof panels shall be pre-cut with ribs running with the slope of the roof. Fascia trim shall be 24 gauge Zincalume / Galvalume coated and pre-finished to match the roof color. Screws & rivets shall match roof color. No exceptions will be allowed.

2.07 POWDER COATING:

A. All frame members shall be media blasted to a white finish removing all rust, scale, oil and grease. Powder coating for all frame members shall be provisionally warranted for (5) five years with TRUZINC 7520-70138 primer with a Dry Film Thickness of (2.0 - 6.0 mils) & hardness of 2H-3H with a Salt Spray Resistance of 6000 hours and Super Durable Gloss Polyester 9000 series finish paint (2.5-3.5 mils) with a hardness of H-H2 & has 1000 hour salt spray resistance. Total of primer & finish paint shall be 4.5-9.5 mils of paint. Finish shall be a smooth uniform surface with no pits, runs or sags. All bent plate which accepts the roof screws shall be powder coated on both sides to prevent rusting. All powder coating shall be performed by the structure manufacturer in his own facility under his direct supervision. Out-sourcing of powder coating shall not be allowed.

2.08 FOOTINGS & COLUMNS:

A. No soil report is available. The Contractor shall design footings according to allowable bearing capacity from the California Building Code, latest edition (Sample footing drawings shall be made available to the contractor or owner from the manufacturer). Anchor bolts for surface mounted structures shall be supplied by the contractor. Columns shall be ASTM 500 grade B. Concrete footing rebar (if required) shall be ASTM A-615 grade 40 #4 bars & smaller, grade 60 #5 bars & larger. Concrete shall be 6 sack mix "Portland" cement. Maximum slump shall not exceed 4". Compressive strength: 3500 psi @ 28 days.

PART 3 - EXECUTION

3.01 GENERAL:

A. Install according to manufacturer's plans installation instructions and these specifications.

B. When unloading, use precautions to protect finished materials. (Do not use chains or buckets to move materials.) Field-handle carefully to avoid scratching.

3.02 FOOTINGS & CONCRETE SLAB:

A. No soil report is available. The Contractor shall design footings according to allowable bearing capacity from the California Building Code, latest edition (Sample footing drawings shall be made available to the contractor or owner from the manufacturer). Anchor bolts shall be supplied by the contractor. Concrete footing rebar shall be ASTM A-615 grade 40 #4 bars & smaller, grade 60 #5 bars & larger. Concrete shall be a 6 sack mix “Portland” cement. Maximum slump shall not exceed 4”. Compressive strength shall be a minimum of 3500 psi @ 28 days.

3.03 ERECTION:

A. Manufacturer shall supply complete layout and detail plans with installation instructions for the structure prior to installation. The structure shall be erected in a work-man-like manner with framing, roofing and trim installed according to the manufacturers’ installation instructions. Care shall be taken to avoid damaging the structure during installation.

END OF SECTION

SECTION 12 93 00
SITE ELEMENTS

PART 1- GENERAL

1.1 SCOPE

A. Furnish and install all site elements as shown on the drawings and as specified herein including but not limited to the following:

1. Picnic Pavilion (Gable Shelter)
2. Prefabricated Restroom
3. Concrete Picnic Tables
4. Concrete Service Table
5. Concrete Park Benches
6. Group Fire Pit
7. Campsite Fire Rings
8. Concrete Group Barbeque
9. Solar Lighted Bollards
10. Wall Mounted LED Sconce Lights
11. Playground Structures
12. Two-Post Timber Single Kiosk
13. Basketball Hoops
14. Volleyball Systems

1.2 GENERAL REQUIREMENTS

A. This work shall be coordinated with all associated work that will insure that all items are located properly per drawings, complete in the proper sequence, and accomplished efficiently so that no work will be delayed because of associated items or parts of items.

B. If more than one subcontractor is to perform various items or parts of items detailed by this section, specific responsibility shall be defined by the General Contractor.

E. Contractor to apply sacrificial graffiti coating to new furnishings.

F. **Site Furnishing Schedule of items below is NOT inclusive of all site elements to be installed.** The schedule is intended to provide assistance in quantities and contact information for select custom furnishings.

1.3 SHOP DRAWINGS SUBMITTALS

A. Section 01000 – General Requirements and Submittal List

1. Product Data: Product Data: Indicate materials, construction, configuration, dimensions, and finishes.
2. Assurance/Control Submittals:
   Certificates: Manufacturer's certificate that Products meet or exceed specified requirements.

1.4 DELIVERY, STORAGE AND HANDLING

A. Section 01600 – Product Requirements: Transport, handle, store and protect Products

PART 2- PRODUCTS

2.1 SITE ELEMENTS SCHEDULE

A. See plans for installation details. Furnish these materials or approved equal.

DESCRIPTION/MANUFACTURER
PICNIC PAVILION: by ICON Shelter Systems. Available through Park Planet, (530) 244-6116, contact: Kasanna Coulter. Refer to Section 10 73 60, Site Shelters. ● Model: Rectangular Gable Shelter, 30’ x 40’ x 8.5’ ● Column Color: To match existing shelters ● Fascia Color: To match existing shelters ● Metal Roof Color: To match existing shelters ● Contractor to provide structural calculations per local building codes and color scheme before ordering and installing the structure.
PREFABRICATED RESTROOM: by CXT Precast Products, contact: Kurt Mee, (303) 552-1843. Refer to Section 13 00 00, Prefabricated Restroom. • Model: Santiago Building Number S-301 • Exterior Wall: Split Face Block • Roof: Cedar Shake • Color: To match existing restrooms
Concrete Picnic Table: by Outdoor Creations Inc., contact: Chad Smith, (530) 365-6106, Model No. 100S. Color: County of Fresno to approve colors prior to ordering.
Concrete Service Table: by Outdoor Creations Inc., contact: Chad Smith, (530)365-6106, Model No. 102. Color: County of Fresno to approve colors prior to ordering.
72” Contour Bench: by Outdoor Creations Inc., contact: Chad Smith, (530) 365-6106, Model No. 407. Color: County of Fresno to approve colors prior to ordering.
Bench with 203” Radius Curve: by Outdoor Creations Inc., contact: Chad Smith, (530)365-6106, Model No. 404R203. Color: County of Fresno to approve colors prior to ordering.
Group Fire Pit: by Outdoor Creations Inc., contact: Chad Smith, (530) 365-6106, Model No. 304. Color: County of Fresno to approve colors prior to ordering.
HC Single Wall, Single Flange Fire Ring: available through Jamestown Advanced Products, (800) 452-0639, contact: Chris Simon, Model No. 11302-SP-23. Color: Black Powder Coat.
Concrete Group Barbeque, Outdoor Creations Inc., contact: Chad Smith, (530) 365-6106, Model No. 3001AG, Color: County of Fresno to approve colors prior to ordering.
Group Cornhole Gameboards: by Outdoor Creations Inc., contact: Chad Smith, (530) 365-6106, Model No. 1510. Color: County of Fresno to approve colors prior to ordering.

LED Solar Lighted Bollards: by First Light Technologies, PLB 100 Series, (778) 405-0312, contact: Kees Schaddelee. Model and quantity per plans. Contractor to submit for approval before ordering and installing.
LED Wall Sconce: by RAB. Available through Independent Electric Model No. WBLED18Y, (510) 877-9850, Quantity per plans. Contractor to submit for approval before ordering and installing. Color: To match existing lights.
Playground Structures: By Columbia Cascade. Available through Park Pacific Inc., (888) 460-7275, contact: Josh Jurgensen. ● Four TimberCraft Full-Round Steppers (Model No. 1501-3) ● One Embankment Slide Chute (Model No. C-1650-71-EMB) ○ County of Fresno to approve material colors prior to ordering. ● One Log Scramble (Model No. 4500-304) ● One Log Scramble (Model No. 4500-305) ● One Play Stack (Model No. 4500-008) ● Contractor to provide structural calculations per local building codes and color scheme before ordering and constructing the structure.
Two-Post Timber Single Kiosk: By Romtec, Contact: Loren Culberhouse, (541) 496-3541. Model No. 3105. Color: County of Fresno to approve colors prior to ordering.
Basketball Hoop, By MegaSlam Hoops, (877) 321-6342, Model No. FX72
Volleyball System: By Sports Imports, contact: Bryan Matthews, (877) 811-1284, ● Beach2 Pulley Wheel Pole with HDNR-B (Model No. B2-PWP) ● Beach2 Static Hook Collar Pole (Model No. B2-HP) ● SVN-32 Beach Volleyball Net with a Kevlar Bottom Rope (Model No. SVN-32K) ● Beach Net Antenna (Model No. PRNA) ● 2” Beach Court Boundary Line Markers (Model No. CBM2) ● Beach Pole Padding Wraparound Style (Model No. BP1) ● Contractor to submit color scheme for approval before ordering and installing. ● County of Fresno to approve colors prior to ordering of system. Refer to Section 31 23 04 for Sand Specifications

PART 3 – EXECUTION

3.01 GENERAL

A. Assembly, construction, and installation of all items shall be of the highest craftsmanship and in accordance with manufacturer's recommendations and details on the drawings. All construction shall be accurately fitted, set plumb and level, free from surface blemishes.

B. Contractor shall review the manufacturer's shop drawings and complete any additional shop drawings necessary for approval prior to installation.

C. Verify that field measurements, surfaces, substrates and conditions are as required, and ready to receive Work.

3.02 PICNIC PAVILIONS

A. Contractor shall install Picnic Pavilion as shown on the drawings.

B. Contractor shall review the manufacturer's shop drawings and complete any additional shop

drawings necessary for approval prior to installation.

C. Refer to Section 10 73 60, Site Shelters.

3.03 CONCRETE PICNIC TABLES

A. Picnic Table shall be installed per manufacturer’s specifications.

B. Contractor shall review the manufacturer's shop drawings and complete any additional shop drawings necessary for approval prior to installation.

C. Refer to Section 12 93 43, Site Furnishings.

3.04 CONCRETE SERVICE TABLE

A. Service Table shall be installed per manufacturer’s specifications.

B. Contractor shall review the manufacturer's shop drawings and complete any additional shop drawings necessary for approval prior to installation.

C. Refer to Section 12 93 43, Site Furnishings.

3.05 72” CONTOUR BENCHES

A. Bench shall be installed per manufacturer’s specifications.

B. Contractor shall review the manufacturer's shop drawings and complete any additional shop drawings necessary for approval prior to installation.

C. Refer to Section 12 93 43, Site Furnishings.

3.06 BENCHES WITH 203” RADIUS CURVE

A. Bench shall be installed per manufacturer’s specifications.

B. Contractor shall review the manufacturer's shop drawings and complete any additional shop drawings necessary for approval prior to installation.

C. Refer to Section 12 93 43, Site Furnishings

3.07 GROUP FIRE PIT

A. Fire pit shall be installed per manufacturer’s specifications

B. Contractor shall review the manufacturer's shop drawings and complete any additional shop drawings necessary for approval prior to installation.

C. Contractor shall protect Fire Pit from damage during the construction period until approved and accepted. Any damage occurring shall be the contractor’s responsibility and shall be repaired or replaced as directed by the Engineer. Refer to Section 12 93 43, Site Furnishings.

3.08 CAMPSITE FIRE RINGS

A. Fire ring shall be installed per manufacturer’s specifications

B. Contractor shall review the manufacturer's shop drawings and complete any additional shop drawings necessary for approval prior to installation.

C. Contractor shall protect Fire Rings from discoloration and damage during the construction period until approved and accepted. Any damage occurring shall be the contractor’s

responsibility and shall be repaired or replaced as directed by the Engineer. Refer to Section 12 93 43, Site Furnishings.

3.09 CONCRETE GROUP BARBEQUE

A. Barbeque shall be installed per manufacturer's specifications.

B. Contractor shall review the manufacturer's shop drawings and complete any additional shop drawings necessary for approval prior to installation.

C. Contractor shall protect Barbeque from discoloration and damage during the construction period until approved and accepted. Any damage occurring shall be the contractor's responsibility and shall be repaired or replaced as directed by the Engineer. Refer to Section 12 93 43, Site Furnishings.

3.10 CONCRETE CORNHOLE GAMEBOARDS

A. Gameboards shall be installed per manufacturer's specifications.

B. Contractor shall review the manufacturer's shop drawings and complete any additional shop drawings necessary for approval prior to installation.

C. Refer to Section 12 93 43, Site Furnishings.

10.10 LUMINAIRES

A. Contractor shall install Luminaires as shown on the drawings.

B. Contractor shall review the manufacturer's shop drawings and complete any additional shop drawings necessary for approval prior to installation.

C. Contractor shall protect Luminaires from discoloration and damage during the construction period until approved and accepted. Any damage occurring shall be the contractor's responsibility and shall be repaired or replaced as directed by the Engineer.

D. Refer to Electrical Specifications

11.11 SOLAR LIGHTED BOLLARDS

A. Contractor shall install Solar Lighted Bollards as shown on the drawings and manufacturer's recommendations.

B. Contractor shall review studio shop drawings and complete any additional shop drawings.

C. Contractor shall protect Solar Lighted Bollards from discoloration and damage during the construction period until approved and accepted. Any damage occurring shall be the contractor's responsibility and shall be repaired or replaced as directed by the Engineer.

12.12 PLAYGROUND STRUCTURES

A. Contractor shall install Play Structures as shown on the drawings and Manufacturer's recommendations.

B. Contractor shall review studio shop drawings and complete any additional shop drawings.

C. Contractor to submit structural calculations to the Agency's Department of Public Works and Planning for approval before any installation begins.

D. Contractor shall protect Structures from discoloration and damage during the construction

period until approved and accepted. Any damage occurring shall be the contractor's responsibility and shall be repaired or replaced as directed by the Engineer.

13.13 TWO-POST TIMBER SINGLE KIOSK

A. Contractor shall install Kiosk as shown on the drawings and manufacturer's recommendations.

B. Contractor shall review studio shop drawings and complete any additional shop drawings.

C. Alternatively, the Contractor may elect to construct the kiosk(s) him/herself utilizing the specified materials on the Plans and these specifications.

D. Contractor to submit structural calculations to the Agency's Department of Public Works for approval before any installation begins.

E. Contractor shall protect Kiosk from discoloration and damage during the construction period until approved and accepted. Any damage occurring shall be the contractor's responsibility and shall be repaired or replaced as directed by the Engineer.

14.14 BASKETBALL HOOPS

A. Contractor shall install Basketball Hoops as shown on the drawings and manufacturer's recommendations.

B. Contractor shall review studio shop drawings and complete any additional shop drawings.

C. Contractor shall protect Basketball Hoops from discoloration and damage during the construction period until approved and accepted. Any damage occurring shall be the contractor's responsibility and shall be repaired or replaced as directed by the Engineer.

15.15 VOLLEYBALL SYSTEMS

A. Contractor shall install Volleyball Systems as shown on the drawings and manufacturer's recommendations.

B. Contractor shall review studio shop drawings and complete any additional shop drawings.

C. Contractor shall protect Volleyball Systems from discoloration and damage during the construction period until approved and accepted. Any damage occurring shall be the contractor's responsibility and shall be repaired or replaced as directed by the Engineer.

END OF SECTION

SECTION 12 93 43
SITE FURNISHINGS

PART 1 – GENERAL

1.1 SUMMARY

A. This section includes the following:
   1. Tables (Outdoor Creations Inc.)
   2. Benches (Outdoor Creations Inc.)
   3. Bench with 203” Radius Curve (Outdoor Creations Inc.)
   4. Service Tables (Outdoor Creations Inc.)
   5. Group Fire Pit (Outdoor Creations Inc.)
   6. ADA Campsite Fire Rings (Jamestown Advanced Products)
   7. Concrete Group Barbeque (Outdoor Creations Inc.)
   8. Concrete Cornhole Gameboards (Outdoor Creations Inc.)

1.2 QUALITY ASSURANCE

A. Installer Qualification: An experienced installer who has completed installation of site furnishings and whose work has resulted in construction with a record of successful in- service performance.

B. Manufacturer Qualifications: Experienced site furniture manufacturer.

1.3 SUBMITTALS

A. Product Data: Include physical characteristics such as shape, dimensions and finish for each furnishing.

B. Shop Drawings: Provide installation details for each product.

C. Samples for Verification: For all products, show the color of the powder coat finish.

D. Maintenance Data: For each product.

   1. Provide recommended methods for repairing damage and abrasions to the powder coat finish.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Store products in original undamaged packaging in a dry location until ready for installation.

B. Handle powder coated products carefully to prevent any damage to the finish.

1.5 WARRANTY

A. All products to be warrantied against defect in materials and/or workmanship and in accordance. Additional warrants as follows:

   1. Limited ten-year warranty against destructive vandalism of concrete picnic tables. It is further warranted that product shall be free of workmanship and

material defects for a period of one year after date of invoice.

2. Limited five-year warranty against defects in materials and workmanship under normal use.
3. Limited one-year warranty on any item not specifically discussed above.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. Provide products from a singular manufacturer,
such as: Outdoor Creations Inc.
2270 Barney Rd.
Anderson, CA 96007
Phone: 530-365-6106
Fax: 530-365-5129
Website:
www.outdoorcreations.com
Contact: Chad Smith

B. Provide products from a singular manufacturer,
such as: Jamestown Advanced Products.
2855 Girts Rd, Jamestown, NY, 14701
Jamestown, NY 14701
Phone: 800-452-0639
Fax: 716-483-5398
Website:
www.jamestownadvanced.com
Contact: Chris Simon

2.2 TABLES - Outdoor Creations Inc (Model No. 100S)

A. Materials:

1. Supports, Seat Assembly, and Table Top:
   a) Supports, seat assembly, and table top are all concrete with minimum compressive strength of 5000 psi. Product is cast in one-piece with no assembly required

B. Dimensions: (See plans)

1. 92” long x 65” wide x 32” high

C. Finish:

1. Smooth, Standard Acrylic Sealer

2.3 SERVICE TABLE - Outdoor Creations Inc. (Model No. 102)

A. Materials:

1. Supports and Table Top:
    a) Supports and table top are all concrete with minimum compressive strength of 5000 psi. Product is cast in one-piece with no assembly required
2. Anchoring:
    a) Table has cast in threaded inserts in bottom of each leg for mounting.
    b) Two 3/4” x 8” coilrods are provided for mounting.
    c) Table must be mechanically attached
    d) Table requires epoxy applied to cover bottom of entire leg.

B. Dimensions: (See Plans)
1. Overall: 96” long x 36” wide x 31” high

C. Finish:
1. Smooth, Standard Acrylic Sealer

2.4 BENCHES - Outdoor Creations Inc. (Model No. 407)

A. Materials:
1. Supports and Seat Assembly, :
    a) Supports and seat assembly are all concrete with minimum compressive strength of 5000 psi. Product is cast in one-piece with no assembly required
2. Anchoring:
    a) Bench has cast in threaded inserts in bottom of each leg for mounting.
    b) Two 3/4” x 8” coilrods are provided for mounting
    c) Bench must be mechanically attached
    d) Bench requires epoxy applied to cover bottom of entire leg.

B. Dimensions: (See plans)
1. Overall: 72” long x 24” wide x 37 1/2” high

C. Finish:
1. Smooth, Standard Acrylic Sealer

2.5 CURVED BENCHES - Outdoor Creations Inc. (Model No. 404R203)

A. Materials:
1. Supports and Seat Assembly, :
    a) Supports and seat assembly are all concrete with minimum compressive strength of 5000 psi. Product is cast in one-piece with no assembly required.
2. Anchoring:
    a) Bench has cast in threaded inserts in bottom of each leg for mounting.
    b) Two 3/4” x 8” coilrods are provided for mounting
    c) Bench must be mechanically attached
    d) Bench requires epoxy applied to cover bottom of entire leg.

B. Dimensions:

1. Overall: 83 1/2” long x 14” wide x 18” high

C. Finish:

1. Smooth, Standard Acrylic Sealer

2.6 GROUP FIRE PIT - Outdoor Creations Inc. (Model No. 304)

A. Materials:

1. Fire Ring
   a) Fire ring is all concrete with minimum compressive strength of 5000 psi. Product is cast in one-piece with no assembly required.
2. Fire Shield
   a) Internal fire shield shall be manufactured from 3/16” steel plates

B. Dimensions: (See Plans)

1. Fire Pit
   a) Overall: 48” diameter x 18” high

C. Finish:

1. Smooth, Standard Acrylic Sealer

2.7 ADA FIRE RINGS - Jamestown Advanced Products (Model No. 11302-SP232)

A. Materials

1. Fire Ring
   a) Constructed with formed (not welded) 1” flange
2. Grate
   a) Constructed from 1/2” diameter, A36 steel bars at 1 1/8” centers
   b) Handle is constructed from 5/8” diameter, A36 steel bar with stay cool spring grips
3. Anchoring
   a) 1/2” diameter staple placed in 12” diameter concrete footing

B. Dimensions: (See Plans)

1. Fire Ring
   a) Overall: 31 5/8” diameter x 23” high
2. Grate Handle
   a) Overall: 38” wide x 23 5/8” high

C. Finish

1. Black powder coat

2.8 CONCRETE GROUP BARBEQUE - Outdoor Creations Inc. (Model No. 3001AG)

A. Materials:

1. Concrete Barbeque
   a) Barbeque is all concrete with minimum compressive strength of 5000 psi. Product is cast in one-piece with no assembly required.
2. Grill
   a) One-piece 3/8” laser cut steel

B. Dimensions: (See Plans)

1. Concrete Barbeque
   a) Overall: 70” long x 34” wide x 34” high
2. Grill
   a) Overall: 58 1/2” long x 22 1/2” wide x 2” high
3. Crank Mechanism
   a) Overall: 58 1/2” long x 35” High

C. Finish:

1. Smooth, Standard Acrylic Sealer

2.9 CONCRETE CORNHOLE GAMEBOARD: Outdoor Creations Inc. (Model No. 1510)

A. Materials:

1. Gameboard
   a) Gameboards are all concrete with minimum compressive strength of 5000 psi. Product is cast in one-piece with no assembly required.

B. Dimensions: (See Plans)

1. Concrete Gameboard
   a) Overall: 54” long x 36” wide x 12” high

C. Finish:

1. Smooth, Standard Acrylic Sealer

3.1 INSTALLATION

A. Handle and install furnishings according to manufacturer’s recommendations and installation instructions.

B. Some assembly may be required.

END OF SECTION

SECTION 13 00 00
PREFABRICATED RESTROOM

A. Furnish and install prefabricated concrete block or concrete wall public restroom as indicated by the provided plans and elevations (CXT Model# S-301 “Santiago” or approved equal). Prefabricated facilities shall be provided with all required approvals from the State of California and all applicable permits required by the Agency’s Department of Public Works and Planning.

B. Prefabricated building design/build supplier may adjust the size of the facility for all required ADA clearances and all applicable code requirements. The restroom shall be a minimum of 26’-0” wide by 20’-0” including a covered entry.

C. Prefabricated design/build supplier must comply with all State of California, Department of Housing and Community Development prefabricated “Commercial Modular” requirements as follows:

1. The design/build supplier must be licensed by the State of California, Department of Housing as a manufacturer for the last five years, to verify experience.
2. Submit a copy of all current licenses for verification with restroom submittal.
3. The selling dealer must be a California licensed dealer and present their license for verification with restroom submittal.

D. A complete scope of supply and design submittals must be provided to Agency’s Plan Check for approval before fabrication and commencement of work, including:

1. Preliminary Plan Set
2. Building Shop Drawings
3. Building Foundation Plan
4. Structural Calculations
5. Product Data Sheets
6. Scope of Supply
7. Warranty information

E. All plans and calculations shall be wet stamped and signed by registered Professional Engineer in the State of California.

F. All equal items indicated shall be approved by the Agency’s Project Manager. Provide a minimum of 6 sets for approval. Provide justification indicating and a substitution of the submitted item is of equal or better in performance, quality and durability. The Agency reserves the right to reject any substitutions. All required local building permits and fees shall be by General Contractor.

1.2 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

B. Related Sections:

1. Section 31 22 00, Grading: Grading of site.

2. Section 31 23 02, Excavate and Fill for Structures: Excavation for utilities.
3. Section 31 23 04, Excavate and Fill for Structures: Excavation for footings.
4. Section 32 13 13, Site Concrete Work: All concrete, forms and reinforcing steel shall be furnished by contractor.
5. Section 33 30 00, Septic Sewage System
6. Sections 26 00 00, Electrical General Requirements and 26 05 00 Electrical Service and Distribution

1.3 QUALITY CONTROL

A. All design must comply with current Agency codes and regulations. All restroom design must comply with Department of Public Works and Planning, Resources and Parks Division Standards.

B. All steel or metal components shall be galvanized and non-corrosive or have corrosion inhibiting paint and primer applied. All concrete reinforcing bars will conform with ASTM A615. All welded wire fabric will conform with ASTM A185. The restroom facility shall be designed to be vandal resistant with a typical 50-year useful life expectancy. The restroom facility shall also be designed for ease of maintenance.

C. All color selection shall be approved by the Agency's Project Manager and the Engineer. Submit color samples for approval. Provide interior and exterior elevations indicating required color to be selected.

D. Shipping Protection:

1. The building, while traveling over roads to the destination may encounter inclement weather or road grime that could require substantial cleaning when it arrives on site.
2. The building shall be shrink-wrapped before transportation and sufficiently strong to arrive at the owner site intact for exterior finish protection.
3. Materials removed on site shall be disposed of and recycled by restroom building install staff.

E. All equal items indicated shall be approved by the Project Manager. Provide a minimum of 6 sets for approval. Provide justification indicating and a substitution of the submitted item is of equal or better in performance, quality and durability. The Agency reserves the right to reject any substitutions. All required local building permits and fees shall be by General Contractor.

1.4 CLARIFICATION OF PREFABRICATED BUILDINGS AND SITE INSTALLATION

A. This portion of the bid specifications does not follow the CSI standard format as the prefabricated structure in this bid is an *off-site constructed "product"* and not "typical" general construction.

B. The *installation of the product on-site is general construction* which must be coordinated between the Owner or their General Contractor and the Supplier. Specifications for the building foundation/pad shall be provided herein by the specified design/build Supplier. Due to the responsibility of the specified building supplier for architecture, engineering and a one-year warranty, the site

pad/foundation must meet the suppliers design so the pad and building can be considered from a single source for warranty purposes. The Supplier must accept the pad and compactions tests before they take responsibility for the entire system under their warranty.

1.5 ARCHITECTURAL DESIGN/ENGINEERING AND INSURANCE RESPONSIBILITY

A. While the Agency has provided bid specifications and a design for the building, the building design/build supplier remains legally responsible for architecture, engineering, and all applicable building, safety, health, fire, and accessibility code compliance. Since they hold professional design responsibility to the Owner, the building supplier must furnish certification that they provide product liability insurance in the amounts required by the general specifications *to cover property damage and personal injury*.

1. Final drawings shall be stamped by a California engineer and California Department of Housing and Community Development, suitable for local permitting.

B. Errors and Omissions Insurance:

1. The building design/build supplier must also provide an additional Professional Architectural and Engineering Errors and Omissions insurance, in the minimum amount of $2,000,000, *to cover claims against the owner or their general contractor for State and Federal ADA handicapped accessibility and other design/engineering code issues*. This Errors and Omission Policy must remain in effect for 5 years from the completion and owner acceptance of the project. Products liability insurance (since it does not cover professional design responsibility only) will be insufficient for this bid and will be cause for rejection of the product.

C. Insurance for the Building offsite, while in transit, and/or on site until turn over and final owner acceptance.

1. The Supplier may request invoicing for a percentage of building completion in-plant, monthly. Under UCC law, this means that the Supplier is turning over responsibility for the portion invoiced to the Owner, yet the building will not be on the Owner's property and may not be covered by the Owner's insurance. Therefore, the Building Supplier must maintain a special insurance policy with a $1,000,000 coverage limit that protects the Owner and General Contractor's custom ordered materials to be used in the fabrication of the building during this period. This policy covers the building materials from supplier to manufacturer, while it is being built off-site, while in transit to the job site, during and after it is installed on-site until final acceptance by owner.

1.6 OWNER OR GENERAL CONTRACTOR COORDINATION WITH DESIGN/BUILD SUPPLIER

A. The specified prefabricated public restroom building requires coordination between the Owner or their General Contractor (who prepares the site pad and delivery access for the prefabricated storage building) and the prefabricated restroom building Supplier (who completes the architectural design, engineering, off-site building construction, delivery and installation on site.) The specified prefabricated restroom

building specifications include unique components/systems which are custom to the restroom building supplier. Since the restroom Supplier is responsible for design, additional insurance requirements for errors and omissions are required.

1.7 OWNER OR GENERAL CONTRACTOR GENERAL SCOPE OF WORK:

A. The General Contractor for this project is responsible for the site survey and staking of the building location, finished slab survey elevations and marking on site, construction and compaction of the required building pad; access to the site for a large crane and tractor trailers delivering the prefabricated building; providing water, sewer, and power at a point of connection (POC) within 6 feet of the building and at the depth required by the building subcontractor and local code; and the installation of any sidewalks outside the building footprint.

1. The General Contractor is responsible for verification to the building subcontractor design/build firm that there are no unanticipated site delivery issues such as overhead wires, trees, tree roots, or existing grade changes and that prevent a clear path of travel between a roadway and the final site exists for a tractor trailer and crane to expedite delivery. The design/build supplier requires that the owner or their general contractor certify that the required delivery crane must be able to set the building module/modules within 35' distance from the center of the building to the center of the crane hoist.

B. Supplier/Prefabricated Buildings, General Scope of Work

1. The prefabricated restroom building specialist will provide to the Owner or their General Contractor final building design, architectural drawings, and engineering calculations under the responsibility of a licensed structural engineer, in compliance with all local, state and federal codes. The design/build supplier shall construct the building offsite as a permanently relocatable building, transport it to the final required destination, and install the building turnkey, (to 6' from the building footprint) on an owner or general contractor prepared pad per the drawings included in this bid.

2. Licensing: The supplier must comply with all the State of California; Department of Housing and Community Development, prefabricated "Commercial Modular Requirements" as follows:

a) The building *manufacturer* must be licensed by the State of California, Department of Housing and Community Development as a manufacturer.

b) The selling dealer (if applicable) must be a California licensed dealer and present their license for verification with the submittal of the product.

c) The licensed dealer must also possess a State of California Contractors License Board Class B License and present their license for verification with the submittal of the product.

1.8 BID STANDARD FOR THE PREFABRICATED BUILDING

A. The Agency understands that there are several firms who design and build various types of prefabricated public restroom buildings in varying quality and architectural styles, using similar or different construction methods and materials. For the purpose

of this project, the owner has selected:

1. CXT Incorporated, 3808 North Sullivan Road, Building 7, Spokane, WA, 99216 and specifies herein that this firm is the standard for architectural design, safety, green design, code compliance, and site specific compatibility. CXT Incorporated is the standard of building performance and quality for the 50-year building design- life with low maintenance based upon the longevity of the materials selected.

   Contact: Kurt Mee, Territory Sales Manager

   Phone: 303-552-1843
   Email: kmee@lbfoster.com
   Web: www.cxtinc.com

1.9 "OR EQUAL RESTROOM DESIGN/BUILD SUPPLIERS"

A. The Agency may also allow other firms to become qualified to bid but any firms so authorized to bid must comply with the bid specifications and plans, or be subject to rejection of material. If the material is rejected, Contractor shall submit a product meeting the contract specifications at no extra cost to the County.

B. In order to provide full and open competition, other firms may request approval as "or equal." The following items must be provided to the Agency in accordance with substitution requirements outlined in the project specifications. Failure to supply these items will result in material rejection.

1. Or Equal applicant shall provide with their product submission, scaled floor plans and elevations, to show general architectural design criteria is met.

2. Or Equal applicant shall provide with their product submission, a written list of each and every deviation from the published product specifications/plans. Lack of specificity to each deviation from the product specifications will be cause for rejection.

3. Or Equal applicant shall provide with their product submission, manufacturer's certification of test compliance from a national independent testing laboratory (within the past year) to support the claim for absorption resistance of the slab type that will be used in their proposed restroom. The written report must state the concrete compressive strength and absorption resistance per ASTM standard #C39 and #C642, respectively.

4. Or Equal applicant must provide a list of every building they designed and built over the last 3 years utilizing the same building materials/systems design criteria as published in this bid. Provide date of building bid, date of completion, and most knowledgeable owner contact.

5. Or Equal applicant shall provide certification of the special insurance required in this bid.

6. Or Equal applicant shall be responsible for and bear all cost for architecture, plan checks, design and structural engineering and all fees in obtaining approvals and permits from applicable agencies.

7. Precast Concrete Structures will not be accepted.

C. The Agency and/or authorized representative will be solely responsible for the decision to accept or reject the “or equal” submission.

1.10 CERTIFICATION OF OFF-SITE INSPECTION AND CONSTRUCTION COMPLIANCE

A. The off-site restroom construction requires that a licensed third party inspection firm provide the owner and the local building official with certification and compliance for the building with the approved plans and specifications. A certificate of compliance shall be issued by this inspector to the local building official to provide certification that the building meets and or exceeds the approve plans and applicable codes.

1.11 PROVISION FOR MAINTENANCE MANUALS AND WARRANTY

A. At the project conclusion, the building Supplier shall furnish two sets of complete maintenance manuals including a troubleshooting guide, location of manufacturer’s of key components for replacement parts together with final as-built plans, and a One (1) year warranty to the owner or general contractor.

PART 2 - PRODUCTS

2.1 PREFABRICATED RESTROOM

A. The Agency has evaluated several prefabricated building suppliers. These specifications require such a building be used in lieu of site built traditional construction because of the unique built-in advantages guaranteed by the design/build firm. This technology includes many new innovations such as non-absorbent concrete; built in vandal resistance design; lowered maintenance and warranties that reduce owner risk for failure. The specifications below are written around this technology.

2.2 MAT ENGINEERED CONCRETE BUILDING SLAB/FOUNDATION

A. The mat engineered 5” thick slab/foundation shall be engineered and constructed to withstand the transportation weight of the building without cracking and to resist absorption from any liquids deposited on the surface. The concrete slab shall be constructed inside a steel angle curb, reinforced with dual mats (tension and compression).

B. Perimeter Steel Curb: 5/16” 50,000 kip steel 6” X 6” welded continuous angle.

C. Rebar Steel Mat: Two layers of 40,000 tensile steel rebar in varying sizes per engineers requirements, including a perimeter structural continuous grade beam design inside the exterior steel angle and at any other location deemed by the engineer of record as required for the use intended. In coastal locations or when required for corrosion resistance rebar shall be epoxy coated or fiberglass to resist permanent corrosion. Rebar mats shall be wire tied to code with a minimum of three turns of the wire and overlaps shall be minimum of 15 diameters for any connection.

D. All slab openings shall be surrounded with two layers of steel collars as required by the engineer of record to stop corner cracking and to reinforce the openings for lifting.

E. 1” thick by 3” minimum length threaded nuts shall be welded to the steel perimeter

frame with continuous 1/4” fillet welds. Nuts shall be welded to common steel plates per the engineer of records design and attached to the interior steel rebar structural mats.

F. The engineer of record shall provide lifting locations with sufficient reinforcement to allow the safe lifting of the entire designed weight of the structure with dual 1” steel bolts and washers at each lifting location. The number of lifting locations with each location fitted with removable 3/4” x 8” X 8” 50,000 tensile strength steel angles shall be determined by the engineer of record.

G. The slab shall be poured over a 1” thick steel plate table. The concrete mix design shall not exceed a 3” slump and shall be stinger vibrated for maximum consolidation. All floors shall slope to any floor drains within each room and if no floor drain is present the floor should not slope. The surface shall be a very light broom that should meet a coefficient of friction on the surface of .06. Birdbaths shall be cause for rejection.

H. The steel perimeter angle will remain below the concrete surface by nominal two inches to prevent corrosion. After the site concrete sidewalks are poured, the joint shall be full flow sealed with self-leveling gray urethane caulk to prevent penetration of water into the joint.

I. The building shall be designed for future relocation and shall provide protection for the lifting openings in the mat slab so that the threaded openings will be available for future use if needed.

J. The building system shall be designed for placement on a compacted class II aggregate base and/or footings as required by code, per the bid drawings, suitable for 1500 pounds soil bearing capacity per square foot minimum.

2.3 ROOF SYSTEM

A. The roof structure shall be 4 ½” thick concrete slab with a minimum roof pitch of 3/12, and shall have a Cedar Shake texture. Color to be selected by owner.

B. Roof shall be designed per plans to reduce vandals climbing on roof and to obtain proper ventilation size openings.

2.4 INTERIOR WALL FINISH

A. Interior concrete walls shall be 4” thick minimum, have smooth form finish, and shall be cast with inclusion of reinforcing mesh (4x4xW8xW8).

2.5 EXTERIOR WALL FINISH

A. The building exterior finishes shall be split face block walls per the exterior elevations in the bid plans. The precision block shall be covered with a combination of painted lap siding and board and batt fiber-reinforced cement board per the plans. Color to be selected by owner.

2.6 WALL VENTILATION SYSTEM

A. Wall vent shall be crank operated allowing the unit to be opened or closed. Crank will be removable. Vent cover will be 14-gauge 304 stainless steel and anchored into the concrete wall with high strength anti-rust tap con fasteners. Vent to come with insect screen. Cover to be recessed a minimum 3/4” on exterior walls with a 45-degree bevel.

Interior to be flush mounted. Wall vent will not protrude from the wall.

2.7 DOORS AND GATES

A. The restroom doors shall be flush panel type 1¾" thick, minimum 16-gauge galvanized steel, top painted with DTM ALKYD. Door hinges shall be three (3) per door with dull chrome plating 4½" x 4½", adjustable tension, and automatic closing for each door. Lockset shall meet ANSI A156.2 Series 4000, Grade 1 cylindrical lockset for exterior door. Door shall have lever handle both inside and out, and shall have 3. U.S. 26D finish. Dead bolts shall be certified ANSI/BHMA A156.5-2001 Grade 1, heavy duty tamper resistant, 2¾" backset, and shall have U.S. 26D finish. Doorstop shall be a dome style stop meeting ANSI 156.16. Door sweep shall be provided at the bottom of door and will be an adjustable brush type.

B. Door frames shall be knockdown or welded type, single rabbet, minimum 16-gauge prime coated steel top painted with DTM ALKYD, width to suit wall thickness. Three (3) rubber door silencers shall be provided on latch side of frame.

2.8 SPECIALTIES FOR RESTROOM BUILDING

A. All specialty washroom equipment shall be commercial grade stainless steel fastened securely to walls with vandal resistant stainless steel screws to avoid removal by vandals as follows:

1. Toilet paper dispenser shall be constructed of ¼" thick, type 304 stainless steel. Dispenser shall be capable of holding three (3) standard rolls of toilet paper. Toilet paper holder fastening system will be able to withstand 300-pound top loading.
2. Grab bars shall be 18-gauge, type 304 stainless steel with 1½" clearance. Grab bars shall each be able to withstand 300-pound top loading.

B. Coat hook will be 304 stainless steel 16-gauge (1.5mm), formed construction with a satin finish and have $\frac{3}{16}$" x $\frac{7}{8}$" nail in anchor. Upper hook will extend at least 2½" from the wall. Lower hook will extend at least 1¼" from the wall.

C. Signs to have raised pictograms, letters, and braille to meet ADA.

D. Hand dryers shall be Saniflow Model No. SMO6ACS, mounted adjacent to lavatories

E. Changing stations shall be wall mounted, stainless steel models manufactured by Koala Kare.

F. Mirror to be 18" x 36" frameless 430 18-gauge stainless steel with #8 bright polish.

G. Baby Changing Stations shall be manufactured by Koala Kare.

2.9 PLUMBING FOR RESTROOM BUILDING

A. Building shall be fully compliant with the following codes:

1. All applicable State of California Building Codes. Latest edition applicable.
2. California Plumbing Code. Latest edition applicable.

B. GENERAL: All components and fabrications shall be designed to reduce life cycle maintenance, be compatible with current maintenance spare parts, and shall be listed in a spare parts/maintenance manual (two copies) delivered in utility chase of

building.

C. WATER PIPING: Shall be type L copper above grade and soft annealed type K with silver solder below grade. All water piping shall be designed and constructed with high and low point drain fittings. All piping shall be mounted on Uni-strut wall brackets with neoprene isolators, to code.

D. WATER PRESSURE GAUGE/VALVE COMBO: Install three commercial grade industrial water pressure gauges, isolation ball valves, 10 micron water filter with clear canister and check valve.

E. PLUMBING FAUCETS, ISOLATION VALVES AND ACTUATORS: All fixtures except those with flush valves shall be isolated with ball valves for each fixture, concealed hydraulic button- type flush valves, and metered push-button type lavatory faucets.

F. DWV PIPING: DWV piping shall be concealed behind the wall. DWV piping shall be PVC DWV, solvent welded, for all concealed piping. A cast iron no hub DWV vent pipe with a cast iron roof mounted vandal cap vent shall be required, through the roof.

G. REMOVABLE PIPE TRAPS: All floor drain, sink drain, and waste traps shall be removable for maintenance. Floor drains shall be trapped behind the wall in the utility chase using a combination waste and vent system. Floor drains shall be increased two pipe sizes over standard to allow code use. All surface mounted utility chase piping shall be mounted on Uni-strut with plastic isolators to code. Sink drain traps shall be concealed behind the utility chase walls where maintenance staff can access all plumbing.

H. PLUMBING FIXTURES: Plumbing fixtures shall be constructed of vitreous china, manufactured by American Standard. Toilets shall be wall hung, rear discharge, with concealed lever- type flush valves. Toilet seats shall be heavy duty solid core plastic with an open front, non-flammable construction with continuous stainless steel concealed self-checking hinges. Lavatories shall have concealed remote traps behind the mechanical wall. Schedule of fixtures:

1. Water Closets: American Standard, 2634.101
2. Water Closet Flush Valve: Sloan " Royal", 952-1.6
3. Urinal: American Standard, 6515.001
4. Urinal Flush Valve: Sloan "Royal", 995-1
5. Lavatories: American Standard, SLS-7000

I. FLOOR GRATES: Removable 350 lbs per square foot pultruded fiberglass non-skid floor grates shall be installed over every opening in the utility chase for OSHA protection/compliance.

J. HOSE BIB: There shall be one Woodford B65 hose bib provided in the utility chase.

2.10 ELECTRICAL

A. GENERAL: Electrical system and components shall be commercial grade or better and piping conduits shall be installed on commercial Uni-strut wall hangers. Interior and exterior electrical lighting fixtures in public areas shall provide lifetime manufacturer's warranty.

B. PANEL/WIRING: One 200 amp main industrial grade Panel Board, Square "D" QO series, shall be mounted in the utility chase in the restroom building. All breakers shall be plug- on type, minimum 22,000 A.I.C. RMS (Sym) at 120/240 vac. Wiring shall be stranded copper wire #12 min in EMT piping with screw fittings.

C. PIPING: All piping shall be surface mounted to the masonry block walls with minimum of 2" fastener penetration. EMT conduit shall be compression type. Main panel shall maintain a 30" X 36" safety code required clear space, floor to 6' above finished floor.

D. EXTERIOR LIGHTING: Swoop 610, LED, vandal resistant, wall mounted, 14 watt, clear prismatic lens with built in photoelectric control.

E. INTERIOR LIGHTING: Luminaire VPF84, LED, vandal resistant surface mounted, LED Lamp, wrap around lens, low temperature driver, built-in occupancy sensor activated with additional occupancy sensor for fan control.

F. CHASE LIGHTING: Luminaire VPF84, LED, vandal resistant surface mounted, LED Lamp, wrap around lens, low temperature driver, built-in occupancy sensor activated with wall switch override.

G. LIGHTING CONTROL: All exterior restroom lighting shall be controlled occupancy sensor.

H. ELECTRICAL OUTLETS: (2) commercial spec grade dedicated GFI duplex in the men's and women's restrooms.

I. WATER HEATER (Restroom Lavatories): Shall be 30 gallon high efficiency commercial grade provided per code located in the utility chase.

2.11 SHIPPING PROTECTION

A. The building, while traveling over roads to the destination may encounter inclement weather or road grime that could require substantial cleaning when it arrives on site. The building shall be shrink-wrapped before transportation and sufficiently strong to arrive at the owner site intact for exterior finish protection. Materials removed on site shall be disposed of and recycled by restroom building install staff.

2.12 CERTIFICATIONS

A. Building shall be certified in compliance with the plan approved by the State of California, Department of Housing and Community Development and shall be delivered with an applied insignia in compliance with all State regulations. The local building authority shall provide site inspections for the underground mechanical piping and final connections, footings, and access issues outside the restroom footprint. Restroom building subcontractor shall also furnish 1 year warranty, certifications for the concrete slabs, specification compliance, and maintenance manuals for the building and components.

PART 3 - EXECUTION

3.1 SITE SCOPE OF WORK BY OWNER OR GENERAL CONTRACTOR

A. The owner or general contractor shall prepare the restroom building sub grade pad to receive the prefabricated building in accordance with the bid drawings.

1. The building pad shall be excavated to 17” deep from the final building concrete slab elevation in accordance with the drawing titled “restroom foundation.”
2. The building pad shall meet a 95% compaction in lifts using class II base for the first six inches and compacted native soil for the final six inches, leaving the finished sub base pad elevation at finished floor, minus 5”.
3. The Owner or General Contractor shall provide water point of service at 30” below finished building slab; sewer at 24” below the finished building slab; and electrical at 36” below the finished building slab or other per bid plans.
4. Owner or their General Contractor shall coordinate with restroom supplier to provide full site delivery access for a 70’ tractor-trailer and hydro crane to the final building site.
5. If the final site access is over existing sidewalks, utilities, or landscaping, the owner or their general contractor shall be responsible for plating and or tree trimming, utility line removal, or other to protect any existing conditions.
6. The hydro crane must be able to locate no greater than 35’ from the center point of the building to the center point of the crane.
7. The utilities shall be furnished per bid site plans at specified points of connection (POC) nominally 6’ from the building line.
8. Owner or their general contractor shall furnish and install final grading, landscaping and sidewalks.

3.2 CONNECTION TO UTILITIES

A. The restroom subcontractor will furnish Electrical, Water, and Sewer at the proper POINT OF CONNECTION AND AT THE PROPER ELEVATION BELOW GRADE, for this project. Restroom subcontractor shall provide final hook up of the water from building to POC; sewer hookup to septic system; and electrical sleeve from building panel to POC only. Final utility connections shall be by owner, their general contractor, or others. Owner or their general contractor shall flush the water lines thoroughly before making final water connection to the building.

END OF SECTION

SECTION 26 00 00
ELECTRICAL GENERAL REQUIREMENTS

PART 1 – GENERAL

1.01 GENERAL REQUIREMENTS

A. It is the responsibility of the Contractor to obtain and thoroughly review construction drawings and specifications that pertain to this project where requirements for electrical construction exist in other drawings and specifications the Contractor shall include these in the bid. As a minimum, these other drawings shall include plans by the building electrical engineer, the aquatic consultant, the security consultant /installer, the dry utility consultant, and the fire alarm consultant/installer (if applicable).

B. The Contractor shall furnish and install all material, labor, and equipment necessary for a complete and operable site electrical system. The Contractor shall make application and coordinate all required permits, inspections, and examinations. Permit fees are paid by the Owner.

C. The electrical drawings, which constitute an integral part of the technical specifications, are schematic and they are intended to indicate a general layout of the electrical system. These drawings indicate the desired locations and arrangements of conduit runs, outlets, equipment, etc., and are to be followed as closely as possible. In all cases of material and equipment visible to view above grade, the contractor shall stake the locations of the material and equipment and obtain approval for placement from the Owner's representative prior to any permanent installation. The actual field conditions of construction, including the work of the other trades involved in the construction will dictate the exact methods and materials to be used. The Contractor is responsible to adequately review the plans and work of the other trades to assure that the work is properly coordinated with others and that conflicts are avoided.

D. During the progress of the work, the Contractor shall maintain an accurate record of the installation of the system on as-built drawings which shall be submitted to the Owner's representative at the completion of construction. All as-built notations shall be neat and orderly and submitted in reproduced format.

1.02 CODES, STANDARDS, AND PERMITS

A. Design, manufacture, testing and method of installation of all apparatus and materials furnished under requirements of these specifications shall conform to latest publications or standard rules of the following:

- Institute of Electrical and Electronic Engineers - IEEE
- National Electrical Manufacturers' Association - NEMA
- Underwriters' Laboratories, Inc. - UL
- National Fire Protection Association - NFPA
- Federal Specifications - Fed. Spec.

- American Society for Testing and Materials - ASTM
- American National Standards Institute – ANSI
- California Electrical Code - CEC
- National Electrical Code - NEC
- National Electrical Safety Code - NESC
- Insulated Cable Engineers Association - ICEA
- American Institute of Steel Construction - AISC
- Municipal Codes In Force In The Specific Project Area
- Occupational Safety and Health Administration (OSHA)

B. Perform Work in accordance with the California Electrical Code and the National Electrical Code, applicable building ordinances, and other applicable codes, hereinafter referred to as the "Code." The Contractor shall comply with the Code including local amendments and interpretations without added cost to the Owner. Where Contract Documents exceed minimum requirements, the Contract Documents take precedence. Where code conflicts occur, the most stringent shall apply unless variance is approved.

1. Comply with all requirements for permits, licenses, fees and codes.
2. Comply with requirements of the applicable utility companies serving this Project. Make all arrangements with utility companies for proper coordination of Work

1.03 WORKMANSHIP

A. The Contractor shall be responsible to use experienced personnel who are fully competent and familiar with proper installation techniques and with the manufacturers' recommendations relative to the products that are used. As a minimum, personnel shall be equivalent to that of a licensed journeyman electrician. The Contractor shall be fully responsible for the work methods and safety of these personnel. In the acceptance or rejection of the finished installation, no allowance will be made for the lack of skill on behalf of the personnel.

B. Work In Cooperation With Other Trades

1. Examine the Drawings and Specifications and determine the work to be performed by the electrical, mechanical and other trades. Provide the type and amount of electrical materials and equipment necessary to place this work in proper operation, completely wired, tested and ready for use. This shall include all conduit, wire, disconnects, relays, and other devices for the required operation sequence of all electrical, mechanical and other systems or equipment.

1.04 CONSTRUCTION REVIEW

The Electrical Engineer reserves the right to visit the job site for the purpose of determining that the work of the Contractor is in general compliance with the intent of the construction documents.

1.05 SCHEDULE OF WORK

A. The Contractor shall be responsible for the scheduling of his work to meet the

required completion date and shall also coordinate with other Contractors so that the overall project can be accomplished on schedule. When product submittals are required as defined in subsequent sections of this specification, the Contractor shall allow 15-calendar days for the Electrical Engineer to review the submittals of the specified products.

1. If the Contractor is seeking a substitution of any products, he shall allow an additional 15-calendar days for review time. The Contractor is responsible to arrange these lead times such that they do not delay the completion of the project.

B. Immediately upon the issuance of the Notice to Proceed the Contractor shall coordinate with the suppliers of intended materials and products to be used in construction to verify that delivery of these materials and products will not impact the completion date of construction.

1.06 SUBMITTALS-TO BE SUBMITTED PDF FORMAT

Prior to ordering any material, i.e.: lighting fixtures, lamps, service and distribution equipment, transformers, wiring devices, cabinets, conduit, wire, pull boxes or relays, the Contractor shall submit manufacturers' catalogs and/or shop drawings to the Electrical Engineer/Owner for approval. Six (6) copies, with **ALL** materials included, are required to be submitted for review. The Contractor will be notified when the review is completed and at such time, the Contractor may order material and products. The submittals shall be in one package, bound together.

A. General: Provide submittals per the requirements of the Contract Documents. The Material List and Product Data shall be submitted within 14-days of award of Contract; Shop Drawings shall be submitted within 14-days of award of Contract.

1. Review of submittals by Owner is for general conformance with the design concept of the Project, and general compliance with the information given in the Contract Documents. Any action indicated is subject to the requirements of the plans and specifications. Contractors' responsibility includes but is not limited to: coordination of work with all trades, as well as satisfactory performance of their work; physical dimensions which shall be correlated and confirmed at the job site; quantities; and fabrication and construction methods.

B. Materials List and Product Data: Submit a complete list of materials proposed for the Project. Provide product data for items as required. For each item proposed, the Material List shall identify item description, manufacturer's name and model/catalog numbers, with reference to applicable specification paragraph(s). Product data shall include catalog cuts and other descriptive literature defining type, ratings, size, and capacity.

C. Shop Drawings: Submit shop drawings, packaged as associated equipment groups (for example, all switchgear, or all lighting fixtures and controls). Prior to submitting the shop drawings for review, the Contractor shall verify that the proposed equipment will fit in the location(s) indicated, and that the equipment as installed will comply with all code required electrical working clearance requirements.

Submittals, which are intended to be substitution items, shall be specifically noted as

such or the requirements of the Contract Documents will prevail regardless of the suitability of the proposed substitution item. Shop drawings shall include the following:

Immediately after award of contract and before ordering any products or materials, the Contractor shall submit the required submittals of products for the review of the Electrical Engineer as indicated in subsequent sections of this specification. The review by the Electrical Engineer of these submittals is for checking the conformance with the design concept of the project.

1. Catalog cut sheets for component items.
2. Dimensioned plans, elevations, and details.
3. Schematic and wiring diagrams, including description of required operating sequences and testing/commissioning procedures.
4. Certified equipment inspection/test records, and warranty certificates.

D. Substitutions: Where products are specified in the drawings by manufacturer and part number, these specific products shall be used unless the Contractor receives prior written approval for substitution from the Electrical Engineer. The Contractor shall submit to the Electrical Engineer manufacturers' data in sufficient detail for the purpose of review. The Electrical Engineer reserves the right to accept or deny the substitution request.

E. Operating and Maintenance Manuals: Prior to the substantial completion of the project, the Contractor shall submit six (6) sets of operating and maintenance manuals. In addition to the requirements specified in the Contract Documents (also see technical specification sections following for additional requirements), include the following information for equipment items:

1. Description of function, normal operating characteristics and limitations, performance curves, engineering data and tests, and complete nomenclature and commercial numbers and replacement parts.
2. Manufacturer's printed operating procedures to include start-up, break-in, and routine and normal operating instructions; regulation, control, stopping, shutdown, and emergency instructions; and, as required, summer and winter operating instructions.
3. Maintenance procedures for routine preventative maintenance and trouble-shooting; disassembly, repair, and reassembly; aligning and adjusting instructions.
4. Servicing instructions and schedules.

1.07 CLEANING

All exposed parts of electrical equipment shall be completely and thoroughly cleaned and free from cement, plaster, paint, etc. All scratches, dents, and mars are to be refinished identical in appearance to the original factory finish and in a manner acceptable to the Owner’s representative at no additional cost to the contract.

In addition, any concrete structures such as equipment pads and light fixture bases shall be consistent in finish and color, without chips and cracks, and the repairs and final finishes shall be uniform with surrounding concrete work. Any final concrete work that is not acceptable to the Owner’s representative shall be redone or replaced by the

contractor at no additional cost to the contract.

1.08 UTILITY COMPANY CHARGES: The voltage, phase and ampacity of the electrical service shall be as shown in the project drawings. Other information shown on the drawings relative to utility company requirements is preliminary and subject to change by the utility company (i.e. power, telephone, CATV, etc.). The Contractor is fully responsible for the use of any information that is not in the form of a final construction drawing issued by the utility company for final use on the project.

This cost shall be included in the bid. If this information is not available to the Contractor prior to the bid, then the Contractor shall estimate what these costs will be and include these estimates in the bid. Under no circumstances will the Contractor be relieved from his obligation to provide for the utility company requirements whether or not they are shown on the drawings. Furthermore, the Contractor shall not be eligible for any additional compensation from the Owner relative to utility company requirements.

PART 2 - PRODUCTS

2.01 PRODUCT AND MATERIALS

A. All products and materials used in the project shall be new and delivered to the job site in the original packaging.

B. All materials used and furnished for which UL Standards have been established shall be listed and bear the label of Underwriters Laboratories, Inc.

C. Prior to ordering any lighting fixtures, service and distribution equipment, transformers, wiring devices, dimming cabinets and systems, and/or emergency power equipment, the Contractor shall submit manufacturers' catalogs and/or shop drawings to the Electrical Engineer for approval. This requirement is required to check whether or not the Contractor truly has the proper drawings, equipment, part numbers, and manufacturers, etc. Six (6) copies are required to be submitted for review. The Contractor will be notified when the review is completed and at such time, the Contractor may order material and products.

PART 3 - TESTING AND ADJUSTING OF ELECTRICAL SYSTEM

3.01 INSULATION RESISTANCE TESTING

It is the responsibility of the Contractor to assure the integrity of the insulation in all wiring. It is required that all wiring be tested as it is installed. This testing is to be conducted by a licensed electrician utilizing methods and equipment that are acceptable by members of the trade. See the drawings for the Agency’s specific requirements for insulation testing and recording. A written record of this testing shall be made by the Contractor indicating the time and date of the test, the name of the person conducting the test, the equipment and method used, and this record shall be kept by the Contractor and made available to the Electrical Engineer and Owner upon request for a period of three (3) years following completion of the construction.

3.02 SYSTEMS AND EQUIPMENT TESTING

Control systems for outdoor lighting shall be verified by thoroughly testing during installation.

3.03 GROUND TESTING

It is the responsibility of the Contractor to assure the integrity of the grounding system throughout the project and it is mandatory that the entire system be thoroughly tested. A written record of this testing shall be made by the Contractor indicating the time and date of the test, the name of the person conducting the test, the equipment and method used, and this record shall be kept by the Contractor and made available to the Electrical Engineer and Owner upon request for a period of three (3) years following completion of the construction.

3.04 GFI AND GFCI EQUIPMENT TESTING

A. All GFI circuit breakers and GFI convenience outlets shall be thoroughly tested during installation and at the completion of the project.

END OF SECTION

SECTION 26 50 00
BASIC MATERIALS AND METHODS

PART 1 - GENERAL

1.01 QUALITY ASSURANCE

The Contractor is responsible to assure that all material and equipment delivered to the job site are new and in proper usable condition. All materials and products used are to be inspected and may be rejected if found to be defective or flawed. It shall be the responsibility of the Contractor to assure that this element of the specifications is satisfactorily completed. The Agency reserve the right to reject any materials or equipment that are deemed to be flawed or defective in the finished project.

1.02 PRODUCT AND EQUIPMENT VERIFICATION

A. The Contractor shall be responsible to check all products and equipment that is specified in the drawings when it is received at the job site to assure that it is in fact compatible with the electrical plans based upon the enclosed manufacturers' instructions including any instructions or information placed on the products and equipment.

B. In the case of service and distribution equipment the Contractor shall verify that the nameplates agree with the approved shop drawings relative to voltage, phase, bus ampacity, short circuit and/or AIC rating, and enclosure type.

C. In the case of lighting fixtures, the Contractor shall verify the fixture is rated for the specified lamp, the specified input voltage, the specified mounting and/or installation application, and the specified control system.

PART 2 - PRODUCTS

2.01 CONDUIT GENERAL

A. All conductors and wiring are to be installed in conduit unless the drawings clearly state that conduit is not required and that the use of an approved cable is permitted. Conduits are to be concealed in all finished areas. The conduits shall be continuous terminating only in junction boxes, panels, approved wireways, etc.

B. Where non-metallic conduit is used in construction, the Contractor shall include a ground conductor in the run whether or not shown on the drawings and the conduit shall be sized accordingly.

2.02 RIGID NON-METALLIC CONDUIT (RNMC)

RNMC may only be used underground or in or below concrete slabs when used for conductors of 110 volts or higher. Conduit shall be polyvinyl chloride schedule 40, electrical conduit, rated 90 degrees C. Only approved electrical fittings may be used. Where run in concrete maintain a minimum of four (4) inches of cover on all sides and convert to rigid galvanized steel to stub out of concrete.

Any conduit and fittings installed for the use of a utility company shall meet the requirements of the utility company for such installations except that in the case of conduit for high voltage feeders (600 volts or above) the Contractor shall take special precaution to provide safety to persons excavating around and about the installation.

It is the responsibility of the Contractor to provide for this protection but it is recommended that one (1) or more of the following methods be utilized: concrete encasement of at least two
(2) inches of concrete on all sides of the conduit; concrete or concrete slurry three (3) or more inches deep on top of conduit; three (3) or more inches of sand on top of conduit and redwood planks run continuously on sand; a warning tape manufactured for direct burial placed six (6) inches above the conduits.

2.03 RIGID METAL CONDUIT (RMC), PVC COATED

A. SCOPE

The PVC-coated, threaded conduit system is specifically designed to prevent corrosive conditions from causing early replacement of the conduit. All the conduit, fittings, and supporting products shall be provided by the same manufacturer to ensure that a five-year product warranty is achieved.

B. CLASSIFICATION AND USE

The PVC-coated, threaded conduit system is approved for all applications where rigid metal conduit is permitted. Also, it will replace the need for wider fill around Rigid Metal Conduit (RMC) where judged suitable for the conditions (reference NEC Article 344, II, C).

C. PRODUCT MANUFACTURER

PVC-coated, Galvanized Rigid Conduit (GRC) and fittings as manufactured by Plasti-Bond, Perma-Cote, and KorKap. Any deviation will require approval of the specifying engineer or owner and shall meet all the performance standards specified herein and verified by a nationally recognized testing agency.

D. MATERIALS

The PVC coated galvanized rigid conduit must be UL Listed and ETL Verified. Both the PVC and Zinc coating must have been investigated by UL as providing primary corrosion protection for the rigid metal conduit. Ferrous fittings for general service locations must be UL Listed with PVC as the primary corrosion protection. Hazardous location fittings, prior to plastic coating must be UL listed. All conduit and fittings must be new, unused material.

The PVC coated galvanized rigid conduit must be ETL Verified to the Intertek ETL High Temperature H2O PVC Coating Adhesion Test Procedure for 200 hours. The PVC coated galvanized rigid conduit must bear the ETL Verified PVC-001 label to signify compliance to the adhesion performance standard.

The conduit shall be hot dip galvanized inside and out with hot galvanized threads.

A PVC sleeve extending one pipe diameter or two inches, whichever is less, shall be formed at every female fitting opening except unions. The inside sleeve diameter shall be matched to the outside diameter of the conduit. The PVC coating on the outside of conduit couplings shall have a series of longitudinal ribs 40 mils in thickness to protect the coating from tool

damage during installation. Form 8 Condulets shall have a V-Seal tongue-in-groove gasket to effectively seal against the elements. The design shall be equipped with a positive placement feature to ease and assure proper installation. Certified results confirming seal performance at 15 psig (positive) and 25 in. of mercury (vacuum) for 72 hours shall be available. Form 8 Condulets shall be supplied with plastic encapsulated stainless steel cover screws.

Urethane coating of nominal 2 mil thickness shall be uniformly and consistently applied to the interior of all conduit and fittings. Conduit or fittings with thin or no coating shall be unacceptable.

The PVC exterior and urethane interior coatings applied to the conduit shall afford sufficient flexibility to permit field bending without cracking or flaking at temperatures above 30°F (-1°C).

All female threads on fittings and couplings shall be protected by urethane coating.

Right angle beam clamps and U bolts shall be specially formed and sized to snugly fit the outside diameter of the coated conduit. All U bolts will be supplied with plastic encapsulated nuts that cover the exposed portions of the threads.

E. EXECUTION INSTALLATION

Installers of the PVC-coated galvanized rigid conduit system must be certified by the manufacturer and be able to present a valid, unexpired certified installer card prior to starting installation. All clamping, cutting, threading, bending, and assembly instructions given during the manufacturer's certified installation training should be vigorously followed.

Steel RMC shall be mild steel, hot dipped galvanized inside and outside, and all couplings and connectors shall be tapered pipe thread. Running threads and split couplings are not permitted.

2.04 NOT USED IN THIS PROJECT

2.05 FLEXIBLE METAL CONDUIT (FMC)

FMC shall be steel or aluminum with UL listing. Fittings shall be steel or malleable iron threaded.

2.06 PULL AND JUNCTION BOXES

A. Boxes are to be installed in all conduit runs in sufficient numbers to meet the requirements of codes, special requirements of utility companies, requirements of providers of special equipment and systems, and to allow for efficient and convenient installation of conductors. It is the responsibility of the Contractor to locate these boxes and size them according to code requirements. Boxes shown on the drawings are to be installed as shown, but do not necessarily indicate all boxes necessary for any installation. Boxes installed in outdoor or wet locations shall be of the type approved for the purpose.

B. Boxes used in the utility site system shall be marked Electric, Telephone, or CATV as appropriate. Concrete boxes shall be installed on a 12-inch crushed rock base and

all surfaces visible above grade shall be fully fabricated from natural concrete with no coatings or special finishes including sealants. The Contractor shall coordinate the finished elevation with specific conditions of the installation. In general the Contractor shall attempt to locate boxes such that they are as visually unobtrusive as possible and shall obtain approval from the Owner's representative for all locations prior to any permanent installations. Boxes used in runs for primary feeders of panels, transformers, switchboards, and other distribution equipment shall indicate the originating source and destination on the cover (i.e. "MSB to P10"), and they shall not be shared for sub feeds to more than one (1) of the above types of equipment.

C. Boxes located outdoors in landscape or in traffic areas, shall be pre-casted with concrete as manufactured by Christie, as indicated on plans. The covers of these boxes shall be appropriate to their specific location. Boxes used in the utility site system, covers shall be marked Electric, Telephone, or CATV as appropriate. Concrete boxes shall be installed on a 12-inch crushed rock base. In general the Contractor shall attempt to locate boxes such that they are as visually unobtrusive as possible and shall obtain approval from the Owner's representative for all locations prior to any permanent installations.

1. The Contractor shall coordinate the finished elevation with the specific conditions of the installation. In general the Contractor shall attempt to locate boxes such that they are as visually unobtrusive as possible.

D. Boxes located in wet areas shall be installed with conduits in boxes such that they are protected from intrusion of water. Furthermore, if there is a possibility that water can enter buildings or equipment by entering into conduits owing to grades and elevations, the Contractor shall make the Electrical Engineer and Owner aware of this field condition prior to completion of the installation so as to allow the Electrical Engineer and Owner to take appropriate actions and protective measures.

2.07 CONDUCTORS

A. The Contractor shall be responsible to install all conductors used on the project in compliance with Article 310 of the NEC. In the event that the Contractor receives approval from the Inspector to utilize insulation types other than those shown on the drawings he shall pay particular attention to ensure that these conductors are properly sized.

B. Conductors used as service entrance conductors, to sub feed switchboards, panels, transformers, and other equipment, where the wire sizes are #6 and larger shall be installed with the wire size, insulation class, and voltage rating indications on the insulation visible without inside the equipment without touching the conductors from the front of the connections.

C. Where conductors of multiple phases are pulled through the same conduit to feed more than one (1) equipment they shall be color-coded. These colors shall be permanent and consistent for the entire run. The choice of colors is the option of the Contractor except that grounds shall be green, and neutrals shall be white.

D. The Contractor may gather runs of conductors based on field decisions but shall comply with the applicable code requirements. Conductors #10 AWG and larger shall be stranded. The minimum wire size to be used is #10 THWN CU (AWG). The

minimum insulation rating shall be 600 volts.

E. All conductors shall be copper with THWN or THHN insulation. In no event may aluminum conductors be used.

2.06 CONNECTORS

A. Copper conductors for wire sizes #10 AWG and smaller shall be spliced utilizing "spring- lock" connectors, in particular, "Scotchlock" by 3M or "Wing Nuts" by Ideal. The Contractor is responsible to assure that all splices are completed in a secure and permanent fashion, maintaining the integrity of the connection without faults or shorts. In cases where the conductors may be affected by adverse conditions the Contractor shall take special precaution to protect the conductors such as by wrapping connectors with an appropriate tape.

B. Copper conductors for wire sizes #8 AWG and larger shall be made with approved split bolt connectors. These types of uninsulated connections shall be thoroughly protected with applied insulation such as 3M #2200 vinyl insulating pads.

C. Connections made in outdoor locations shall follow all applicable code requirements for wire terminations.

PART 3 - EXECUTION

3.01 TRENCHING / EXCAVATION

Where specifications appear in the architectural or site electrical portion of the specifications that pertain to trenching and backfilling, the Contractor is responsible to review these specifications and comply. In the absence of other specifications, the Contractor shall:

A. Comply with the NEC relative to the minimum depths of conduits and shall comply with any utility company requirements relative to these depths.

B. Maintain a minimum of 12-inches separation between: 0-600 volt feeders; and over 600 volt feeders; and low voltage (telephone, alarm, communications, CATV, other Class 2 conductors, etc.); and non electrical installations (water, gas, drains, sewers, etc.). This condition shall apply to joint trench situations and to conditions where trenches cross.

C. Each layer of backfill shall be compacted to a minimum density of 90% and the top six (6) inch shall be compacted to 95% maximum density. Proper procedure is to use a “stomper” type compaction device, place properly moistened earth in six (6) inch lifts, and make at least three (3) passes per lift. Proceed until trench is filled. It is the responsibility of the Contractor to provide verification that this condition is accomplished.

D. Upon completion of backfill and compacting the Contractor shall leave the site in the same condition that it was at the commencement of the work. This requirement includes replacement of any damaged landscape materials, asphalt, concrete, other pavements and finish materials, fences, lawns, trees, etc. Additionally, the Contractor shall be responsible for any damage to other installations such as sprinkler lines, and the like. If the Contractor feels that damage

to other installations is unavoidable then it is his responsibility to bring this to the attention of the Electrical Engineer and Owner prior to any specific work to allow the Electrical Engineer and Owner to designate corrective procedures.

E. Upon completion of the trenching and backfill the Contractor is responsible to remove any excess dirt, rock, and other debris from the job site.

END OF SECTION

SECTION 26 56 00
LIGHTING FIXTURES

PART 1 - GENERAL

1.01 EQUIPMENT

Lighting fixtures as indicated in the drawings shall be furnished by the Contractor. The Contractor is responsible to coordinate with the manufacturers of specified fixtures and assure that submittals for approvals and subsequent orders and delivery dates will not conflict with the job schedule. The Contractor shall apply the following procedure to the ordering of light fixtures:

A. The Contractor shall maintain complete and accurate documentation of communications with the suppliers.

B. The Contractor shall request fixture submittals for the approval of the Electrical Engineer within five (5) days of notification of the award of contract and shall verify that the submittals have been received by the Electrical Engineer/Owner, and allow for 15-days review time.

C. The confirmed order for the purchase of the fixtures shall be placed within an adequate time period to allow for the timely delivery of the fixtures. If there is to be a delay in the delivery the Contractor shall make every reasonable attempt to inform the Electrical Engineer and Owner of the delay at the soonest possible time. As a minimum, the Contractor is to secure a confirmed delivery date from the manufacturer at the time of ordering and follow up on this delivery date periodically until the order is received by the Contractor.

D. In the event that there is to be a delay in delivery the Contractor is to make available to the Electrical Engineer and Owner all of the written records pertaining to the order.

1.02 QUALITY ASSURANCE

A. Lighting fixtures shall be manufactured by a recognized manufacturer and bear the approval label of a test lab recognized by the code enforcing agency. Additionally, this label shall conform to the specific location of installation such as "damp" or "wet".

B. All fixtures shown on the drawings are to be furnished with all necessary mounting devices and accessories. In all cases the Contractor is responsible to install fixtures with proper and appropriate structural support.

C. Lamps shall be provided for all fixtures. Where specific lamps are indicated in the drawings these lamps shall be provided. Where general specifications of lamps are given they shall be Sylvania, General Electric, or Philips, and approved by the Electrical Engineer prior to purchase.

D. The Contractor shall exercise care when handling and installing fixtures to protect finishes and lenses and other visible components. The Agency reserves the right to reject any damaged or flawed materials and products.

PART 2 - PRODUCTS

2.01 LED SCONCE LIGHTS

A. Ballast for the fixtures shall be:

LED - Operates in -40°C to 40°C ambient with optional high ambient 50°C ambient configuration. Circuit module designed to withstand 4kV of transient line surge. >L70 100,000 hours at 40°C, compliant with IESNA TM-21. 120V-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. Controls Standard with 0-10V dimming driver(s). Optional occupancy sensor. Optional wireless control and monitoring system

PART 3 - EXECUTION

3.01 LIGHTING POLE BASES

A. Where light pole assemblies include components set perpendicular to the pole, these members are to be set plumb with respect to right angles. Light fixture poles shall be set within one (1) degree of plumb.

B. Contractor to wire lights.

END OF SECTION

SECTION 31 10 00
SITE CLEARING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Clearing of site.

1.03 RELATED WORK SPECIFIED ELSEWHERE

A. Division 31 Section "Grading".
B. Division 31 Section "Excavation and Fill for Utilities".
C. Division 31 Section "Excavation and Fill for Structures".
D. Division 32 Section “Site Concrete Work”.

1.04 DEFINITIONS

A. Clearing: Removal of trees, shrubs, bushes, and other organic matter found at or above original ground level.

B. Grubbing: Removal of stumps, roots, boards, logs, and other organic matter found at or below original ground level.

C. Topping: Removal of those portions of trees, bushes, and shrubs projecting above an elevation or plane shown or indicated on Drawings.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Provide all materials, equipment, and appurtenances required for completion of clearing work.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine surfaces for conditions that will adversely affect execution, permanence, and quality of work of this Section.

B. Do not proceed with work until unsatisfactory conditions have been corrected.

3.02 PROTECTION

A. Public and Adjacent Properties: Protect in accordance with applicable laws and ordinances. Existing on-site features, including flora scheduled to remain: Protect from damage at all times.

1. Do not allow earth-moving equipment within the branch spread perimeter (drip line) of existing trees which are to remain.
2. Do not impact, trespass upon, or otherwise violate areas designated on Drawings as easements, buffer zones, wetlands, or similar environmentally-sensitive areas.
3. Protect existing piezometers and monitoring wells located on-site which have been identified and flagged by Owner.

B. Utilities:

1. Protect all active utility lines on-site.
2. Remove from site abandoned lines encountered during clearing and grubbing operations.
3. Capping and/or rerouting of active utility lines encountered during clearing and grubbing operations shall be performed as part of the work of other Sections.
4. Expeditiously repair damaged utilities at no cost to Owner.

C. Dust control:

1. Throughout entire construction period, effectively dust-palliate working area, unpaved roads, and involved portions of the site.
2. Palliation: Intermittently water and sprinkle with such frequency as will satisfactorily allay dust at all times. Chemical treatment of any type is not permitted.
3. Use of reclaimed water shall conform to requirements and guidelines of governing health authorities and be specifically approved by Owner.

D. Soil redistribution: Do not redistribute existing soils beyond immediate area of origin.

3.03 CLEARING

A. Limit of Clearing: Areas indicated on Drawings. Clearing limits shall be approved by Owner prior to starting clearing operations.

B. Remove trees, saplings, shrubs, bushes, vines, and undergrowth within limits of clearing.

3.04 GRUBBING

A. Limits of grubbing: As specified for clearing.

B. Remove tree stumps and root systems completely, unless removal damages roots of plants to remain. Refer to Division 31 Section "Excavation and Fill for Utilities" for protection of existing plants to remain.

C. For vegetation other than trees, remove stumps, roots, and matted roots to depths specified below:

1. Under footings: 18 inches.

2. Under walks: 12 inches.
3. Under roads: 18 inches.
4. Under parking areas: 12 inches.
5. Under planting areas: 12 inches. Under fills: 8 inches.
6. Where footings, roads, walks, and other construction is on fill, the greater depth applies.

3.05 DISPOSAL

A. Burning of materials on-site is not permitted.

B. Removal:

1. Remove materials resulting from clearing and grubbing operations from site daily as they accumulate.
2. When work continues beyond normal working hours, do not allow materials to accumulate on-site for more than 48 hours.

3.06 TREE REMOVAL, RELOCATION, OR SALVAGE

A. Protect trees to remain from damage (see tree preservation notes on demolition plan).

B. Cut and remove other trees including stumps, from site unless designated on Drawings to remain or be relocated.

C. Verify with Owner which trees are to be salvaged, removed, or relocated.

END OF SECTION

SECTION 31 22 00
GRADING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Site grading, including:

1. Site stripping.
2. Removal of organic soils.
3. Import or export of soils as required to complete grading.
4. Rough grading and shaping of site.
5. Final finish grading and shaping of site.
6. Groundwater control and dewatering of excavations.
7. Removal from site and proper disposition of all debris and excess material resulting from the work.
8. Fill and compact holes resulting from removals.

1.03 RELATED WORK SPECIFIED ELSEWHERE

A. Geotechnical Report (Supplemental Information).

B. Division 31 Section "Excavation and Fill for Utilities".

C. Division 31 Section "Excavation and Fill for Structures".

D. Division 31 Section "Erosion and sedimentation controls".

E. Division 32 Section “Site Concrete Work”.

1.04 DEFINITIONS

A. Dewatering: Control of surface water runoff and ground water accumulation.

1.05 QUALITY ASSURANCE

A. Tests and Inspections:

1. Procedure: In accordance with Division 01 Sections.
2. Required tests:

a. Fill material: Determine suitability of fill material not previously evaluated.
b. Maximum density tests: Determine optimum moisture content and maximum dry density of fill materials placed and compacted in accord with ASTM D 1557, Procedure A.
c. Field density tests: Determine in-place density of fill materials placed

and compacted in accord with ASTM D 1556, ASTM D 2922, or ASTM D 2937. Provide one test for every 10,000 sq. ft. per lift.

d. Certification of all subgrade improvements and engineered fills and subgrades with respect to their adequacy and suitability values for intended uses.
e. Suitability and classification testing for all soils of unknown characteristics prior to use as compacted fills.
f. Other tests as may be required by Owner.

3. Required inspections and controls:

a. General inspection of stripping of surfaces and removal of root mat, peat, organic soils (muck), clay, and other unsuitable material.
b. Detailed inspection of exposed subgrades prior to finishing or placing fill materials.
c. Continuous control of placing and compacting of all engineered fills.
d. Continuous inspection and monitoring during placing and compacting operations.
e. Observation and consultation in processes of bank shaping, safety in excavations, dewatering, and identification of materials encountered.

B. Requirements of regulatory agencies: In addition to complying with other legal requirements, comply with the following.

1. Code of Federal Regulations Title 29 CFR Part 1926, Subpart P, Excavations.
2. Occupational Safety and Health Administration Document 2226.

C. Reference specifications and standards:

1. ASTM: D 1556 Density and Unit Weight of Soil in Place by the Sand-Cone Method.
2. ASTM: D 1557 Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft.-lbf/ft3).
3. ASTM: D 2922 Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
4. ASTM: D 2937 Density of Soil In-Place by the Drive-Cylinder Method.
5. CFR: Title 29 CFR Part 1926 Safety and Health Regulations for Construction.
6. OSHA: Document 2226 Excavations.

D. Allowable tolerances:

1. Grading elevations and contours: Accuracy of final grading elevations be the responsibility of a civil engineer or land surveyor licensed in the State of California.
2. Grade (cut or fill) site to the elevations indicated on Drawings within the following tolerances:

a. All cuts and fills: Within a tolerance ±0.10 feet for grades indicated on Drawings.

b. Structures at or on grade: Within 0.02 feet (including hardscape).

PART 2 - PRODUCTS

2.01 MATERIALS

A. On-site and borrow fill:

1. Non-expansive, predominantly granular material:

a. Particles less than 2 inch in any dimension;
b. Free of organic and inorganic debris;
c. Not more than 12 percent by weight passing the No. 200 sieve.

2. Acceptable to geotechnical engineer retained by Owner.
3. Top soil: All soil above the lower root line of fine vegetation (grasses and sod).
4. Borrow site: At location approved by Owner.

B. Recycled fill: Refer to Division 02 Section "Selective Site Demolition". Limit use as follows:

1. Not more than 10 percent (by volume, compacted) of total fill.
2. Not less than 2 feet below bottom of concrete foundations.
3. Imported, recycled fill is not acceptable.

PART 3 - EXECUTION

3.01 PROTECTION

A. Public and adjacent properties: Protect in accord with applicable laws and ordinances.

B. Existing on-site features, plant life, including trees, scheduled to remain:

1. Protect from damage at all times.
2. Do not allow earth-moving equipment within the branch spread perimeter (drip line) of existing trees.

C. Utilities:

1. When utility line excavation occurs near existing utilities, whether or not indicated on Drawings, maintain existing utility services fully operational. Protect and support utility lines in a manner to prevent damage. Method of protection is subject to Owner's approval.
2. Expeditiously repair damaged utilities at no cost to Owner.
3. Remove abandoned lines encountered during excavating and dispose of off-site. Report unidentified lines to Owner prior to removal.
4. Capping and rerouting of indicated active utility lines encountered during Work of this Section will be performed as part of the work of section pertaining to utility encountered.

D. Dust control:

1. Throughout entire construction period, effectively dust-palliate working area, unpaved roads, and involved portions of site.
2. Palliation: Intermittently water and sprinkle with such frequency as will satisfactorily allay dust at all times. Chemical treatment of any type is not permitted. Use of reclaimed water shall conform to requirements and guidelines of governing health authorities and be specifically approved by Owner.

3.02 STRIPPING AND CLEARING

A. Strip dry ground areas of all top soil, surface vegetation, muck, roots, organic material, and debris to result in a uniform surface of exposed clean, natural sand or soils.

B. Except as directed otherwise by Owner, dispose of all waste materials to legal off-site disposal areas.

C. Soil redistribution: Do not redistribute existing soils beyond immediate area of origin

3.03 EXCAVATIONS

A. Excavate materials of every nature to dimensions and elevations indicated. Use equipment of suitable type for materials and conditions involved.

B. Where additional excavation is required to remove unsatisfactory materials encountered, such additional work shall be paid for by means consistent with terms of the Contract.

C. Remove from site materials not approved for use as topsoil or fill and excess excavated materials.

3.04 FILLING, COMPACTING, AND GRADING

A. Filling:

1. Place fill in uniform lifts not exceeding 8 inches in loose thickness that will uniformly compact to the required densities.
2. Bring each layer to between ±2 percent of optimum moisture content before compaction. Add water by uniform sprinkling and mixing with soils. Add or blend additional fill materials or dry out existing materials as required.
3. When moisture content and condition of each layer is satisfactory, compact to specified density. Compact areas not accessible to motor-driven equipment with mechanical or heavy hand tampers.
4. Rework compacted areas failing to meet specified density as determined by tests. Recompact and retest as required or directed to achieve proper density.
5. Correct unauthorized excavation made below depth indicated, as acceptable to geotechnical engineer retained by Owner, at no additional cost to Owner.
6. Do not place fill materials until subgrade is acceptable to geotechnical engineer retained by Owner, nor until preceding fill layer is acceptable.
7. Prior to placing fill material on existing surfaces, scarify to a depth of 6 inches and recompact to same degree of compaction as overlying fill material.

B. Compacting:

1. Parking and pavement areas: Compact soils below all parking areas, walks, slabs, and asphalt pavement to 90 percent of the Modified Proctor maximum dry density for full depth of fill.
2. Landscape areas: Compact soils below all landscape, planting ,and sod areas to 85 percent of the Modified Proctor maximum dry density for the full depth of fill. Building areas: Compact soils below all buildings and for a distance of 5 feet beyond

perimeter footing to at least 90 percent of the Modified Proctor maximum dry density for the full depth of fill. Proof roll within these limits with a self-propelled vibratory compactor capable of imparting a maximum dynamic drum force of at least 36,000 lb. Proof roll from a level that is 2 feet above ambient water table. This may require locally filling low areas prior to utilizing a vibratory compactor. Densify subsoils by making repeated overlapping coverages of roller as it operates at its full vibrational frequency, and at a travel speed of not more than 2 feet. per second.

3. Minor structures: Support catch basins and other minor structures on bottom and all sides by soils compacted to 90 percent of the Modified Proctor maximum dry density for full depth of fill.

C. Grading:

1. Grade (cut or fill) site to the elevations indicated on Drawings within the following tolerances:

a. All cuts and fills: Within a tolerance ±0.10 feet for grades indicated on Drawings.

b. Structures at or on grade: Within 0.02 feet (including hardscape).

2. Elevations and contours indicated on Drawings are to finish grade unless otherwise indicated. Make allowances for pavement thickness, bases, and sod material where applicable.

3.05 DEWATERING

A. Drain excavations and other prepared work areas occurring below groundwater level and maintain in a dewatered condition while performing work at those elevations.

B. Prevent surface water drainage from entering excavations, and ponding on subgrades and other prepared work areas.

C. Maintain dry excavations and subgrades by whatever means necessary while working in each area.

1. Reduce groundwater level to a sufficient depth to ensure that bottom soils are not saturated or develop a "quick" condition.

2. Reroute surface water drainage away from excavations, prepared subgrades, and other work areas.

3. Prevent excessive rainwater, to the extent that detrimental softening, undermining, washout, and similar damage would occur, from accumulating in excavations, upon subgrades, and at other prepared work areas.

4. Do not use excavations as temporary drainage.

D. Dewatering methods selected by Contractor shall be subject to approval by Owner.

END OF SECTION

SECTION 31 23 02
EXCAVATION AND FILL FOR UTILITIES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Dewatering, excavating, shoring, sheeting, bracing, trenching, backfilling, and all other earthwork operations required for utility and other underground lines and appurtenances.

B. Providing access to open trenches after utility lines have been installed and bedded, but prior to backfilling being commenced for inspection purposes.

1.03 RELATED WORK SPECIFIED ELSEWHERE

A. Geotechnical Report (Supplemental Information).

B. Division 31 Section "Excavation and Fill for Structures".

C. Division 33 Section "Underground Utilities Marking".

D. Division 33 Section “Site Water Distribution System”.

E. Division 33 Section “Septic Sewer System”.

1.04 QUALITY ASSURANCE

A. Tests and inspections:

1. Procedure: In accordance with Division 01 Sections.
2. Test methods:
    a. Maximum dry density of backfill materials shall be determined by ASTM D 1557, Procedure A.
    b. Field density tests shall be determined by ASTM D 1556, ASTM D 2922, or ASTM D 2937.
3. Required tests:
    a. Backfill material: Determine suitability of backfill and bedding material not previously evaluated.
    b. Maximum density tests: Determine optimum moisture content and maximum dry density of backfill and bedding materials placed and compacted.
    c. Field density tests: Determine in-place density of backfill materials placed and compacted. Conduct one test for every 100 linear feet of trench and one test for each 1 foot vertical lift.

d. Other tests as may be required by Owner.

4. Required inspections:

a. Excavation inspection: Detailed inspection of exposed excavations prior to placing bedding and backfill material.

b. Bedding conditions: Determine and evaluate condition of bedding to receive utility lines.

B. Requirements of regulatory agencies: In addition to complying with other legal requirements, comply with the following.

1. Code of Federal Regulations Title 29 CFR Part 1926, Subpart P, Excavations.
2. Occupational Safety and Health Administration Document 2226.

C. Reference specifications and standards:

1. ASTM: D 1556 Density and Unit Weight of Soil in Place by the Sand-Cone Method.
2. ASTM: D 1557 Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft.-lbf/ft3).
3. ASTM: D 2922 Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
4. ASTM: D 2937 Density of Soil In-Place by the Drive-Cylinder Method.
5. CFR: Title 29 CFR Part 1926 Safety and Health Regulations for Construction.
6. OSHA: Document 2226 Excavations.

1.05 SUBMITTALS

A. Procedures: In accordance with Division 01 Sections.

B. Drawings and engineering design calculations: Signed and sealed engineering drawings and calculations for required shoring, sheeting, or cribbing for approval prior to starting installation of shoring, sheeting, or cribbing.

PART 2 - PRODUCTS

2.01 MATERIALS

A. On-site materials: Materials obtained by selective stockpiling of excavated soils.

1. Bedding: Unless indicated otherwise on Drawings, conform to the following.

a. Clean sand and native free-draining granular materials, free from all vegetation and debris or as indicated on Drawings.

b. Bedding shall meet gradation requirements when tested in accord with ASTM D 422 and have a minimum sand equivalent of 30 as determined by ASTM D 2419.

Sieve Size	% Passing Sieve by Weight
1/2 in.	100
No. 4	70 - 100
No. 16	50 - 90
No. 50	10 - 50
No. 200	0 - 10

2. Backfill: Clean material, free from all vegetation and debris. Do not use rocks or lumps larger than 2 inches in any dimension.

B. Borrow fill:

1. Non-expansive, predominantly granular material:

   a. Particles less than 2 inches in any dimension;
   b. Free of organic and inorganic debris;
   c. Not more than 12 percent by weight passing the No. 200 sieve behind retaining walls and 25 percent elsewhere.

2. Acceptable to geotechnical engineer retained by Owner.

PART 3 - EXECUTION

3.01 PROTECTION

A. Public and adjacent properties: Protect in accord with applicable laws and ordinances.

B. Existing on-site features, plant life, including trees, scheduled to remain:

1. Protect from damage at all times.
2. Do not allow earth-moving equipment within the branch spread perimeter (drip line) of existing trees.
3. Do not cut tree roots over 2 inches in diameter without prior approval from Owner.
4. Support trees during excavation in an approved manner.
5. When excavation adjacent to existing trees is necessary, use all possible care to avoid injury to trees and tree roots. Excavate by hand all areas where 2 inch and larger roots occur. Tunnel under and heavily wrap with burlap roots 2 inches and larger in diameter, except directly in the path of pipe or conduit, to prevent scarring or excessive drying. When a trenching machine runs close to trees having roots smaller than 2 inches in diameter, hand trim wall of trench adjacent to tree, making clean cuts through roots. Paint roots 1 inch and larger in diameter with two coats of Tree Seal, or Owner-approved equivalent. Close trenches adjacent to trees within 24 hr.; when this is not possible, shade side of trench adjacent to tree with burlap or canvas.
6. All work around and adjacent to existing trees, including inspection prior to backfill, shall be approved by Owner. Obtain Owner's approval in writing for all procedures prior to commencement of work. Trees that die due to damage or unacceptable work shall be back-charged to Contractor.

C. Where utility line excavation occurs in lawn, grassed, or landscaped areas, carefully remove and stockpile sod and plants to preserve for transplanting.

1. Place excavated material from trenches on lawn or grass, provided a drop cloth or other approved method is employed to protect lawn or grass from permanent damage. Do not keep stockpiled materials on lawn or grass for more than 72 hr.
2. Immediately after completion of backfilling and testing of utility lines, replace sod and replant plants in a manner to restore lawn, grass, and landscaping to its original condition within practical limits. Replace damaged landscaping at no cost to Owner as part of the work of this Section.

D. Where utility line excavation occurs in paved areas, saw-cut existing pavement along straight, uniform lines such that the amount of pavement cut and removed shall be the minimum consistent with safe excavation practices.

1. Do not use removed pavement as backfill material.
2. Replace removed pavement with new pavement to match existing in accord with Project Specifications.

E. Open trenches: Barricade all open trenches during work hours and cover at the close of each day's work.

F. Utilities:

1. When utility line excavation occurs near existing utilities, whether or not indicated on Drawings, maintain existing utility services fully operational. Protect and support utility lines in a manner to prevent damage. Method of protection is subject to Owner's approval.
2. Expeditiously repair damaged utilities at no cost to Owner.
3. Remove abandoned lines encountered during excavating and dispose of off-site. Report unidentified lines to Owner prior to removal.
4. Capping and rerouting of indicated active utility lines encountered during Work of this Section will be performed as part of the work of section pertaining to utility encountered.

G. Dust control:

1. Throughout entire construction period, effectively dust-palliate working area, unpaved roads, and involved portions of site.
2. Palliation: Intermittently water and sprinkle with such frequency as will satisfactorily allay dust at all times. Chemical treatment of any type is not permitted.
3. Use of reclaimed water shall conform to requirements and guidelines of governing health authorities and be specifically approved by Owner.

H. Water control:

1. Maintain trenches and other excavations free of water while lines are being placed and until backfill has been completed and approved.
2. Maintain adequate pumping equipment at all times to provide for emergencies.
3. Dispose of water in such a manner as not to create a nuisance, cause damage to

property, or interfere with activities of other contractors. Prevent water from migrating outside of construction areas. Use Owner-approved methods and materials to confine water to construction areas. Failure to contain water is not permitted.

4. Dewater as required to maintain site in a relatively dry condition, including well point dewatering.
5. Methods of dewatering and disposal of water are subject to Owner's approval.

I. Bracing and shoring:

1. Support excavations in accord with all legal requirements.
2. Set and maintain sheet piling and shoring timbers in a manner that will prevent caving of walls of excavations or trenches and not impose other loads or surcharges on lines.
3. When it is impractical to remove shoring and bracing, obtain approval from Owner to leave in place. Record locations of such "in-place" shoring and bracing on Project Record Documents.

J. Stockpiled excavated materials: Confine excavated materials to immediate area of stockpiled location.

K. Soil redistribution: Do not redistribute any existing soils beyond the immediate area of origin.

3.02 EXCAVATION

A. General: Include removal of materials and obstructions that interfere with the execution of the Work.

1. Unless indicated otherwise, excavation for utilities lines shall be by open trench.
2. Sides of trenches shall be as nearly vertical as practicable.
3. Obtain prior approval from Owner for use of tunneling.

B. Trench widths:

1. Lines less than 6 inches outside diameter: 18 inches minimum.
2. Larger lines: Clear distance on each side of line of not less than 8 inches or more than 1/2 of outside diameter of line.

C. Trench depth: Excavate trenches to lines and grades as necessary for construction of utility lines indicated.

D. Over-excavation: Backfill over-depth excavations to required grade with specified bedding and backfill material. Compact bedding and backfill material to specified density.

E. Perform any dewatering and pumping required to keep excavations free of standing water.

F. Refer to geotechnical reports (Supplemental Information) for seasonal high groundwater table elevation estimates. It is the sole responsibility of contractor to make its own judgments as to the actual conditions, and to draw its own conclusions as to means and methods required for performance of the work. Provide dewatering, if required, at whatever elevation groundwater is actually encountered.

G. A plan for any proposed dewatering shall be submitted for approval prior to commencement of any such work. Any permitting for dewatering which may be required shall be the responsibility of Contractor.

H. Sequence, schedule, coordinate, and perform the work so as to maintain safe, unobstructed passage as required for emergency egress and general site access. Provide any and all bridging of trenches of work, barricades, etc., that may be required to comply with this requirement.

3.03 BACKFILL

A. General: Backfill consists of bedding, backfill, and restoration of surface.

B. Bedding: Bedding is defined as material supporting, surrounding, and extending to 12 inches above the top of utility line. Bedding shall not be required under or around structures, except at utility lines.

1. Do not cover lines until they have been inspected and approved for alignment and grade and recording of record or "as-built" survey information has been performed.
2. Commence bedding immediately after approval and survey information recording, to preclude damage to utility lines.
3. Carefully place bedding around utility lines so as not to displace or damage line, and fill symmetrically on each side of line to 12 inches above top of line.
4. Compact bedding to 90 percent of the maximum dry density in accord with ASTM D 1557 using mechanical equipment.

C. Backfill: Backfill includes material from 12 inches above the lines to, and including, surface restoration.

1. Do not backfill against structures until concrete has attained sufficient strength to withstand loads, and structures have been approved.
2. Place backfill in loose uniform lifts not exceeding 8 inches.
3. Use mechanical compactors for compaction of backfill.

D. Coordinate and ensure installation of underground utilities marking in accord with Division 33 Section "Underground Utilities Marking".

E. Compacting:

1. Parking and pavement areas: Compact soils below parking areas, walks, slabs, and asphalt concrete pavement to 90 percent of the maximum dry density in accord with ASTM D 1557 for full depth of fill.
2. Landscape areas: Compact soils below landscape, planting, or sod areas to 85 percent of the maximum dry density in accord with ASTM D 1557 for full depth of fill.
3. Building areas: Compact soils below all buildings and for a distance of 5 feet beyond perimeter footing to at least 90 percent of the maximum dry density in accord with ASTM D 1557 for full depth of fill.
4. Minor structures: Support catch basins and other minor structures on bottom and all sides by soils compacted to 90 percent of the maximum dry density in accord

with ASTM D 1557 for full depth of fill.

3.04 ADJUST AND CLEAN

A. Surface restoration:

1. Restore surface areas over trenches equivalent to conditions which existed prior to start of work.

B. Reconstruct surfaces in accord with applicable Sections of the Specifications.

3.05 Disposal:

1. Debris:

a. Remove and dispose of all rubbish, debris, and vegetation as it accumulates.

b. Dispose of debris off-site or at an on-site disposal area designated by Owner.

2. Excess soil: Stockpile at an on-site area designated by Owner.

END OF SECTION

SECTION 31 23 04
EXCAVATION AND FILL FOR STRUCTURES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Excavating, backfilling, and compacting for structures.

B. Restore grades to required elevations.

C. Remove excess materials from site.

D. Pumping and dewatering.

E. Support of excavations.

1.03 RELATED WORK SPECIFIED ELSEWHERE

A. Geotechnical Report (Supplemental Information).

B. Division 03 Section "Cast-In-Place Concrete".

C. Division 31 Section "Excavation and Fill for Utilities".

1.04 QUALITY ASSURANCE

A. Tests and inspections:

1. Procedure: In accordance with Division 01 Sections.

2. Test methods:

a. Maximum dry density of backfill materials shall be determined by ASTM D 1557, Procedure A.
b. Field density tests shall be determined by ASTM D 1556, ASTM D 2922, or ASTM D 2937.

3. Required tests:

a. Backfill material: Determine suitability of backfill material not previously evaluated.
b. Maximum density tests: Determine optimum moisture content and maximum dry density of backfill materials placed and compacted.
c. Field density tests: Determine in-place density of backfill materials placed and compacted. one test for every 100 cu. yd. of material placed and one test for each 1 foot vertical lift.
d. Other tests as may be required by Owner.

4. Required inspections:

a. Excavation inspection: Detailed inspection of exposed excavations prior to placing backfill material.
b. Placement and compaction inspection: Continuous inspection and monitoring.

B. Requirements of regulatory agencies: In addition to complying with other legal requirements, comply with the following.

1. Code of Federal Regulations Title 29 CFR Part 1926, Subpart P, Excavations.
2. Occupational Safety and Health Administration Document 2226.

C. Reference specifications and standards:

1. ASTM: D 1556 Density and Unit Weight of Soil in Place by the Sand-Cone Method.
2. ASTM: D 1557 Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft.-lbf/ft3).
3. ASTM: D 2922 Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
4. ASTM: D 2937 Density of Soil In-Place by the Drive-Cylinder Method.
5. CFR: Title 29 CFR Part 1926 Safety and Health Regulations for Construction.
6. OSHA: Document 2226 Excavations.

1.05 SUBMITTALS

A. Procedures: In accordance with Division 01 Sections.

B. Drawings and engineering design calculations: Signed and sealed engineering drawings and calculations for required shoring, sheeting, or cribbing for approval prior to start of installation of shoring, sheeting, or cribbing.

PART 2 - PRODUCTS

2.01 MATERIALS

A. On-site materials and borrow fill:

1. Non-expansive, predominantly granular material:

a. Particles less than 2 inches in any dimension.
b. Free of organic and other deleterious materials.
c. Not more than 12 percent by weight passing the No. 200 sieve behind retaining walls and 25 percent elsewhere.

2. Sand Fill compliant with USAV Standards
3. Acceptable to a geotechnical engineer retained by Owner.
4. Top soil: All soil above the lower root line of fine vegetation (grasses and sod).
5. Borrow site: At location approved by Owner.

PART 3 - EXECUTION

3.01 PROTECTION

A. Public and adjacent properties: Protect in accord with applicable laws and ordinances.

1. Existing on-site features, plant life, including trees, scheduled to remain: Protect from damage at all times.
2. Do not allow earth-moving equipment within the branch spread perimeter (drip line) of existing trees.
3. Do not cut tree roots over 2 inches in diameter without prior approval from Owner.
4. Support trees during excavation in an approved manner.
5. When excavating adjacent to existing trees is necessary, use all possible care to avoid injury to trees and tree roots. Excavate by hand areas where 2 inch and larger roots occur. Tunnel under and heavily wrap with burlap roots 2 inches and larger in diameter, except directly in the path of pipe or conduit, to prevent scarring or excessive drying. When a trenching machine runs close to trees having roots smaller than 2 inches in diameter, hand trim wall of trench adjacent to tree, making clean cuts through roots. Paint roots 1 inch and larger in diameter with two coats of Tree Seal, or Owner-approved equivalent. Close trenches adjacent to trees within 24 hr.; when this is not possible, shade side of trench adjacent to tree with burlap or canvas.
6. All work around and adjacent to existing trees, including inspection prior to backfill, shall be approved by Owner. Obtain Owner's approval in writing for all procedures prior to commencement of work. Trees that die due to damage or unacceptable work shall be back-charged to Contractor.

B. Utilities:

1. When utility line excavation occurs near existing utilities, whether or not indicated on Drawings, maintain existing utility services fully operational. Protect and support utility lines in a manner to prevent damage. Method of protection is subject to Owner's approval.
2. Expeditiously repair damaged utilities at no cost to Owner.
3. Remove abandoned lines encountered during excavating and dispose of off-site. Report unidentified lines to Owner prior to removal.
4. Capping and rerouting of indicated active utility lines encountered during Work of this Section will be performed as part of the work of section pertaining to utility encountered.

C. Dust control:

1. Throughout entire construction period, effectively dust-palliate working area, unpaved road, and involved portions of site.
2. Palliation: Intermittently water and sprinkle with such frequency as will satisfactorily allay dust at all times. Chemical treatment of any type is not permitted.
3. Use of reclaimed water shall conform to requirements and guidelines of governing health authorities and be specifically approved by Owner.

D. Water control:

1. Maintain excavation free of water while foundations are being placed and until backfill has been completed and approved.
2. Maintain adequate pumping equipment at all times to provide for emergencies.
3. Dispose of water in such a manner as not to create a nuisance, cause damage to property, or interfere with activities of other contractors. Prevent water from

migrating outside of construction areas. Use Owner-approved methods and materials to confine water to construction areas. Failure to contain water is not permitted.

4. Dewater as required to maintain site in a relatively dry condition, including well point dewatering.
5. Methods of dewatering and disposal of water is subject to Owner's approval.

E. Cribbing and shoring:

1. Provide temporary or permanent cribbing, sheeting, and shoring as necessary to safely retain earth banks and protect excavations from caving or other damage.
2. Design, install, and maintain cribbing, sheeting, and shoring and remove after use.

F. Stockpiled excavated materials: Confine excavated materials to immediate area of stockpiled location.

G. Soil redistribution: Do not redistribute existing soils beyond immediate area of origin.

3.02 STRIPPING

A. Stockpile materials from excavations suitable for use in fill and backfill.

B. Remove from site materials not approved for use as topsoil, fill or backfill, and excess excavated materials.

3.03 EXCAVATING

A. Excavate materials of every nature to dimensions and elevations indicated on Drawings. Use equipment of suitable type for materials and conditions involved.

B. Extend excavation a sufficient distance from walls to allow for forming and shoring, application of waterproofing, installation of services, and approvals. Do not excavate below indicated depths.

C. Foundations: Excavations may be made to net sizes plus 2 inches for casting concrete directly against earth banks, provided, in the opinion of the Agency’s inspector of record or geotechnical engineer, earth banks are sufficiently stable to remain in position until concrete has been placed.

1. If, in the opinion of Engineer, earth banks are not stable enough for concrete placement, excavate additional width necessary to provide space for formwork, and backfill after forms have been removed.
2. All trenches shall be formed.

D. Correct unauthorized excavation made below depths indicated on Drawings, as recommended by geotechnical engineer retained by Owner, at no additional cost to Owner.

E. Where additional excavation is required to remove unsatisfactory materials encountered, such additional work shall be paid for by means consistent with terms of Contract.

3.04 FILL, BACKFILL, AND COMPACTION

A. Fill and backfill:

1. Place earth fill and backfill in layers that will uniformly compact to required densities, but in loose layers not more than 8 inches thick.
    a. Place backfill only after walls have been supported by completion of interior floor systems or have been sufficiently braced to resist imposed loading.
    b. Place backfill against walls below grade after waterproofing systems have been completed and approved.
    c. Protect waterproofing systems during backfill operations. If waterproofing is damaged, do not continue backfilling until membrane damage is repaired as approved by Owner.
    d. Restore grades to indicated elevations.
2. Sand fill for volleyball courts
    a. Place fill only after walls have been supported by completion of interior floor systems or have been sufficiently braced to resist imposed loading.
    b. Sand import shall comply with USAV Standards and shall meet the following standard:

Material Sizes (% Retained)	Grade	Gravel	V. Coarse	Coarse	Medium	Fine	V. Fine	Pan (Clay+Silt) < 0.05
	Millimeter	2.0mm	1.0mm	.5mm	.25mm	.15mm	.05mm	
	Screen	#10	#18	#35	#60	#100	#270	
USAV Standards	Benchmark	0	5.1	46	41.8	3.9	2.4	0.7
	USAV Confidence Interval	50%	50%	10%	10%	15%	30%	25%
	Acceptable Variance	0	2.6-7.7	41.4-50.6	37.6-45.9	3.3-4.5	1.7-3.1	0.5 - 0.9
% Recommended		< 2%	< 15%	Combined 78% - 100%			< 5%	< 3%
Penetrometer Value (kg/cm2)		Crusting	Crusting	Color (dry)		Infiltration Rate (in/hr)		Sphericity/Angularity
Acceptable: 1.8 to 2.4; Superior > 24		Light to None		Personal Preferance		> 20 inches/hour		Angular to Subangular

3. Slurry cement (lean concrete) backfill:
    a. Where specifically indicated on Drawings, slurry cement backfill consisting of a fluid, workable mixture of aggregate, cement, and water shall be used as foundation structure backfill.
    b. Cement shall be Portland cement conforming to provisions in Division 03 Section "Cast-In-Place Concrete", except that testing will not be required.
    c. Water used for slurry cement backfill shall be free from oil, salts, and other impurities which would have an adverse effect on quality of backfill material.
    d. At Contractor's option, aggregate shall be either 1) material selected from excavation, imported material, or a combination thereof, which is free of organic material and other deleterious substances, or 2) commercial quality concrete sand. Material selected from excavation, imported material, or a combination thereof shall meet the following grading:

Sieve Sizes	Percentage Passing
1-1/2 in.	100
1 in.	80-100
3/4 in.	60-100
3/8 in.	50-100
No. 4	40-80
No. 100	10-40

e. Aggregate, cement, and water shall be proportioned either by weight or by volume. Not less than 188 lb. of cement shall be used for each cu. yd. of material produced. Water content shall be sufficient to produce a fluid, workable mix that will flow and can be pumped without segregation of aggregate while being placed.

f. Materials for slurry cement backfill shall be thoroughly machine-mixed in a pugmill, rotary drum, or other approved mixer. Mixing shall continue until cement and water are thoroughly dispersed throughout material. Slurry cement backfill shall be placed in the Work within 1 hr. after mixing.

g. Slurry cement backfill shall be placed in a uniform manner that will prevent voids in, or segregation of, backfill and will not float or shift foundation structures. Foreign materials which fall into trench prior to or during placing of slurry cement backfill shall be immediately removed.

h. Placing material over slurry cement backfill shall not commence less than 4 hours after slurry cement backfill has been placed.

B. Compaction:

1. Bring each layer to with ±2 percent of optimum moisture content before compaction. Add water by uniform sprinkling. Jetting and flooding are prohibited. Add and blend additional fill materials or dry out existing materials as required.
2. When moisture content and condition of each layer is satisfactory, compact to not less than 90 percent of maximum dry density in accord with ASTM D 1557.
3. Compact areas not accessible to motor-driven equipment with mechanical or heavy hand tampers.
4. Rework compacted areas failing to meet specified maximum dry density, as determined by tests. Recompact and retest as required to achieve 90 percent of the maximum dry density in accord with ASTM D 1557.

C. Grading:

1. Build compacted backfills to indicated or required finish grades, less allowances for thickness of slabs, paving, and required base courses.
2. Rough grade backfilled surfaces smooth, level to within 0.10 foot of intended surface. Compact loose material and maintain in a moist condition until covered.

END OF SECTION

SECTION 31 25 00
EROSION AND SEDIMENTATION CONTROLS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Erosion, sedimentation and water pollution control features in place or relocated as indicated on Drawings, prior to start of all grading or construction.

1.03 RELATED WORK SPECIFIED ELSEWHERE

A. Temporary facilities and controls.

B. Division 31 Section "Grading".

1.04 DEFINITIONS

A. Control features: Includes, but not limited to berms, erosion control blankets, gravel bags, sand bags, silt barriers, silt fences, swales, and other features in accord with referenced specifications and standards.

1.05 QUALITY ASSURANCE

A. Performance criteria: Prevention, control and abatement of erosion, sedimentation and water pollution shall be in accord:

1. As indicated on Drawings.
2. As called for in the Agency's Storm Water Pollution Prevention Plan (SWPPP).
    a. Contractor shall be responsible for implementing the approved SWPPP and all water board online reporting required by the SWPPP, which will be provided by the Agency.
3. As established under the accepted Contractor's Stormwater Management Plan (CSMP):
    a. Contractor shall prepare a comprehensive plan for the management of incident and transient storm water within the limits of work or such larger area as may be indicated on the plans.
    b. Contractor's plan shall indicate all measures required to comply with the applicable requirements of the SWPPP as relates to the Work and the situation within limits of work during the Contract Time.
4. Reference specifications and standards: Agency's approved Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall conform to the requirements in these Technical Specifications, and the California Stormwater Best Management Practice Handbook for Construction.

1.06 SUBMITTALS

A. Procedures: In accordance with Division 01 Sections.

B. Shop drawings: Plans and details, including layout and locations of erosion and sedimentation control features. Indicate dimensions, materials, and anchorage underlying substrates.

C. Product data:

1. Manufacturer's detailed technical materials and application data.
2. Submit filter fabric material specifications and installation configuration prior to start of construction.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Materials for control features: In accord with referenced specifications, standards, and approved submittals.

PART 3 - EXECUTION

3.01 ERECTION

A. General: Erect and maintain control features in accord with Drawings and referenced specifications, standards, and approved submittals.

B. Maintenance:

1. Inspect control features immediately after each rainfall and similar event, and at least once a day during periods of prolonged rainfall and similar events. Immediately repair control features to maintain intended function and performance.
2. Replace sandbags and other materials that exhibit damage, decomposition, or are otherwise ineffective.
3. Prevent excessive accumulation of sediment deposits. Remove sediment deposits at a frequency of not less than after each rainfall and similar event.

3.02 REMOVAL OF CONTROL FEATURES

A. Remove control features when directed by Owner.

END OF SECTION

SECTION 32 13 13
SITE CONCRETE WORK

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Site concrete work, including subgrade preparation, formwork, reinforcing steel, concrete, and accessory materials for:

1. Pavement.
2. Footings for fence posts, and similar work of other trades.
3. Thrust blocks for pressure piping systems.
4. Mechanical and electrical equipment pads.
5. Other site concrete work as indicated on Drawings.

1.03 RELATED WORK SPECIFIED ELSEWHERE

A. Geotechnical Report (Supplemental Information).

B. Division 31 Section "Grading".

C. Division 32 Section "Concrete Paving Joint Sealants".

D. Division 33 Section "Septic Sewerage System".

E. Precast concrete and other use concrete specified as part of Division 22 Plumbing and Division 26 Electrical and Lighting.

1.04 DEFINITIONS

A. Slip resistance: Slip index of not less than 0.5 when tested dry and wet (with an unbroken film of pure water) in accord with ASTM F 1677 or ASTM F 1679, using a Neolite test pad.

1.05 QUALITY ASSURANCE

A. Geotechnical data: Refer to Geotechnical Report (Supplemental Information).

B. Tests and inspections:

1. Testing laboratory services: Refer to Division 01 Sections. Soil bearing and compaction:
    a. Test methods:
        1) Maximum dry density of backfill materials shall be determined by ASTM D 1557, Procedure A.
        2) Field density tests shall be determined by ASTM D 1556, ASTM D

2922, or ASTM D 2937.

b. Required tests:

1) Backfill material: Determine suitability of backfill material not previously evaluated.

2) Maximum density tests: Determine optimum moisture content and maximum dry density of backfill materials placed and compacted.

3) Field density tests: Determine in-place density of backfill materials placed and compacted. one test for every 1000 cubic yard of material placed and one test for each 1 foot vertical lift.

4) Other tests as may be required by Owner.

c. Required inspections:

1) Excavation inspection: Detailed inspection of exposed excavations prior to placing backfill material.

2) Placement and compaction inspection: Continuous inspection and monitoring.

2. Concrete: In accord with SSPWC Section 201-1.1.4 and as specified herein.

a. Portland cement: Furnish cement mill test reports and manufacturer's certification that cement complies with specification requirements.

b. Required tests:

1) Aggregate:

a) Hardrock aggregate: Test in accord with ASTM C 33.

b) Do not deliver aggregates to site or ready-mix plant until pit source has been approved, and plant, capacity, and ability to produce a uniform and continuous product has been verified.

c) Take samples from aggregate stockpiles assigned to project.

2) Slump tests: Make one slump test in accord with ASTM C 143 for each set of test cylinders: Make additional tests as may be ordered by Owner.

a) Make and keep an accurate record of all tests.

b) Maximum slumps: As specified hereinafter.

3) Test cylinders: Take one sample of four cylinders from each day's placement of 100 cubic yards or fractional part thereof of each mix design in accord with ASTM C 172. Take samples at evenly spaced intervals as concrete is deposited in forms. Mark cylinders with date, sample number, and location in structure from which sample was taken. Do not take more than one sample of four cylinders from any location or batch of concrete.

a) Make and store cylinders in accord with ASTM C 31. Curing: At the end of 24 hours, take cylinders to laboratory and store under moist curing conditions at approximately 70°F until

tested.

b) Testing: Test cylinders in accord with ASTM C 39. Test one cylinder at age of 7 days for information and two cylinders at 28 days for acceptance. Maintain one cylinder in reserve.

c) Seven-day strength: Not less than 60 percent of specified ultimate 28-day strength.

d) Mix adjustment: Should test results indicate concrete strength below specified 7-day or 28-day minimum requirements, decrease water/cement ratio and adjust mix proportions as necessary to achieve specified minimum strengths.

e) Concrete failures: Should test results indicate that concrete strength requirements for any portion of work does not conform to 28-day minimum requirements, secure core or prism specimens of hardened concrete and test in accord with ACI 301 and ASTM C 42.

f) Laboratory shall secure and test specimens under Owner's direction.

c. Ready-mix plant inspections:

1) Testing laboratory shall provide and maintain continuous inspection at plant to check sieve analysis for quality and moisture content of aggregates, check mix with design mixes, check cement being used with test reports, check loading of mixer trucks, and certify quantities of materials loaded in each mixer truck.

2) Certification: Provide batch tickets signed by dispatcher and testing laboratory inspector at ready-mix plant. Each batch ticket shall state batch quantities of cement, water, fine aggregates, coarse aggregates, and admixture contained in each truck load.

3) Deliver to Owner's representative on job site a properly signed ticket with each load of ready-mix concrete.

3. Reinforcing steel:

a. Quality control of identifiable steel:

1) Submit to laboratory copies of mill certificates for all types, sizes, and heats of reinforcing steel intended for use in the work. Include the following information:

a) Source of steel.

b) Description.

c) Heat number.

d) Yield point.

e) Ultimate tensile strength.

f) Elongation percentage in 8 in. length.

g) Bend test results.

2) Chemical analysis, including carbon equivalent (CE) of ASTM A 615 bars to be welded. All costs in connection with tests and inspections

of identifiable steel will be paid by Owner.

b. Quality control of unidentifiable steel:

1) When steel cannot be identified, testing laboratory shall make one series of tensile tests and one series of bend tests in accord with ASTM A 370 or ASTM A 615, for each 5 tons or fractional part thereof of each size and kind of reinforcing steel. Make tests using a minimum of two separate samples. Test full sections of bars as rolled.

2) All costs in connection with tests and inspections of unidentifiable steel will be paid by Contractor.

c. Field quality control for welding:

1) Inspection and tests of welds shall be made by testing laboratory for reinforcing bar welds, as follows:

a) Certification of welders engaged in electric-arc welding of reinforcing.
b) Inspection of reinforcing bar welds.
c) X-ray test of one of the first arc-welds made by each welder; full penetration splice welds.
d) Two tensile tests of sample welds of the largest size bar for each type of welding.

2) Owner will pay all costs in connection with tests and inspections for welding of reinforcing steel splices when such welding is indicated on Drawings.

3) All costs in connection with tests and inspections for welding of reinforcing steel splices not indicated on Drawings will be paid by Contractor.

4. Payment:

a. Owner will pay all costs for all tests and inspections except retests and reinspections required because of failures.
b. All costs incurred for retests and reinspections required because of failure of original tests will be paid by Contractor.

C. Reference specifications and standards:

1. ACI: 301 Specifications for Structural Concrete for Buildings.
2. ACI: 305 Hot Weather Concreting.
3. ACI: 306 Cold Weather Concreting.
4. ASTM: A 370 Mechanical Testing of Steel Products.
5. ASTM: A 615 Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
6. ASTM: C 31 Making and Curing Concrete Test Specimens in the Field.
7. ASTM: C 33 Concrete Aggregates.
8. ASTM: C 39 Compressive Strength of Cylindrical Concrete Specimens.
9. ASTM: C 42 Drilled Cores and Sawed Beams of Concrete, Obtaining and Testing.
10. ASTM: C 143 Slump of Hydraulic Cement Concrete.

11. ASTM: C 172 Sampling Freshly Mixed Concrete.
12. ASTM: C 1107 Packaged Dry, Hydraulic-Cement Grout (Non-Shrink).
13. ASTM: D 1556 Density of Soil in Place by the Sand-Cone Method.
14. ASTM: D 1557 Moisture-Density Relations of Soils Using 10 lb. Rammer and 18 in. Drop.
15. ASTM: D 2922 Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
16. ASTM: D 2937 Density of Soil In-Place by the Drive-Cylinder Method.
17. ASTM: E 1155 Determining Floor Flatness and Levelness Using the F-Number System
18. ASTM: F 609 Using a Horizontal Pull Slipmeter (HPS).
19. ASTM: F 1677 Using a Portable Inclineable Articulated Strut Slip Tester, (PIAST).
20. ASTM: F 1679 Using a Variable Incidence Tribometer, (VIT).
21. SSPWC: Standard Specifications for Public Works Construction ("Green Book").

1.06 SUBMITTALS

A. Procedure: In accordance with Division 01 Sections.

B. Shop drawings: Plans, elevations, sections, and details, including layout of components and accessories. Indicate dimensions, clearances required, utility service requirements, materials, and finishes.

C. Manufacturer's detailed technical materials data, including technical bulletins, drawings, guides, and manuals, as applicable to the work of this Project, for the following:

1. Admixtures.
2. Curing materials.
3. Joint materials.
4. Waterstops.
5. Metallic aggregate topping.
6. Nonshrink grout, including test data.

D. Certifications:

1. Cement mill test reports and certification.
2. Admixture certification, including chloride ion content.
3. Ready-mix batch plant tickets.
4. Reinforcing steel mill certifications.
5. Reinforcing steel welder's certifications.

E. Concrete mix designs: Submit, for approval, certified concrete mix designs for initial and any subsequent changes in mix designs.

1.07 PROJECT CONDITIONS

A. Existing conditions:

1. Do not conceal or cover any work until required tests and inspections have been performed and accepted.

B. Do not fabricate items which require fitting to other building elements or into building spaces, until dimensions have been verified at the site. Environmental requirements: Unless otherwise recommended by product or system manufacturer or reference specifications or standards, conform to the following:

1. Do not place concrete when the ambient temperature is 35°F or lower or is expected to go below that temperature within 24 hours.
2. Do not place concrete during rain that will cause surface damage to concrete.
3. Hot weather concreting procedures: In accord with ACI 305.
4. Cold weather concreting procedures: In accord with ACI 306.

C. Traffic control:

1. Maintain vehicular and pedestrian traffic control during concrete operations.
2. Provide flagmen, barricades, warning signs, and warning lights for movement of traffic and safety, and to cause the least interruption of work.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Concrete: In accord with SSPWC Section 201-1, Portland Cement Concrete, type as indicated on Drawings.

1. Cement: Conform to SSPWC Section 201-1.2.1.
2. Admixtures: Conform to SSPWC Section 201-1.2.4.
3. Fine aggregates: Conform to SSPWC Section 200 1.5.3
4. Coarse aggregates: Conform to SSPWC Section 200 1.4.
5. Design slumps and mix proportioning: SSPWC Sections 201-1.1.2 and 201-1.1.3 except as follows.
    a. Provide concrete which will develop the following minimum 28-day ultimate compressive strengths.
        1) Retaining walls and similar structural uses: 4000 psi.

B. Formwork: Wood or equivalent metal, conforming to SSPWC Section 303-1.3.

C. Reinforcement: Conform to SSPWC Section 201-2.

D. Curing materials: Liquid or equivalent sheet membrane, conforming to SSPWC Section 201- 4, except as specified herein.

E. Joint materials:

1. Construction joints: Preformed galvanized steel sheet or resawn wood.
2. Expansion joints: Premolded resilient filler, conforming to SSPWC Sections 201-3, except as specified herein.

F. Waterstops: Unless otherwise indicated on Drawings, provide extruded dumbbell type, spliced by thermal butt fusion.

G. Borrow material (for fill): Nonexpansive, predominantly granular material:

1. Particles less than 2 inches in any dimension;
2. Free of organic and inorganic debris;
3. Not more than 12 percemt by weight passing the No. 200 sieve.
4. Acceptable to a geotechnical engineer retained by Owner.

H. Non-shrink grout: Prepackaged, nonshrink, nonmetallic, natural aggregate grout conforming to ASTM C 1107, with minimum 28-day compressive strength of 5000 psi.

1. Hi-Flow or NS Grout by Euclid Chemical Company.
2. Five Star Grout by Five Star Products.
3. Master Flo 713 or 928 by Master Builders, Inc.

I. Integral mineral coloring pigments: Provide pure synthetic or natural mineral oxide colors as selected by Agency.

1. Chromix by L.M. Scofield Co., Longwood, FL, Los Angeles, CA.
2. Davis Colors, Beltsville, MD, Los Angeles, CA.
3. Lambco Colors by Lambert Corp. of Florida, Orlando, FL.
4. Landers-Segal Color Co., Inc., Passaic, NJ.
5. Solomon Colors, Springfield, IL.

PART 3 - EXECUTION

3.01 PREPARATION

A. Compact top 6 inches subgrade to 95 percent of the Modified Proctor maximum dry density.

B. Do not allow traffic over prepared subgrade.

C. Uniformly moisten subgrade at time concrete is placed. Uniformly apply water immediately prior to concrete placement.

D. Accurately trim to required elevations, allowing for full thickness concrete.

3.02 WALKS AND SLABS

A. Construct in accord with SSPWC Section 303-5, except finishing and curing of integral color concrete shall be as follows.

1. Finishing:
    a. Tamp freshly placed concrete with approved metal grid tampers not less than 12 inches by 12 inches in size so as to bring fines to top, then rod to uniform surfaces at required levels.
        1) Float and trowel finish as soon as surface becomes workable.
        2) Provide slopes as indicated on Drawings, or as directed by Engineer.
    b. During finishing maintain adequate surface moisture and reduce plastic shrinkage as recommended by integral color manufacturer.
        1) Immediately after fresh concrete has been brought to a flat surface,

a shiny film of moisture on top surface shall not be permitted to evaporate or as soon as the shiny surface disappears, it shall be restored and maintained until troweling.

2) Maintain surface moisture film as specifically recommended by integral color manufacturer applying evaporation retarder/finishing aids, frequent, light, fine spray applications of water rather than excessive wetting. Adjust extent of water spray in accord with temperature, humidity, and wind conditions.

c. Work concrete flatwork to achieve the following tolerances when measured in accord with ASTM E 1155.

1) Trowel finished surfaces: FF25/FL20 with minimum FF20/FL15.

2) Float and broom finished surfaces: FF20/FL17 with minimum FF15/FL10.

d. Surface finish textures:

1) Provide float, trowel, brush/broom, and/or abrasive-blasted surface textures to match Engineer-approved sample panels.

2) Perform slip resistance testing to ensure that slip resistance of exposed concrete walking surface finishes is maintained. Follow testing procedures required for slip resistance testing of mock-up sample panels.

2. Curing: Cure, harden, and seal colored concrete flat slabs with compound(s) recommended by manufacturer of integral color concrete pigments. Curing, hardening, and sealing compound(s) shall not discolor, lighten, darken, stain, or impart other unsightly characteristics to colored concrete and shall be compatible with Owner's maintenance sealer.

B. Dumpster and compactor equipment pads and similar heavy-duty use areas indicated on Drawings: Apply bonding agent as recommended by topping manufacturer. Mix and apply extra heavy-duty, metallic-aggregate topping in accord with manufacturer's recommendations; unless indicated otherwise, provide minimum 1 inch topping thickness.

3.03 CURBS AND GUTTERS

A. Construct concrete curbs, gutters, and other similar structures in accord with SSPWC Section 303-5, except finishing and curing of integral color concrete shall be as specified herein for walks and slabs.

3.04 SITE STRUCTURES

A. Construct retaining walls, catch basins, manholes, valve and sump pits, thrust blocks, ductbanks, and similar structures to conform to requirements of SSPWC Section 303-1, Concrete Structures.

1. Formwork: Conform to SSPWC Section 303-1.3.

2. Placing reinforcing steel: Conform to SSPWC Section 303.17.

3. Placing concrete: Conform to SSPWC Section 303-1.8.

4. Consolidating (mechanically vibrating) concrete: Conform to SSPWC Section 303- 1.8.4.

5. Waterstops:

   a. Install accurately in the formwork. Securely fasten in place as recommended by manufacturer to prevent displacement during concrete placement.

   b. Use full manufactured length to avoid joints as much as possible.

   c. Thermally weld all joints and intersections in accord with manufacturer's instructions. Joints shall develop 85 percent (minimum) of tensile strength of section.

6. Construction joints: Unless indicated otherwise on Drawings, keyed type, conforming to SSPWC Section 303-1.8.6 and as specified herein.

7. Expansion joints: Unless indicated otherwise on Drawings, premolded resilient filler, conforming to SSPWC Sections 303-1.8.6.

8. Form removal: Conform to SSPWC Section 303-1.4.

9. Finishing: Conform to SSPWC Section 303-1.9.

10. Curing: Conform to SSPWC Section 303-1.10.

B. Additionally construct thrust blocks, ductbanks, and similar concrete structures related to other Divisions of work, in accord with requirements specified in applicable Sections and as indicated on Drawings.

3.05 JOINTS

A. Construction (pour) joints:

1. Place construction joints at all breaks in concrete placement lasting more than 1 hour and at color changes.

2. Unless otherwise indicated on Drawings, key construction joints for slabs 6 inches or more in thickness, except at expansion joints.

B. Expansion joints: Construct expansion joints with preformed resilient filler compatible with joint sealant materials, including joint backing, specified in Division 32 Section "Concrete Paving Joint Sealants".

C. Control joints:

1. Place control joints in all exterior flat concrete work, and other locations as indicated on Drawings.

2. Where control joints are not indicated on Drawings, verify specific types and layout with Engineer prior to placing concrete. Size and shape of layout is dependent on specific areas, but do not space control joints farther apart than 10 feet o.c. in a square pattern (e.g., if a concrete walk is 4 feet wide, control joint should occur at equal spacing of approximately 4 feet o.c. along length).

3. Control joints may be one of two types, as indicated on Drawings: Saw-cut or hand- tooled.

   a. Saw-cut:

      1) Use at slabs on grade only. Make saw-cuts 1/8 inch wide. Do not cut through steel bar reinforcing. Depth of all saw-cuts shall not be less than 1/4 of slab thickness.

         2) Verify hardness condition of concrete before commencing

saw-cutting to ensure that saw will not fret, ravel, or spall edges of cuts nor dislodge aggregate. Use saw-cutting equipment appropriate for the hardness condition of concrete

b. Hand tooled: Make control joints with a "V" shaped jointing tool with rounded edges and a 3/4 inch deep keel.

c. Whether saw-cut or hand-tooled, accurately lay out areas and make control joints straight and true, with clearly defined angles.

4. Construction (pour) joints may be substituted for control joints where specifically approved by Engineer.

3.06 PROTECTION OF COMPLETED WORK

A. During curing period, protect concrete from damaging mechanical disturbances, water flow, loading shock, and vibration.

END OF SECTION

SECTION 32 15 40 STABILIZED NATURAL PAVEMENT

PART 1 – GENERAL

1.1 SUMMARY

A. Section includes:

1. Stabilized granite surfacing
2. Edging Materials

B. Related Work:

1. Section 32 1313: Site Concrete Work
2. Section 31 2200: Grading

1.2 REFERENCES

A. ASTM C136 – Sieve Analysis of Fin and Coarse Aggregates

B. ASTM D2419 – Sand Equivalent Value of Soils and fine Aggregates

C. "Greenbook" Standard Specifications for Public Works Construction

D. USP – U.S. Pharmacopeial Convention (1995)

1.3 SUBMITTALS

A. Submit in accordance with Division 1 specifications.

1. Manufacturer's product data sheet and installation instructions indicating that product complies with specifications for stabilized decomposed granite surfacing

B. Samples:

1. Decomposed granite or specified aggregate, 1 quart for review.
2. Sample color to be: Gold.

1.4 QUALITY ASSURANCE

A. Manufacturer and Installer specializing in manufacturing work of this section with a minimum of 5 years documented experience.

B. Obtain each type of decomposed granite surfacing from a single manufacturer.

1.5 MOCK-UP

A. Install minimum 3 feet x 3 feet section of stabilized decomposed granite surfacing including edging at location approved by Project Manager.

B. Project Manager to approve mock-up before proceeding with rest of stabilized decomposed granite installation.

C. Approved mock-up may remain as part of completed work.

1.6 DELIVERY, STORAGE AND HANDLING

A. Bagged Materials: Accept delivery of materials only in unopened and

undamaged containers bearing the brand name and manufacturer's identification.

B. Bulk Materials: Each load of decomposed granite surfacing material arriving at the job site in bulk shall be accompanied by a delivery ticket containing the following minimum information:

1. Quarry of origin
2. Amount, weight and type of material
3. Brand name and manufacturer's identification

C. Protect stabilized decomposed granite surfacing mix from contamination. Store under cover.

1.7 SITE CONDITIONS

A. Weather and Site Requirements:

1. Do not install decomposed granite surfacing when subbase is wet at saturated field capacity.
2. Surface of aggregate base or sub-base to be dry and sufficiently stable to be properly compacted.
3. Do not install natural pavement mix, or seal coat if the possibility of rain is forecast within four days following installation.
4. Install natural pavement mix and seal coat when ambient temperature is above 60 degrees Fahrenheit and overnight temperature is above 32 degrees.

PART 2 – PRODUCTS

2.2 ACCEPTABLE MANUFACTURERS AND SUPPLIERS

A. Specification is based on products by Gail Materials, Corona, CA; (951) 667-6106; www.gailmaterials.com. Equal products will be reviewed and considered.

B. Substitutions: Products by other manufacturers that comply with specifications will be considered in accordance with Division 1.

2.3 MATERIALS

A. Decomposed Granite.

1. Produce from naturally friable granite. Blends of coarse sand and rock dust are not acceptable.
2. Graduation in accordance with ASTM C136:

Sieve Size	Percent Passing
½"	100
3/8"	90 – 100
No. 4	50 – 100
No. 30	25 – 55
No. 100	10 – 20
No. 200	5 – 18

3. Sand Equivalent: 30 minimum in accordance with ASTM D2419.

B. Binder: Provide Natracil by Gail Materials or approved equal and complying with the following requirements.

1. Swell Volume: 35 ml/gm minimum in accordance with USP procedures.
2. 90% minimum shall pass a No. 40 mesh screen.

C. Factory Blending:

1. Mix decomposed granite and Natricil or equal stabilizer with a pub mill that includes a weigh-belt feeder.
2. Pedestrian Paths: Mix 12 lbs. of binder per 2000 lbs. of decomposed granite.

2.4 BASE COURSE MATERIAL

A. Comply with Green book Section 200-2, Untreated Base Materials for crushed aggregate base.

2.5 ACCESSORIES

A. Water: Free from contaminants that would discolor or be deleterious to stabilized decomposed granite surfacing.

B. Edging: Plastic.

C. Geosynthetic Fabric: comply with Green book Section 213-2, Geosynthetics.

PART 3 – EXECUTION

3.1 EXAMINATION

A. Examine grading and subsoil conditions. Do not proceed until conditions are acceptable.

B. Verification of General Conditions: Examine site and verify that conditions are suitable to receive work and that no defects or errors are present which would cause defective installation of product or cause latent defects in workmanship and function.

C. Sub grade: Review sub grade to verify that it has been graded to the correct grades and compacted as required.

D. Unsuitable conditions: Before proceeding with work, installing contractor to notify the Project Manager in writing of unsuitable conditions and conflicts.

3.2 PREPARATION

A. Protection of Existing Conditions:

1. Use every possible precaution to prevent damage to existing conditions to remain such as structures, utilities, irrigation systems, plant materials and paving on or adjacent to the site of the work.
2. Provide barricades, fences or other barriers as necessary to protect existing conditions to remain from damage during construction.
3. Do everything possible to protect all structures, utilities and existing plants to remain during the installation.
4. Submit written notification of conditions damaged during construction to the Project Manager.

B. Sub-grade Preparation:
1. Refer to Geo-technical report for sub-grade preparation prior to placement of fill or aggregate base. Refer to Geo-technical Report for sub-grade preparation prior to placement of fill or aggregate base.
2. Comply with Greenbook Section 301-10, Subgrade Preparation, if no Geo-technical Report is available.
3. Grade sub-grade with uniform slope between points where elevations are given. A requirement of the installation is that the pavement surface has a crown in the middle or 2% slope from one side to the other.
4. Use equipment of proper size and type to achieve grades required.
5. Grade sub-grade surface to within 0.05 foot of finish grade minus aggregate base and aggregate paving thickness.
6. Fill and compact any depressions and remove loose material to finish true to line and grade, presenting a smooth, compacted and unyielding surface, except where indicated otherwise.
7. Remove debris, loose dirt and other extraneous materials.
8. All proper 4 drainage design elements should be in place. Ditches, drains and drain pipes should be installed to assure protection of the pavement and base from cross flows of water. All water flow should be directed off of and away from the pavement and base.

C. Base Course Installation:
1. Comply with Greenbook Section 302-2 Untreated Base, if applicable.

D. Edging Materials:
1. Edging materials must be in place prior to the beginning of placing aggregate base or natural pavement.
2. Establish lines and levels, locate and lay out by instrumentation and similar appropriate means for paving finish grades.

3.3 INSTALLATION

A. Prior to installation, thoroughly presoak surface on which stabilized decomposed granite is to be placed.

B. Install in 2” maximum lift thickness and soak with sufficient water to activate Natracil or approved equal stabilizer, through entire depth of lift. Install the additional lifts and soak with sufficient water to activate Natricil or approved equal stabilizer as

required.

C. Grade and smooth to required elevations.

D. Compact: After +/- 4 hours, compact final lift with a three-five ton double or single static drum roller.

E. Minimum Compacted Thickness:

1. Pedestrian Paths: 3 inches

F. Surface shall follow overall contours of landscape. Flat areas shall be crowned for drainage. Slope minimum of 1% to drain away from structures.

G. Completed surface shall be of consistent quality and free of deleterious materials such as organic materials, nails, stones and loose material. Surface shall not have depressions or humps greater than ¼ inch in 10 feet.

3.4 FIELD QUALITY CONTROL

A. Material shall comply with manufacturers specifications.

3.5 PROTECTION

A. Do not allow traffic on stabilized decomposed granite surfacing for four (4) days after placement or until compacted stabilized granite has fully cured.

B. Protect stabilized decomposed granite surfacing form damage until Project completion. Repair damaged areas to match specified requirements.

3.6 MAINTENANCE & REPAIRS

A. Loose aggregate will appear on the surface over time which is a natural occurrence. If excessive aggregate over ¼ inches occurs, redistribute the stabilized decomposed granite over the entire surface, water thoroughly and re-compact with a minimum one ton drum roller. This process can be repeated as needed.

B. To repair, excavate damaged area leaving a minimum one inch depth of existing stabilized decomposed granite, water and scarify. Scarifying existing stabilized decomposed granite will prevent a cold joint layer between the existing stabilized decomposed granite and the newly imported pre-blended stabilized decomposed granite.

C. Add water to the pre-blended stabilized decomposed granite to activate. Apply moistened pre-blended stabilized decomposed granite to excavated area at or above finished grade.

D. Compact with a walk behind drum roller. Do not allow traffic on stabilized decomposed granite surfacing for one to two days after placement or until compacted stabilized decomposed granite has fully cured.

END OF SECTION

SECTION 33 05 28
UNDERGROUND UTILITIES MARKING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Underground warning tape for:

1. Electrical power duct banks.
2. Common user duct banks.
3. Potable and nonpotable water.
4. Reclaimed water.
5. Septic sewer force mains.
6. Compressed air.
7. Chilled water.
8. Irrigation mainline piping.

1.03 RELATED WORK SPECIFIED ELSEWHERE

A. Division 31 Section "Excavation and Fill for Utilities".

B. Division 33 Section “Site Water Distribution System”.

C. Division 33 Section “Septic Sewer System”.

1.04 QUALITY ASSURANCE

A. Reference specifications and standards:

1. ANSI: Z53.1 Safety Color Code for Marking Physical Hazards.

1.05 SUBMITTALS

A. Procedures: In accordance with Division 01 Sections.

B. Product data:

1. Manufacturer's detailed technical materials data, including technical bulletins, drawings, guides, and manuals, as applicable to the work of this Project.
2. For color coding of specific utilities not indicated on Drawings or not specified herein, submit samples of color coding tape markings for selection by Owner.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

A. Marking tape:

1. Empire Level Manufacturing Corporation (Thor Enterprises), Mukwonago, WI. Tel: (800) 558-0722.

2. Mutual Industries North, Inc., Philadelphia, PA. Tel: (215) 927-6000, (800) 523-

0888. 3. Reef Industries, Inc., Houston, TX. Tel: (713) 507.4250, (800) 231-6074.

4. Stranco Inc., Michigan City, IN. Tel: (219) 874-5221, (800) 348-3217.

5. T. Christy Enterprises, Inc. 655 E. Ball Road, Anaheim, CA. Tel: (714) 507-3300, (800) 258-4583.

2.02 MATERIALS

A. Marking tape: Reinforced or unreinforced type, 6 inches wide, inert, virgin resin, plastic film formulated for extended use underground, imprinted with an appropriate legend to define type of utility line it identifies.

1. Nondetectable: Minimum 4 mils overall thickness.

a. DuraTec or ShieldTec by Empire Level Manufacturing Corporation (Thor Enterprises).
b. Underground Tape (UT series) by Harris Industries, Inc.
c. Non-Detectable Underground Marking Tape (No. 17783) by Mutual Industries North, Inc.
d. Underground Warning Tape (PUWT-XXX series) by Stranco, Inc.
e. Underground marking tape (No. TA-ND-6-GI) 6 inches non-detectable green irrigation marking tape by T. Christy Enterprises.

2. Detectable: Double-lamination/sandwich with continuous aluminum core, minimum 5 mils overall thickness. Provide manufacturer's splice clips or other accessory materials to maintain conductivity throughout entire length of tape installation.

a. ThorTec or MagnaTec by Empire Level Manufacturing Corporation (Thor Enterprises).
b. Underground Tape (DU series) by Harris Industries, Inc.
c. Underground Detectable Tape (No. 17774) by Mutual Industries North, Inc.
d. Detect-A-Line Detectable Underground Warning Tape (PUWT-XXXD series) by Stranco, Inc.
e. Terra Tape Sentry Line 1350 by Reef Industries, Inc.

3. Color code: Black lettering on color backgrounds in accord with APWA/ULCC Uniform Color Code and ANSI Z53.1, except as follows.

a. Red: Electric power ductbanks other than high voltage (e.g., 12 kV) electric power ductbanks.
b. Yellow: Natural gas distribution and transmission.
c. Orange: Common user ductbanks.
d. Black or white lettering on blue background: Potable water systems.
e. Yellow lettering on purple background: Reclaimed water lines. Black

lettering on green background: Irrigation mainline piping reading "CAUTION IRRIGATION LINE BELOW".

PART 3 - EXECUTION

3.01 INSTALLATION

A. Marking tape:

1. Nondetectable tape: Install over metallic utility lines.
2. Detectable tape: Install over nonmetallic utility lines.
3. For trenches which contain only one utility line, install one marking tape directly on top of each utility line (at the 12 o'clock position), install one additional tape 12 inches above the centerline of the utility line, and install one additional marking tape 18 inches to each side of centerline of utility line, a total of four utility marking tapes for a single common utility line in a single trench.
4. For trenches in common which contain more than one utility line, install one marking tape directly on top of each utility line (at the 12 o'clock position), install one additional tape for the proper utility 12 inches above the center of the utility line, and one additional marking tape for each utility in the common trench, installed 18 inches to each side of the edge of each of the outboard utility lines, a total of 8 utility marking tapes for 2 utility lines in a single common trench; a total of 12 utility marking tapes for 3 utility lines in a single common trench; a total of 16 utility marking tapes for 4 utility lines in a single common trench, etc.

END OF SECTION

SECTION 33 10 00
SITE WATER DISTRIBUTION SYSTEM

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. On-site potable water, fire water and reclaimed water distribution systems, including connections to existing systems, sterilization, testing of water mains, and all appurtenances required for the complete systems. Contractor shall ensure all material in direct contact with water shall be NFF61 certified.

B. Systems design pressure is 125 psig.

1.03 RELATED WORK SPECIFIED ELSEWHERE

A. Division 03 Section "Cast-In-Place Concrete".

B. Section 84 of the Standard Specifications.

C. Division 31 Section "Excavation and Fill for Utilities".

D. Division 33 Section "Underground Utilities Marking".

1.04 REQUIREMENTS

A. Comply with all requirements of the governing authority, including:

1. No connection shall be made to potable, fire and industrial water lines without written approval from the governing authority.
2. When construction water is needed by Contractor, no connection to the existing main shall be used until an approved backflow prevention device is installed by Contractor.
3. Valves of existing public systems shall not be operated by any person other than Water Department personnel.
4. No connections will be allowed from new to existing water mains until pressure test has been accomplished.
5. All new potable water and/or fire systems shall be sterilized (chlorinated) by Contractor.

1.05 SUBMITTALS

A. Procedures: In accordance with Division 01 Sections.

B. Submit brochures and shop drawings with such promptness as will allow ample time for review and corrections procedures.

1. Approval will not relieve Contractor of the sole responsibility for the correctness of the work.

C. Shop drawings: Shop drawings and detailed descriptions for items which are not manufactured and which have to be specially fabricated for work of this Contract.

D. Product data: Give name or other identification of each item to be provided as part of work of this Contract. The assembled brochures shall show cuts and fully detailed descriptions of all manufactured items furnished.

1. Presentation: Arrange materials in the same sequence as the Specifications and mark each item in the lower right-hand corner with Section, Article, and Sub-Article number.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

A. Ductile Iron Pipe: US pipe as specified or equivalent by American.

B. Shut-off valves: Mueller as specified or equivalent by Clow, Dresser, Kennedy or Stockham.

2.02 MATERIALS AND METHODS

A. Water piping:

1. 4 inches and larger: Polyvinyl chloride (PVC) pipe in conformance with all requirements of AWWA C900, Class 200; use purple pigmented for reclaimed water.

2. 3 inches and smaller: Schedule 80 PVC conform to requirements of ASTM D 1785, Type 1, Grade 1.

B. Fittings:

1. For all ductile iron pipe and PVC pipe 4 inches and larger: Cement-lined ductile or cast iron, 250 lb.

a. Use tapped tees or flanged adapters at connections of copper piping to ductile iron or PVC piping.

2. For PVC pipe 3 inches and smaller: PVC socket fittings for solvent welding.

C. Joints for pipe and fittings:

1. PVC piping:

a. 4 inches and larger: Integral bell containing a lock-in ring and spigot.

1) Pipe joints shall be push on as specified in ASTM D 3139.
2) Provide each joint connection with an elastomeric gasket suitable for the bell or coupling installation.
3) Gaskets for push on joints for pipe shall conform to ASTM F 477.
4) Gaskets for push on joints and compression type joints or mechanical joints for connections between pipes and metal fittings, valves, and other accessories shall be as specified in AWWA C111/A21.11.

b. Poly Vinyl Chloride (PVC) Water Main Fittings shall be gray-iron or ductile iron conforming to AWWA C110/A21.10 or AWWA C153/A21.53 and shall have cement mortar lining conforming to AWWA C104/A21.4, standard thickness unless otherwise indicated on Drawings. Fittings shall be mechanical joints.

c. 3 inches and smaller: Solvent welded per manufacturers recommendations.

D. Flanges:

1. For ductile iron pipe: 125 lb., ductile or cast iron, threaded, ASTM A 126 and ANSI B16.1.
2. Gaskets: Non-asbestos type composition, 1/16 inch thick, equivalent to Garlock Style 3000.
3. Bolting materials: Carbon steel Heavy Hex bolts and nuts, ASTM A 307, Type B.

E. Valves, hydrants, and accessories:

1. Shut-off valves: Mueller as specified or equivalent by Clow, Dresser, Kennedy, or Stockham.

a. Valves 4 inches and larger: AWWA approved, 200 lb.

b. Valves 14 inches and larger: AWWA approved, 150 lb.

1) Buried: Mueller #A-2360-23, with 2-inch square operating nut, and mechanical joint ends provided with retainer glands as specified under paragraph "Joints" for ductile iron piping. Provide concrete support block under buried valve.

a) Provide Bingham and Tylor or equivalent by Alhambra foundry - cast iron adjustable type valve box with proper extension to 6 inches below bottom of grade and cast-iron collar and cover. Cast "WATER" in cover.

2) Above grade: Mueller #A-2380-6, with wheel handles and flanged ends.

c. Valves less than 4 inches size: Federal Specifications WW-V-54, Class A, Type III, bronze, double wedge, non-rising stem, screwed bonnet, 200 psi W.O.G. working pressure, stuffing box repackable under pressure, all parts renewable, ends as indicated.

2. Backflow preventers: Provide where indicated on the plans.

3. Pressure regulating valve: Pressure reducing, pressure sustaining and check valve. Size 8-inch, 125 lb. Class, flanged, ratings: Downstream 15 to 75 psi, upstream 20 to 200 psi, equivalent to G.A. Industries Figure No. 4700.

F. Pipe guards: Provide where indicated. Guards shall be 4-inch Schedule 40 galvanized steel pipe filled with concrete. Guards shall be 7 feet long, extending 4 feet above finished grade and set in a concrete footing (1 foot - 6 inches diameter by 3 feet - 6 inches deep).

G. Corrosion protection: All buried uncoated and/or otherwise unprotected valves, clamps, flanges, bolts, nuts, etc., shall be cleaned, primed and coated with a coal tar base protective coating (1/32 inch thick) equivalent to Carboline (Kop-Coat) Bitumastic 50. Apply in accord with manufacturer's instructions.

H. Pipe wrapping where indicated: Polyethylene wrap, ANSI A21.5 (AWWA C105) 8 mils thick.

PART 3 - EXECUTION

3.01 EXCAVATING, TRENCHING, BACKFILLING, AND COMPACTING

A. Perform in accord with requirements of Division 31 Section "Excavation and Fill for Utilities".

3.02 INSTALLATION

A. Coordinate the installation of this part of the work with the overall construction schedule.

B. Provide concrete thrust blocks at all buried fittings and stub ends on 4 inch and larger PVC lines, and as indicated on Drawings.

C. Repair all damaged lining according to AWWA C104 and according to

D. Connect to existing system where indicated.

E. Tests: In accord with the following:

1. Test entire system at 1.5 times system design pressure. Maintain test pressure for at least 4 hours or longer as directed by Owner to prove tightness without leaks.

F. Install pipes and fittings in accord with manufacturer's recommendations. Provide 30 inches cover from top of pipe to finish grade.

3.03 DISINFECTION

A. Thoroughly clean, chlorinate, drain, and flush all pipe, fittings, valves, and appurtenances which have been exposed to contamination by the construction, in accord with the AWWA Specification C601-68.

B. Owner should be notified 24 hr. in advance of disinfection of all new potable water lines.

1. Flush line prior to disinfection. Flushing shall produce minimum velocity of 2.5 feet per second in pipe.
2. Disinfect pipe using sodium hypochlorite to produce a dosage of 50 mg/l for a 24-hr. contact period.
3. Open and close all valves several times during disinfection period.
4. After 24-hour retention period, flush chlorinated water from the line until chlorine concentration of water leaving the main is no higher than that generally prevailing in the existing system, or less than 1.0 mg/l.
5. Provide corporation stop or similar connection and obtain sample for bacteriological analysis.
6. Repeat disinfection procedure until bacteriological analysis results are acceptable to Owner.

3.04 CLEANING

3.05 Restoration: Any settlement of pavement or backfill, or erosion over or in the trenches shall be replaced or repaired by Contractor and the surface brought to grade. Special precautions shall be taken to prevent storm water erosion of trenching. Storm water

culverts and structures shall be kept clean of mud, debris, and silt caused by the construction.

3.06 PIPELINE IDENTIFICATION

A. Provide in accord with Division 33 Section "Underground Utilities Marking".

END OF SECTION

SECTION 33 30 00
SEPTIC SEWAGE SYSTEM

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

A. Gravity septic sewerage collection system including:
   1. Gravity septic sewer pipe.
   2. Septic Tank.
   3. Distribution Box.
   4. Effluent Duplex Pump System.

1.03 RELATED WORK SPECIFIED ELSEWHERE

A. Division 03 Section "Cast-In-Place Concrete".

B. Division 31 Section "Excavation and Fill for Utilities".

C. Division 33 Section “Underground Utilities Marking”.

D. Division 33 Section “Site Water Distribution System”.

1.04 QUALITY ASSURANCE

A. Tests and inspections:

   1. Procedure: In accordance with Division 01 Sections.
   2. Required tests:

      a. After alignment tests have been completed, and before flows are allowed in the line, conduct leakage tests.

      b. Test entire system for exfiltration in presence of engineer. Limit leakage to 100 gallons per inch of pipe diameter per mile of length per 24 hours.

      c. Limit leakage to stated maximum limit, except that an allowance of an additional 10 percent of gallonage will be allowed for each additional 2 feet of head over a basic 2 feet minimum above all pipe soffits.

      d. Pay for all leakage tests and required repairs and reconstruction.

B. Reference specifications and standards shall include but are not limited to:
   1. California Code of Regulations
      a. Title 8, Industrial Relations
      b. Title 17, Public Health
      c. Title 19, Public Safety
      d. Title 21, Public Works

e. Title 24, Energy Regulations

2. California Building Code
3. California Mechanical Code
4. California Plumbing Code
5. Local Code and Ordinances
6. AASHTO: Specifications for Highway Bridges.
7. AASHTO: M 198 Joints for Circular Concrete Sewer and Culvert Pipe Using Flexible Watertight Gaskets
8. ASTM: A 48 Gray Iron Castings.
9. ASTM: A 746 (ANSI/AWWA C151/21.51) Ductile Iron Pipe.
10. ASTM: C 94 Ready-Mix Concrete.
11. ASTM: C 150 Portland Cement.
12. ASTM: C 443 Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets.
13. ASTM: C 478 Precast Reinforced Concrete Manhole Sections.
14. ASTM: C 923 Watertight Resilient Connectors for Manhole to Pipe Seal.
15. ASTM: D 1248 Polyethylene Plastics Molding and Extrusion Materials.
16. ASTM: D 1784 Rigid Polyvinyl Chloride (PVC) Compounds and Chlorinated Polyvinyl Chloride (CPVC) Compounds.
17. ASTM: D 2122 Determining Dimension of Thermoplastic Pipe and Fittings.
18. ASTM: D 2321 Underground Installation of Flexible Thermoplastic Sewer Pipes.
19. ASTM: D 2412 Determination of External Loading Characteristics of Plastic Pipe by Parallel-Plate Loading.
20. ASTM: D 3034 Type PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings.
21. ASTM: D 3212 Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals.
22. ASTM: F 477 Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
23. ANSI/AWWA: C105/A21.5 Polyethylene Encasement for Ductile-Iron Piping for Water and Other Liquids.
24. ANSI/AWWA: C111/A21.11 Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
25. ANSI/AWWA: C150/A21.50 Thickness Design of Ductile-Iron Pipe.
26. ANSI/AWWA: C151/A21.51 Ductile-Iron Pipe, Centrifugally Cast for Water or Other Liquids.

C. Allowable tolerances for manhole frames/drainage inlets and cleanouts:

1. Horizontal location: Within ±3 inches, in any direction, of horizontal location indicated on Drawings.
2. Vertical alignment: Not greater than 1/8-inch maximum tolerance for 6 feet of depth.

1.05 SUBMITTALS

A. Procedure: In accordance with Division 01 Sections.

B. Product data: Manufacturer's detailed technical materials, fabrication, and installation data, including technical bulletins, drawings, guides, and manuals, as applicable to the work of this Project.

C. Certifications: Manufacturer's certification that pipe and fittings have been inspected

and tested at the point of origin and are in compliance with specified requirements.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Pipe and fittings:

1. Solid Wall Polyvinyl Chloride (PVC) pipe and fittings for mainlines 15 inches and smaller: Conform to ASTM D 3034, SDR 26.
    a. Manufacture pipe from approved, Type 1, Grade 1, PVC 12454-C conforming to ASTM D 1784 and meeting requirements of ASTM D 2122, ASTM D 2412 and ASTM D 2729. Pipe shall have integral wall thickened bells or extruded couplings with gasket seals. Solvent weld joints will not be permitted.
    b. Pipe joints shall be gasket push-on type complying with ASTM D 3212 and ASTM F 477.
    c. Pipe shall be UL/FM approved.
    d. Fittings shall conform to the same specifications as pipe in which they are to be installed.
    e. Pipe shall be identified on the exterior of the pipe with the following information:
        1) Nominal pipe size and o.d. base.
        2) Material code designation number (i.e. 12454C).
        3) Dimension ratio number (i.e. SDR 35).
        4) Pipe Stiffness Designation (i.e. PS46).
        5) ANSI/ASTM Designation (i.e. D3034).
        6) Pipe manufacturer's name and production code.
2. Perforated Polyvinyl Chloride (PVC) pipe and fittings for mainlines 15 inches and smaller: Conform to ASTM D 3034, SDR 35.
    a. Manufacture pipe from approved, Type 1, Grade 1, PVC 12454-C conforming to ASTM D 1784 and meeting requirements of ASTM D 2122, ASTM D 2412 and ASTM D 2729. Pipe shall have integral wall thickened bells or extruded couplings with gasket seals. Solvent weld joints will not be permitted.
    b. Pipe joints shall be gasket push-on type complying with ASTM D 3212 and ASTM F 477.
    c. Pipe shall be UL/FM approved.
    d. Fittings shall conform to the same specifications as pipe in which they are to be installed.
    e. Pipe shall be identified on the exterior of the pipe with the following information:
        1) Nominal pipe size and o.d. base.
        2) Material code designation number (i.e. 12454C).
        3) Dimension ratio number (i.e. SDR 35).
        4) Pipe Stiffness Designation (i.e. PS46).
        5) ANSI/ASTM Designation (i.e. D3034).
        6) Pipe manufacturer's name and production code.

3. Prefabricated Septic Tank: Conform to County of Fresno Local Area Management Program (LAMP) Section 500 and the California Plumbing Code.
4. Distribution Box: Conform to County of Fresno LAMP Section 600 and the California Plumbing Code.
5. Duplex Effluent Pump System (Myers ME50S-21 or approved equal)

PART 3 - EXECUTION

3.01 INSTALLATION/PERFORMANCE

A. Excavating, trenching, backfilling, and compacting: In accord with Division 31 Section "Excavation and Fill for Utilities".

B. Pipe laying: Lay pipe as indicated on Drawings, as specified herein, and in compliance with applicable portions of ASTM D 2321.

1. Grade trench bottom to indicated elevation of pipeline and shape bottom to fit lower quadrant of pipe. Excavate holes at each bell hub such that pipe will be uniformly supported along entire length of barrel only.
2. No excavation for a leach line or leach bed shall be located within 5 feet of evidence of the high groundwater, in excess of ten feet from the natural existing ground surface, nor to a depth where sewage is capable of contaminating the underground water stratum that is usable for domestic purposes.
3. Pipe installation and jointing shall be in accord with pipe manufacturer's specifications and instructions for type of pipe used and applicable requirements specified herein. All pipe having a defective joint, bell, or spigot is unacceptable, shall be rejected, removed from site, and replaced with an acceptable unit.
4. Commence pipe laying in finished trench at lowest point, or from a point designated by Owner, and lay upgrade from point of connection with all bell ends forward.
5. Install pipe to homing mark on spigot. On field cut pipe, provide a homing mark on spigot end in accord with manufacturer's recommendations.
6. Maintain pipe alignment and joint closure until sufficient haunching and backfill is in place to adequately hold pipe in position.
7. Prevent foreign materials from entering pipe while it is being placed in trench. Do not place debris, tools, articles of clothing, or other materials in pipe at any time.
8. As each length of pipe is placed in trench, assemble joints and bring pipe to intended line and grade. Bed and secure pipe in place. When pipe laying is delayed for 10 min. or more, close open ends of pipe using a watertight plug or other approved means to ensure that absolute cleanliness is maintained inside pipe.
9. At penetrations of manhole and similar structures, smoothly cut penetrating ends of pipe parallel to interior surface of structure. Maximum interior protrusion of pipe shall be the minimum necessary for proper sealing of pipe connection to structure. Use resilient connector when indicated on Drawings.

C. Pipe jointing:

1. Pipe installation and jointing shall be in accord with pipe manufacturer's specifications and instructions for type of pipe used and applicable requirements specified herein.

2. Ensure that interior of pipe and jointing seal is free of sand, dirt, trash, or other foreign materials before installation. All pipe or fitting that has been installed containing dirt or other deleterious material shall be removed, cleaned, and re-laid. Extreme care shall be taken to keep bells of pipe free from sand, dirt, or rocks so that joints may be properly assembled without overstressing bells.

D. Prefabricated Septic Tank:

1. Manufactured or prefabricated septic tanks shall comply with approved applicable standards and be listed by a recognized listing agency. Prefabricated bituminous coated septic tanks shall comply with UL 70.

E. Dispersal Field:

1. Distribution lines shall be constructed, perforated high- density polyethylene pipe, perforated ABS pipe, perforated PVC pipe, or other approved materials, provided that approved openings are available for distribution of the effluent into the trench area.

2. Before placing filter material or drain lines in a prepared excavation, smeared or compacted surfaces shall be removed from trenches by raking to a depth of 1 inch and the loose material removed. Clean stone, gravel, slag, or similar filter material acceptable to the Agency, varying in size from 3/4 of an inch to 2 1/2 inches, shall be placed in the trench to the depth and grade required by County of Fresno LAMP Section 600. Drain pipe shall be placed on filter material in an approved manner. The drain lines shall then be covered with filter material to the minimum depth required by this section, and this material covered with untreated building paper, straw, or similar porous material to prevent closure of voids with earth backfill. No earth backfill shall be placed over the filter material cover until after inspection and acceptance.

3. Where two or more drain lines are installed, an approved distribution box of sufficient size to receive lateral lines shall be installed at the head of each dispersal field. The inverts of outlets shall be level, and the invert of the inlet shall be not less than 1 inch above the outlets. Distribution boxes shall be designed to ensure equal flow and shall be installed on a level concrete slab in natural or compacted soil. Install the distribution box a minimum o =f 5 feet away from disposal field.

3.02 FIELD QUALITY CONTROL

A. Alignment: Inspect septic sewerage lines to determine if displacement of pipe has occurred during backfilling and compaction.

B. Correct, at no additional cost, sections of piping that are deficient in material, alignment, grade, or joints.

END OF SECTION

SECTION 34 00 00
BID ITEM DESCRITPTIONS

The unit prices paid for the items listed in the Contractor's Proposal as defined herein shall be considered full compensation for furnishing all labor, materials, tools, and equipment, and doing all work involved in furnishing and installing the materials complete and in place, in accordance with the details shown on the Plans, as specified herein, and directed by the Engineer.

All incidental work which is neither shown on the Plans nor otherwise specified, and which is necessary to complete the improvements as shown on the Plans and as specified in the Contract Documents (defined in the Contract/Agreement), shall be furnished and installed as though such work were shown on the Plans or specified in the Contract Documents, and no additional compensation shall be allowed therefore.

The scope of work includes but is not limited to, each bid item listed in the Contractor's Proposal and as described in the following.

GENERAL

1. MOBILIZATION & DEMOBILIZATION

   The work under this item shall conform to the provisions of Section 01 71 13 "Mobilization, Site Maintenance, Demobilization" of these Specifications, the Standard Specifications and as directed by the Engineer.

   Payment for Mobilization, Demobilization, Insurance, Bonds, and Project Funding Signs will be made at the lump sum price.

2. JOB SITE MANAGEMENT

   This bid item is a lump sum bid item for the cost of all work involved with job site management and includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in spill prevention and control, material management, waste management, non-stormwater management, and dewatering and identifying, sampling, testing, handling, and disposing of hazardous waste resulting from your activities, as specified in the Section 14 of the Standard Specifications and these Special Provisions, and as ordered by the Engineer.

3. IMPLEMENT APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

   This bid item is a lump sum bid for review and implement a Storm Water Pollution Prevention Plan ("SWPPP") prepared by the Engineer, and includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in reviewing, implementing, maintaining, monitoring, inspecting, and removing water pollution control practices in accordance with the approved SWPPP as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

   This bid item shall be paid at the lump sum price bid. Payment will be prorated based on the percentage of contract work completed.

4. STATE WATER RESOURCES CONTROL BOARD NOTICE OF INTENT FILING FEE

   This bid item is specifically provided to reimburse the Contractor for payment of the NOI filing

fee charged by the SWRCB and paid by the Contractor after the Contractor has completed the NOI filing process started by the County. The amount paid for this bid item will be the fee only. No payment will be made for overhead or processing costs. Full compensation for any overhead and processing costs will be considered to be included in the various items of work, and no separate compensation will be made therefor.

The dollar amount shown in the Proposal is an estimate only and shall be included in each bidder's proposal. Payment for this bid item will be adjusted based on the actual fee paid. The provisions of Section 9-1.06 for increased or decreased quantities shall not apply to the "State Water Resources Control Board – Notice of Intent" bid item.

5. DEMOLITION, CLEARING, & GRUBBING

The work under this item shall conform to the provisions of Sections 02 41 13 "Site Demolition" and 31 10 00 "Site Clearing" of these Specifications.

The work shall consist of the removal and disposal of all existing surfaces, soil spoil, roots, stumps, limbs, buried logs, tree/bush pruning, concrete, asphalt concrete, aggregate base, buried trash, saw cutting of asphalt and concrete, excavation of asphalt, and all other obstructing materials encountered during the excavation and installation of the proposed improvements, as shown on the Plans in conformance with the provisions in these Specifications and as directed by the Engineer.

Payment for this item will be made at the lump sum price, and no additional payment will be made therefore.

<u>SITE PREPARATION & GRADING</u>

6. CONSTRUCTION STAKING

The work under this item shall conform to the provisions of Section 01 73 00 "Execution" of these Specifications and as directed by the Engineer.

Payment for this item will be made at the lump sum price. This includes full compensation for all labor, materials, tools, and equipment necessary for providing construction stakes and marks required for the completion of the work shown on the Plans. No additional payment shall be made therefore.

7. EARTHWORK (ROUGH AND FINE GRADING)

The work under this item shall conform to the provisions of Section 31 22 00 "Grading" of these Specifications and as directed by the Engineer.

Payment for this item will be made at the lump sum price. This includes full compensation for all labor, materials, tools, equipment, and for performing all work necessary for rough and fine grading including, but not limited to, all daylighting, construction of the playground mound, and privacy berms as shown on the Plans. No additional payment shall be made therefore.

BASES & SIDEWALK AT VARIOUS LOCATIONS

8. CONSTRUCT 6" THICK CLASS II AGGREGATE BASE

   This item shall conform to the Plans, these Specifications, and Section 26-1.02B "Class 2 Aggregate Base" of the 2024 Caltrans Standard Specifications.

   This item shall be paid for at the Contract unit price per cubic yard of placed material. Said price includes full compensation for furnishing all labor, materials, tools, equipment and for doing all the work involved in constructing the class II aggregate base complete and in place, as shown on the Plans and specified herein, including, but not limited to, the parking lot, ADA campsite parking areas, crosswalks leading to the various existing restrooms, decorative concrete crosswalks, and restroom. No additional payment will be made therefore.

9. CONSTRUCT 4" THICK CLASS II AGGREGATE BASE FOR PLAYGROUND EMBANKMENT MOUND

   This item shall conform to the Plans, these Specifications, and Section 26-1.02B "Class 2 Aggregate Base" of the 2024 Caltrans Standard Specifications.

   This item shall be paid for at the Contract unit price per cubic yard of placed material. Said price includes full compensation for furnishing all labor, materials, tools, equipment and for doing all the work involved in constructing the class II aggregate base complete and in place, as shown on the Plans and specified herein, including, but not limited to, embankment slide mound. No additional payment will be made therefore.

10. CONSTRUCT 4" THICK CONCRETE

    The work under this item shall conform to the provisions of Section 03 30 00 "Cast-In-Place Concrete" of these Specifications.

    Payment for this item shall be made per square footage. This includes full compensation for all labor, materials, tools, and equipment necessary to construct the sidewalk at the locations specified in the Plans including, but not limited to, the playgrounds and concrete transitions from the decorative reinforced concrete crosswalks to the stabilized dg paths. No additional payment shall be made therefore.

11. CONSTRUCT 6" THICK CONCRETE PADS AND SIDEWALK

    The work under this item shall conform to the provisions of Section 03 30 00 "Cast-In-Place Concrete" of these Specifications.

    Payment for this item shall be made per square footage. This includes full compensation for all labor, materials, tools, and equipment necessary to construct the concrete pads (including thickened sections) for all furnishings which includes, but not limited to, kiosks, benches, tables, cornhole game boards, as well as the group fire pit area, restroom perimeter sidewalk, and ADA campsites. The ADA campsite concrete pads shall serve as the surface on which the ADA fire rings and specific tables will be installed on. As such, there will not be separate concrete pads for these specific furnishings. No additional payment shall be made therefore.

PARKING LOT & ADA SITE CONCRETE IMPROVEMENTS

12. CONSTRUCT 6" THICK REINFORCED CONCRETE PAVEMENT

    The work under this item shall conform to the provisions of Section 03 30 00 "Cast-In-Place

Concrete" and Section 03 20 00 "Concrete Reinforcing" of these Specifications.

Payment for this item shall be made per square footage. This includes full compensation for all labor, materials, tools, and equipment necessary to construct the reinforced concrete pavement at the locations specified in the Plans including, but not limited to, the parking lot, ADA campsite parking areas, and the crosswalks leading to the various restrooms from the ADA campsites. No additional payment shall be made therefore.

13. INSTALL 5' LONG X 3' WIDE DETECTABLE WARNING SURFACE PANEL COMPLETE AND IN PLACE

Payment for this item shall be made per each surface panel required. This includes full compensation for all labor, materials, tools, and equipment to install the warning surface panels at the locations specified in the Plans. No additional payment shall be made therefore.

14. INSTALL 72" PRECAST CONCRETE WHEEL STOPS

Payment for this item shall be made per each concrete wheel stop and includes full compensation for all labor, materials, tools, and equipment required to install the wheel stops at the locations specified in the Plans. No additional payment shall be made therefore.

LANDSCAPING & DECORATIVE CONCRETE

15. PERFORM ALL LANDSCAPE CONSTRUCTION WORK

The work under this item shall conform to the provisions of Section 32 15 40 "Stabilized Natural Pavement", Section 31 22 00 "Grading", and Section 31 25 00 "Erosion and Sedimentation Controls" of these Specifications.

This item includes, but is not limited to, the construction of the stabilized California gold decomposed granite walking paths, path edging, stabilized California gold decomposed granite maze, the gathering and placement of river rock for the maze, construction of riprap swale, hydroseeding all exposed slopes and graded soils with California native seed mix, and the installation of landscaping fabric as shown on the Plans. This bid item excludes the Hiking Trail.

Payment for this item will be made at the lump sum price which includes full compensation for locating and placing river rocks, backfilling and compaction, hydroseeding, labor, materials, tools, and equipment necessary to complete the work. No additional payment shall be made therefore.

16. CONSTRUCT 6" THICK REINFORCED DECORATIVE CONCRETE CROSSWALKS

The work under this item shall conform to the provisions of Section 03 30 00 "Cast-In-Place Concrete" and Section 03 20 00 "Concrete Reinforcing" of these Specifications.

Payment for this item shall be made per square footage. This includes full compensation for all labor, materials, tools, and equipment necessary to construct the decorative reinforced concrete crosswalks at the locations shown on the Plans. No additional payment shall be made therefore.

HIKING TRAIL

17. CONSTRUCT HIKING TRAIL AND PLACE RIVER ROCK

Payment for this item will be made at the lump sum price which includes full compensation for, but not limited to, clearing the path, collecting and placing the river rock, compaction,

labor, materials, tools, and equipment necessary to complete the work. No additional payment shall be made therefore.

SITE FURNISHINGS

18. INSTALL 92" SMOOTH TOP PICNIC TABLE STANDARD LEGS (MODEL# 100S)

    Payment for this item shall be made per each "Outdoor Creations" picnic table, or approved equal, and includes full compensation for all labor, materials, tools, and equipment required to furnish and install the picnic tables at the locations specified in the Plans. No additional payment shall be made therefore.

19. INSTALL 96" SERVICE TABLE WIDE LEG (MODEL# 102W)

    Payment for this item shall be made per each "Outdoor Creations" service table, or approved equal, and includes full compensation for all labor, materials, tools, and equipment required to furnish and install the service table at the location specified in the Plans. No additional payment shall be made therefore.

20. INSTALL GROUP BBQ WITH ADJUSTABLE GRILL (MODEL# 3001AG)

    Payment for this item shall be made per each "Outdoor Creations" group bbq grill, or approved equal, and includes full compensation for all labor, materials, tools, and equipment required to furnish and install the bbq grills at the locations specified in the Plans. No additional payment shall be made therefore.

21. INSTALL ADA 30" X 17 3/8" HIGH, NON-ADJUASTABLE, SINGLE FLANGE, SINGLE WALL, PAINTED, FIRE RING, 23" HIGH DRAFT HOLES, WITH (2) STAPLES (MODEL# 11302-SP23)

    Payment for this item shall be made per each "Jamestown Advanced Products" ADA compliant fire ring, or approved equal, and includes full compensation for all labor, materials, tools, and equipment required to furnish and install the fire rings at the locations specified in the Plans. No additional payment shall be made therefore.

22. INSTALL GROUP FIRE PIT WITH STEEL LINER (4' DIAMETER) (MODEL# 304, 304SL)

    Payment for this item shall be made per each "Outdoor Creations" group fire pit, or approved equal, and includes full compensation for all labor, materials, tools, and equipment required to furnish and install the fire pit at the location specified in the Plans. No additional payment shall be made therefore.

23. INSTALL CORN HOLE GAME SET (BEAN TOSS)-2 PIECES (MODEL# 1510)

    Payment for this item shall be made per each "Outdoor Creations" corn hole board, or approved equal, and includes full compensation for all labor, materials, tools, and equipment required to furnish and install the corn hole boards at the locations specified in the Plans. No additional payment shall be made therefore.

24. INSTALL 72" CONTOUR BENCH (MODEL# 407)

    Payment for this item shall be made per each "Outdoor Creations" bench, or approved equal, and includes full compensation for all labor, materials, tools, and equipment required to furnish and install the benches at the locations specified in the Plans. No additional payment shall be made therefore.

25. INSTALL 14” X 83.5” BENCH WITH 203” RADIUS CURVE (MODEL# 404R203)

Payment for this item shall be made per each “Outdoor Creations” curved bench, or approved equal, and includes full compensation for all labor, materials, tools, and equipment required to furnish and install the benches at the locations specified in the Plans. No additional payment shall be made therefore.

26. RELOCATE EXISTING FIRE RINGS AS SHOWN ON THE PLANS COMPLETE AND IN PLACE

This bid item is a lump sum bid item that accounts for all work required in relocating the existing fire rings onsite and includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals necessary for reinstalling the fire rings at the locations specified on the Plans complete and in place. This includes, but is not limited to, removal and transport of fire rings, site preparation, concrete, and reinstallation ensuring a securely positioned and functional fire ring. No additional payment shall be made therefore.

PAVILION STRUCTURES

27. CONSTRUCT 30' X 40' X 8.5' RECTANGULAR GABLE SHELTER COMPLETE AND IN PLACE

The work under this item shall conform to the provisions of Section 10 73 60 “Site Shelters” of these Specifications.

Payment for this item shall be made per each structure and includes full compensation for all labor, materials, tools, equipment, and all work related to the furnishing and installation of the “ICON Shelter Systems Inc.” pavilions, at the locations specified in the Plans. This includes, but is not limited to, coordination with manufacturer, furnishing, assembling, installing all support structures, concrete footings, bolts and fittings, connections, and roofing. No additional payment shall be made therefore.

28. CONSTRUCT PAVILION CONCRETE PAD

The work under this item shall conform to the provisions of Section 03 30 00 “Cast-In-Place Concrete” of these Specifications.

Payment for this item shall be made per square footage. This includes full compensation for all labor, materials, tools, and equipment necessary to construct the concrete pads for the pavilions as shown on the Plans. The pavilion concrete pads shall serve as the surface on which the group BBQ grills will be installed on. As such, there will not be separate concrete pads for these specific furnishings. No additional payment shall be made therefore.

MULTI-AGE PLAYGROUND SITES

29. INSTALL PLAY STACK (MODEL# 4500-008) COMPLETE AND IN PLACE

Payment for this item shall be made per each and includes full compensation for all labor, materials, tools, and equipment required for the furnishing and installation of the “Columbia Cascade” play stack, or approved equal, as specified in the Plans. This includes, but is not limited to, installing all support structures, concrete footings, bolts and fittings, and connections. No additional payment shall be made therefore.

30. INSTALL 7FT EMBANKMENT SLIDE (MODEL# C-1650-71-EMB) AND TURF COMPLETE AND IN PLACE

Payment for this item shall be made in lump sum and includes full compensation for all labor, materials, tools, and equipment required for the furnishing and installation of the “Columbia

Cascade" slide, or approved equal, as specified in the Plans. This includes, but is not limited to, installing all support structures, concrete footings, bolts and fittings, connections, recycled plastic lumber nailer boards, asphalt concrete pad, fall pad, and turf. No additional payment shall be made therefore.

31. INSTALL LOG STEPPERS (MODEL# 1501-3) COMPLETE AND IN PLACE

    Payment for this item shall be made per each and includes full compensation for all labor, materials, tools, and equipment required for the furnishing and installation of the "Columbia Cascade" log steppers, or approved equal, as specified in the Plans. This includes, but is not limited to, installing all support structures, concrete footings, bolts and fittings, and connections. No additional payment shall be made therefore.

32. INSTALL AGE 2-5 LOG SCRAMBLE (MODEL# 4500-304) COMPLETE AND IN PLACE

    Payment for this item shall be made per each and includes full compensation for all labor, materials, tools, and equipment required for the furnishing and installation of the "Columbia Cascade" log scramble, or approved equal, as specified in the Plans. This includes, but is not limited to, installing all support structures, concrete footings, bolts and fittings, and connections. No additional payment shall be made therefore.

33. INSTALL AGE 5-12 LOG SCRAMBLE (MODEL# 4500-305) COMPLETE AND IN PLACE

    Payment for this item shall be made per each and includes full compensation for all labor, materials, tools, and equipment required for the furnishing and installation of the "Columbia Cascade" log scramble, or approved equal, specified in the Plans. This includes, but is not limited to, installing all support structures, concrete footings, bolts and fittings, and connections. No additional payment shall be made therefore.

34. CONSTRUCT 6" WIDE PLAYGROUND CONCRETE KEY COMPLETE AND IN PLACE

    The work under this item shall conform to the provisions of Section 03 30 00 "Cast-In-Place Concrete" and Section 03 20 00 "Concrete Reinforcing" of these Specifications.

    Payment for this item shall be made per linear footage. This includes full compensation for all labor, materials, tools, and equipment necessary to construct the concrete key as specified in the Plans. No additional payment shall be made therefore.

35. CONSTRUCT 12" THICK PLAYGROUND PLAY AREA WOOD FIBER SURFACING COMPLETE AND IN PLACE

    Payment for this item shall be made per square footage. This item includes full compensation for all labor, materials, tools, and equipment required for installing the wood fiber as shown on the Plans and as directed by the Engineer. This includes, but is not limited to, preparing and compacting the subgrade, furnishing and placing wood fiber, placing crushed gravel, and installing landscaping fabric. No additional payment shall be made therefore.

36. CONSTRUCT 6" CONCRETE RETAINING CURB

    The work under this item shall conform to the provisions of Section 03 30 00 "Cast-In-Place Concrete" and Section 03 20 00 "Concrete Reinforcing" of these Specifications.

    Payment for this item shall be made per linear foot. This includes full compensation for all labor, materials, tools, and equipment necessary to construct the concrete retaining curb for the playground, as specified in the Plans. No additional payment shall be made therefore.

SITE ELECTRICAL

37. CONSTRUCT ALL PARK SITE ELECTRICAL CONDUITS, WIRING, FIXTURE, PANELS, AND APPARATUSES COMPLETE AND IN PLACE

The work under this item shall conform to the provisions of Section 26 00 00 “Electric General Requirements” and Section 26 50 00 “Basic Materials and Methods” of these Specifications.

This item includes, but is not limited to, locating the point of connection as shown on the Plans and extending conduit to prefabricated restroom and picnic pavilions, pulling wire from existing electrical panel to the locations specified on the Plans, and installing all panels and apparatuses required.

Payment for this item will be made at the lump sum price which includes full compensation for trenching, pipe, backfilling and compaction, labor, materials, tools, and equipment necessary to complete the work. No additional payment shall be made therefore.

STRIPING, SIGNAGE, AND MARKINGS

38. SIGNAGE, STRIPING AND MARKINGS

Payment for this item will be made at the lump sum price which includes full compensation for all labor, materials, tools, and equipment necessary to complete the work specified on the Plans. No additional payment shall be made therefore.

HOSE BIBS

39. RELOCATE AND INSTALL SELF-CLOSING WATER HOSE BIBS COMPLETE AND IN PLACE

This item includes, but is not limited to, locating the points of connection and connecting to the existing water system, constructing concrete pads, installing pipe, redwood posts, and installing “Haws” self-closing faucet valves Model 6252EHLF, or approved equal, at the locations specified on the Plans.

Payment for this item will be made at the lump sum price which includes full compensation for trenching, pipe, backfilling and compaction, labor, materials, tools, and equipment necessary to complete the work. No additional payment shall be made therefore.

ASPHALT TREATMENT

40. CONSTRUCT POLYMER MODIFIED EMULSION (PME) CHIP SEAL

The work under this item shall conform to the provisions of Section 37-2.03 “Polymer Modified Asphaltic Emulsion Chip Seals” of the Special Provisions.

Payment for this item shall be made per square yard which includes full compensation for all labor, surface preparation, materials, and equipment required to complete the work. No additional payment shall be made therefore.

41. CONSTRUCT TYPE 'A' ASPHALT CONCRETE PAVEMENT SECTIONS AND PATCHES

The work under this item shall conform to the provisions of Section 39-2.02 “Type A Hot Mix Asphalt” of the Special Provisions.

This item includes, but is not limited to, removing existing asphalt concrete, compacting the

subgrade, and placing the new HMA as shown on the Plans.

This item shall be paid for at the Contract unit price per ton **up to the theoretical maximum**, additional tonnage will not be compensated. The theoretical maximum shall be measured and agreed upon by the County and the Contractor prior to commencing work. Said price includes full compensation for furnishing all labor, materials, tools, equipment and for doing all the work involved in constructing the asphalt concrete pavement sections, patches, digout repairs, and pothole repairs, Type 'A' complete and in place, as shown on the Plans. No additional payment will be made therefore.

BID ADDITIVES

42. BID ADDITIVE 1: CONSTRUCT TWO-POST TIMBER KIOSKS

Payment for this item shall be made per each "Romtec" timber kiosk, approved equal, or Contractor to provide his/her own material per plans and specifications and includes full compensation for, but not limited to, the construction of concrete footings, connections, bolts and nuts, all labor, materials, tools, and equipment required to furnish and install the timber kiosk at the location specified on the Plans. No additional payment shall be made therefore.

43. BID ADDITIVE 2 – INSTALL SOLAR-POWERED LIGHTED BOLLARDS (PLB SERIES)

Payment for this item shall be made per each "First Light Technologies" solar lighted bollard, or approved equal, and includes full compensation for all labor, materials, tools, and equipment required to furnish and install the solar lighted bollards at the locations specified in the Plans. No additional payment shall be made therefore.

44. BID ADDITIVE 2 – INSTALL RAB SCONCE LIGHTS FOR PAVILIONS

Payment for this item shall be made per each "RAB" sconce light, or approved equal, and includes full compensation for all labor, materials, tools, wiring, and equipment required to furnish and install the sconce lights at the locations specified in the Plans. No additional payment shall be made therefore.

45. BID ADDITIVE 3: CONSTRUCT SAND VOLLEYBALL COURTS COMPLETE AND IN PLACE

The work under this item shall conform to the provisions of Section 31 23 04 "Excavation and Fill for Structures" of these Specifications.

This item includes, but is not limited to, the installation of all "Sports Imports", or approved equal, posts, volleyball nets, post safety pads, boundary lines, all bolts, nuts and fittings, the construction of concrete footings, 6" wide concrete edging, import and installation of volleyball court sand, gravel, and the installation of landscaping fabric as shown on the Plans.

Payment for this item will be made at the lump sum price which includes full compensation for backfilling and compaction, labor, materials, tools, and equipment necessary to complete the work. No additional payment shall be made therefore.

46. BID ADDITIVE 4: CONSTRUCT 6" THICK REINFORCED BASKETBALL COURT CONCRETE

The work under this item shall conform to the provisions of Section 03 30 00 "Cast-In-Place Concrete" and Section 03 20 00 "Concrete Reinforcing" of these Specifications.

Payment for this item shall be made per square footage. This includes full compensation for

all labor, materials, tools, and equipment necessary to construct the reinforced concrete basketball court as specified in the Plans. No additional payment shall be made therefore.

47. BID ADDITIVE 4: INSTALL FIXED HEIGHT BASKETBALL HOOP

Payment for this item shall be made per each basketball hoop and includes full compensation for all labor, materials, tools, and equipment required to install the "MegaSlam Hoops" basketball hoops model FX72, or approved equal. This includes, but is not limited to, the installation of the anchor system, construction of concrete footings, and the installation of equipment. No additional payment shall be made therefore.

48. BID ADDITIVE 5 - CONSTRUCT POLYMER MODIFIED EMULSION (PME) CHIP SEAL

The work under this item shall conform to the provisions of Section 37-2.03 "Polymer Modified Asphaltic Emulsion Chip Seals" of the Special Provisions.

Payment for this item shall be made per square yard, which includes full compensation for all labor, surface preparation, materials, and equipment required to complete the work. No additional payment shall be made therefore.

49. BID ADDITIVE 6 - CONSTRUCT PREFABRICATED PUBLIC RESTROOM BUILDING MODEL# S-301 (SANTIAGO) COMPLETE AND IN PLACE

The work under this item shall conform to the provisions of Section 13 00 00 "Prefabricated Restroom" of these Specifications and the Manufacturer's Specifications.

This item includes, but is not limited to, the furnishing and installation of the "CXT Incorporated" Prefabricated Restroom, construction of 6 inch layer of crushed rock, the installation of all required water and sewer plumbing and plumbing fixtures pertinent to the restroom, connecting to the existing water service line, installing backflow prevention device and shut off valve, and installation of all electrical systems, as shown on the Plans.

Payment for this item will be made at the lump sum price which includes full compensation for locating and connecting to the existing water service line, all required trenching and pipe, backfilling and compaction, labor, materials, tools, and equipment necessary to complete the work. No additional payment shall be made therefore.

50. BID ADDITIVE 6 - CONSTRUCT SEPTIC SEWAGE SYSTEM COMPLETE AND IN PLACE

The work under this item shall conform to the provisions of Section 33 30 00 "Septic Sewage System" of these Specifications.

This item includes, but is not limited to, the installation of all required sewer plumbing and fixtures, installation of septic sewer cleanouts, installation of 2500 gallon septic tank, Construction of effluent pump system including the installation of the basin, duplex pump system, and control panel, installation of the distribution box, furnishing and installing silty sand fill, construction of mounded leach field, installation of perforated leach lines, drain rock, and connecting the system to the prefabricated restroom shown on the Plans.

Payment for this item will be made at the lump sum price which includes full compensation for connecting to the restroom, all required trenching and pipe, backfilling and compaction, labor, materials, tools, and equipment necessary to complete the work. No additional payment shall be made therefore.

State Requirements

Contract Number 24-24-PR

REQUIREMENTS FOR STATE-FUNDED CONSTRUCTION PROJECTS

General

The work will be financed in whole or in part with State funds, and therefore all of the State statutes, rules, regulations, and provisions applicable to work financed in whole or in part with State funds will apply.

In addition to the provisions in the Agreement, the Contractor shall comply with the following:

California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018 (Proposition 68)

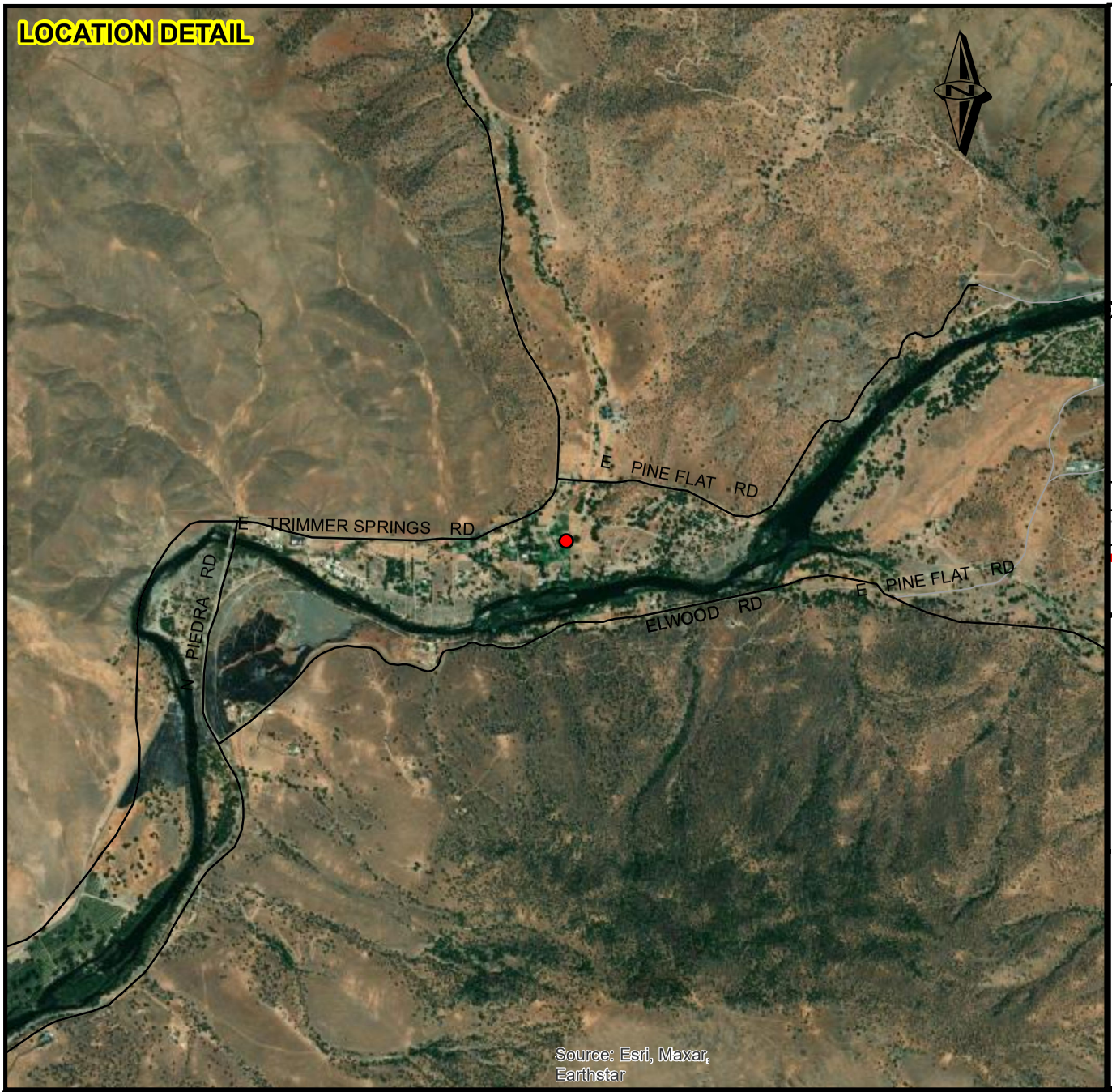
Under Proposition 68, contracted work must:

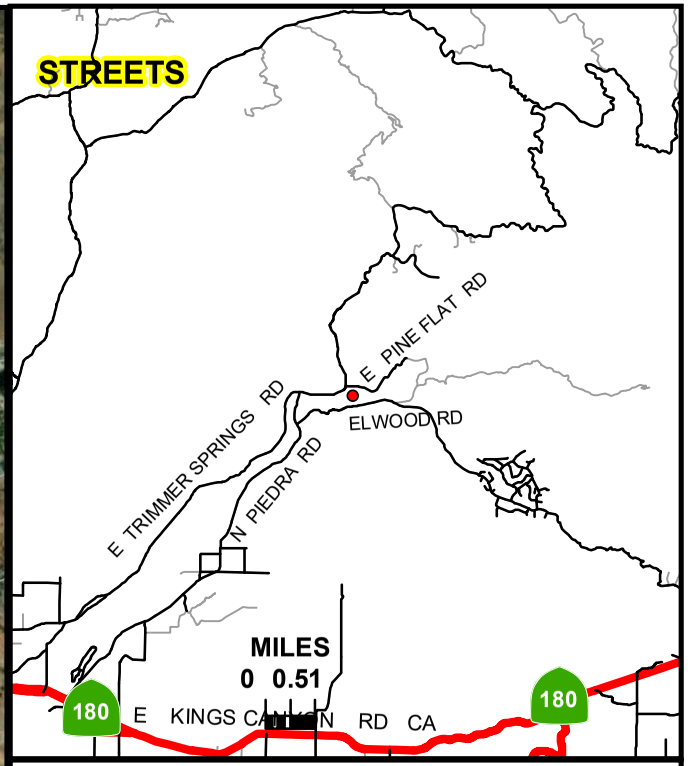
- Comply with the California Environmental Quality Act (Public Resources Code, Section 21000, et seq., Title 14, California Code of Regulations, Section 15000 et seq.).

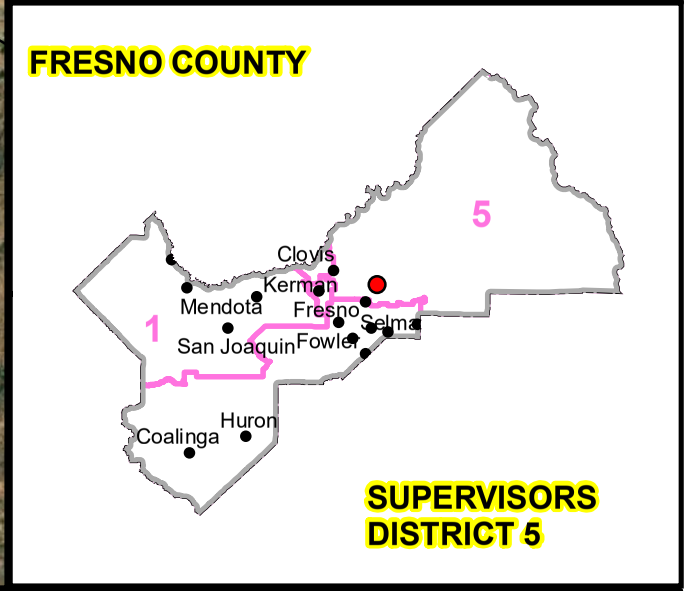
- Comply with all applicable current laws and regulations affecting the project, including, but not limited to, legal requirements for construction contracts, building codes, health and safety codes, and laws and codes pertaining to individuals with disabilities, including but not limited to the Americans With Disabilities Act of 1990 (42 U.S.C. §12101 et seq.) and the California Unruh Act (California Civil Code §51 et seq.)

Project Details

Contract Number 24-24-PR





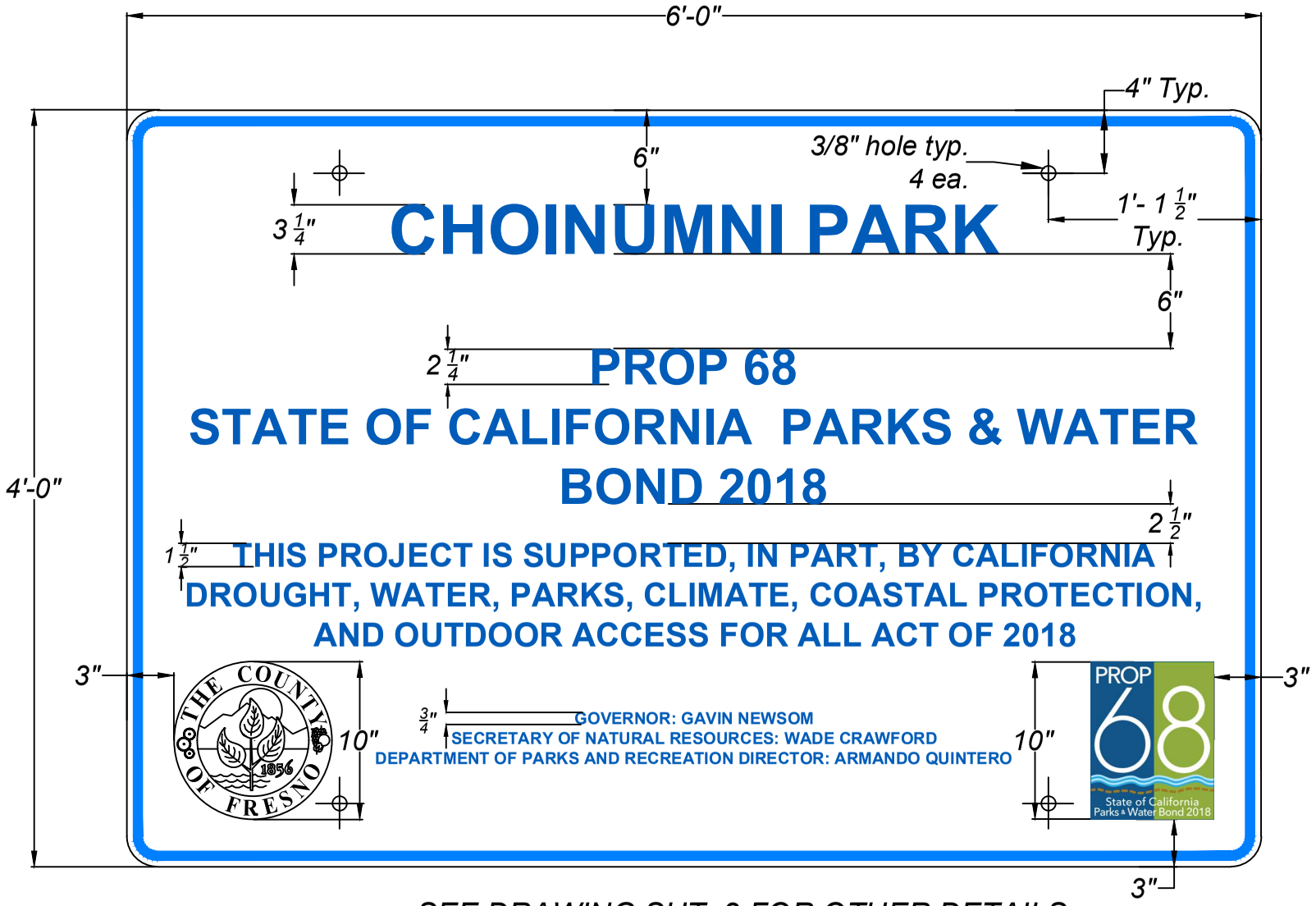


	DATE:	SCALE IN FEET
DESIGNED: G.H.	04/12/23	1,500 750 0 1,500 Feet
DRAWN: G.H.	04/12/23	

THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS & PLANNING

CHOINUMNI PARK IMPROVEMENTS



SEE DRAWING SHT. 2 FOR OTHER DETAILS

	DATE:	SCALE: NONE		DEPARTMENT OF PUBLIC WORKS AND PLANNING
DESIGNED: N/A		DRAWING NO. XX		CONSTRUCTION PROJECT FUNDING SIGN
DRAWN: R.O.J.				
CHECKED: S.A.				

WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER:

STORM WATER POLLUTION PREVENTION PLAN

for

Choinumni Park Improvements

RISK LEVEL: 2

ENCROACHMENT PERMIT NUMBER FOR CONTRACTOR:

Prepared for:

Fresno County Department of Public Works and Planning
2220 Tulare St, 6th Floor
Fresno, California 93721

Sebastian Artal, PE

(559)600-4109

Submitted by:

Project Site Address:

26501 Pine Flat Road, Sanger, CA 93657

(559)600-3004

Water Pollution Control (WPC) Manager:

Certification No:

Alternate WPC Manager:

Certification No:

QSP Delegate:

SWPPP Developed by:

Orfil Muniz, PE, QSD, Principal Civil Engineer

A&M Consulting Engineers

(559)429-4747

Certification No: 88165

SWPPP Date:

12/6/2024

Contents

SECTION 100 SWPPP CERTIFICATIONS AND APPROVAL

100.1 LRP Certification and Approval
100.2 Contractor and QSD SWPPP Certification
100.3 Amendments
100.3.1 SWPPP Amendments Certification and Approval
100.3.2 Amendment Log

SECTION 200 OBJECTIVES

SECTION 300 PROJECT AND CONTRACTOR INFORMATION

300.1 Project Description
300.2 Project Risk Level
300.3 Construction Sites Estimates
300.4 Vicinity and Site Map
300.5 Unique Site Features
300.6 Potential Pollutants from Site Features or Known Contaminants
300.7 Construction Support Activities
300.8 Pollutant Source Assessment
300.9 Pre-Construction Control Measures
300.10 Risk Level Determination

SECTION 400 CONTRACT INFORMATION

400.1 Contact Information for Responsible Parties
400.2 List of Subcontractor and Materials Suppliers
400.3 Training

SECTION 500 REFERENCES, OTHER PLANS, PERMITS AND AGREEMENTS

SECTION 600 DETERMINATION OF CONSTRUCTION SITE BEST MANAGEMENT PRACTICES

600.1 BMP Selection for Erosion and Sediment Control
600.1.1 Temporary Run-on Control BMPs
600.1.2 Soil Stabilization (Erosion Control)
600.1.3 Sediment Control
600.1.4 Tracking Control
600.1.5 Wind Erosion Control
600.2 BMP Selection for Construction Site Management
600.2.1 Non-Stormwater Site Management
600.2.2 Waste Management and Materials Pollution Control

600.3 Water Pollution Control Drawings
600.4 Water Pollution Control Schedule

SECTION 700 PROJECT SITE IMPLEMENTATION PROGRAM

700.1 Water Pollution Control Manager Responsibilities
700.2 Site Inspections
700.3 Weather Forecast Monitoring
700.4 Weather Monitoring

SECTION 800 CONSTRUCTION SITE VISUAL MONITORING PROGRAM

800.1 Site Visual Monitoring Inspection
800.1.1 Visual Monitoring Locations
800.1.2 Visual Monitoring Schedule
800.1.3 Visual Monitoring Procedures
800.1.4 Visual Monitoring Following-up and Tracking Procedures
800.1.5 Data Management and Reporting

SECTION 900 SAMPLING AND ANALYSIS PLAN

901 General SAP
902 Scope of Monitoring Activities
903 Monitoring Preparation
903.1 Qualified Sampling Personnel
903.2 Monitoring Supplies
903.3 Field Instruments
903.4 Testing Laboratory
904 Monitoring Strategy
904.1 Analytical Constituents
904.2 Potential Sampling Locations
904.3 Identification of Actual Sampling Locations
904.4 Sampling Schedule
905 Monitoring Strategy
905.1 Analytical Constituents
905.2 Potential Sampling Locations
905.3 Identification of Actual Sampling Locations
906 Sample Analysis
907 Quality Assurance/Quality Control
908 Data Management and Reporting
909 Data Evaluation
910 Change of Conditions

SECTION 1000 SAMPLING AND ANALYSIS PLAN FOR NON-VISIBLE POLLUTANTS

1001 Scope of Monitoring Activities

1002 Monitoring Preparation

- 1002.1 Qualified Sampling Personnel
- 1002.2 Monitoring Supplies
- 1002.3 Field Instruments
- 1002.4 Testing Laboratory

1003 Monitoring Strategy

- 1003.1 Analytical Constituents
- 1003.2 Sampling Locations
- 1003.3 Sampling Schedule

1004 Sample Collection and Handling

- 1004.1 Sample Collection Procedures
- 1004.2 Sample Handling Procedures
- 1004.3 Sample Documentation Procedures

1005 Sample Analysis

1006 Quality Assurance/Quality Control

1007 Data Management and Reporting

1008 Data Evaluation

1009 Change of Conditions

SECTION 1100 SAMPLING AND ANALYSIS PLAN FOR NON-STORMWATER DISCHARGES

1101 Scope of Monitoring Activities

1102 Monitoring Preparation

- 1102.1 Qualified Sampling Personnel
- 1102.2 Monitoring Supplies
- 1102.3 Field Instruments
- 1102.4 Testing Laboratory

1103 Monitoring Strategy

- 1103.1 Analytical Constituents
- 1103.2 Sampling Locations
- 1103.3 Sampling Schedule

1104 Sample Collection and Handling

- 1104.1 Sample Collection Procedures
- 1104.2 Sample Handling Procedures
- 1104.3 Sample Documentation Procedures

1105 Sample Analysis

1106 Quality Assurance/Quality Control

1107 Data Management and Reporting
1108 Data Evaluation
1109 Change of Conditions

SECTION 1200 SAMPLING AND ANALYSIS PLAN FOR STORMWATER pH AND TURBIDITY

1201 Scope of Monitoring Activities
1202 Monitoring Preparation
1202.1 Qualified Sampling Personnel
1202.2 Monitoring Supplies
1202.3 Field Instruments
1202.4 Testing Laboratory
1203 Monitoring Strategy
1203.1 Analytical Constituents
1203.2 Potential Sampling Locations
1203.3 Actual Sampling Locations
1203.4 Sampling Schedule
1204 Sample Collection and Handling
1204.1 Sample Collection Procedures
1204.2 Sample Handling Procedures
1204.3 Sample Documentation Procedures
1205 Sample Analysis
1206 Quality Assurance/Quality Control
1207 Data Management and Reporting
1208 Data Evaluation
1209 Change of Conditions

SECTION 1300 SAMPLING AND ANALYSIS PLAN FOR MONITORING REQUIRED BY THE RWQCB

1301 Scope of Monitoring Activities
1302 Monitoring Preparation
1302.1 Qualified Sampling Personnel
1302.2 Monitoring Supplies
1302.3 Field Instruments
1302.4 Testing Laboratory
1303 Monitoring Strategy
1303.1 Analytical Constituents
1303.2 Potential Sampling Locations
1303.3 Actual Sampling Locations
1303.4 Sampling Schedule

1304 Sample Collection and Handling
1304.1 Sample Collection Procedures
1304.2 Sample Handling Procedures
1304.3 Sample Documentation Procedures
1305 Sample Analysis
1306 Quality Assurance/Quality Control
1307 Data Management and Reporting
1308 Data Evaluation
1309 Change of Conditions

SECTION 1400 SAMPLING AND ANALYSIS PLAN FOR MONITORING OF ACTIVE TREATMENT SYSTEM

1401 Scope of Monitoring Activities
1402 Monitoring Preparation
1402.1 Qualified Sampling Personnel
1402.2 Monitoring Supplies
1402.3 Field Instruments
1402.4 Testing Laboratory
1403 Monitoring Strategy
1403.1 Analytical Constituents
1403.2 Potential Sampling Locations
1403.3 Actual Sampling Locations
1403.4 Sampling Schedule
1404 Sample Collection and Handling
1404.1 Sample Collection Procedures
1404.2 Sample Handling Procedures
1404.3 Sample Documentation Procedures
1405 Sample Analysis
1406 Quality Assurance/Quality Control
1407 Data Management and Reporting
1408 Data Evaluation
1409 Change of Conditions

SECTION 1900 RUSLE 2 REQUIREMENTS

1901 Surface Water Buffer
1902 TMDL RUSLE2 Modeling

SECTION 2000 POST CONSTRUCTION CONTROL PRACTICES

2000.1 Post-Construction Control Practices
2000.2 Post Construction Operation/Maintenance

SECTION 2100 SWPPP REPORTING REQUIREMENTS

2100.1 Record Keeping
2100.2 Stormwater Annual Report
2100.3 Discharge Reporting
2100.4 Regulatory Agency Notice or Order Reporting
2100.5 Illegal Connection/Illicit Discharge Reporting

SWPPP Attachments

Attachment A .....DOT CEM-2006SW Legally Responsible Person Authorization of Duly .....Authorized Representative

Attachment B .....Notice Of Intent (NOI)

Attachment C .....Risk Level Determination

Attachment D .....Vicinity Map and Site Map

Attachment E .....DOT CEM-20DCONSW Contractor Stormwater Personnel Training Records

Attachment F .....Other Plans/Permits/Agreements

Attachment G .....SWPPP Amendments

Attachment H .....Water Pollution Control Drawings (WPCDs)

Attachment I .....Water Pollution Control Schedule-NOT REQUIRED

Attachment J .....RUSLE2 Outputs-NOT REQUIRED

Attachment K .....SWPPP Notification Letter

Attachment L .....Contractor Submitted Plans

SWPPP Appendices

Appendix A ..DOT CEM-2008SW SWPPP/WPCP Amendment Certification and Acceptance Form

Appendix B .....DOT CEM-2009SW SWPPP/WPCP Amendments Log Form

Appendix C .....DOT CEM-2020SW QSP Delegate Training Form

Appendix D .....DOT CEM-2023SW Stormwater Training Record Form

Appendix E .....DOT CEM2024SW Stormwater Training Log Form

Appendix F .....DOT CEM-2030SW Stormwater Site Inspection Report Form

Appendix G .....NOT USED

Appendix H ...DOT CEM-2032SW Permanent Erosion Control Establishment (PECE) Report Form

Appendix I .....DOT CEM-2033SW Dewatering Operations Sampling Report

Appendix J .....DOT CEM-2035SW Stormwater Corrective Actions Summary

Appendix K .....DOT CEM-2051SW Storm Event SWPPP Sampling Log Form

Appendix L DOT CEM-2052SW Storm Event Sampling Or Receiving Water Monitoring Report .....Form

Appendix M .....DOT CEM-2061SW Notice of Discharge Report Form

Appendix N .....DOT CEM-2062SW Numeric Action Level Exceedance Report Form

Appendix O .....DOT CEM-2063SW Numeric Effluent Limitation Violation Report Form

Appendix P .....DOT CEM-2075SW Project Stormwater Annual Report Form

Appendix Q .....DOT CEM-2080SW Stormwater Change of Information Form

Appendix R .....DOT CEM-2090SW Notice of Termination and Final Inspection Report Form

SWPPP Files

File Category 20.01 .....Storm Water Pollution Prevention Plan (SWPPP)
File Category 20.02 .....Storm Water Pollution Prevention Plan Amendments
File Category 20.03 .....Water Pollution Control Schedule Updates
File Category 20.05 .....Notice of Intent
File Category 20.06 Legally Responsible Person Authorization of Duly Authorized Representative
File Category 20.10 .....Correspondence
File Category 20.21 .....Subcontractor Contact Information and Notification Letters
File Category 20.22 .....Material Suppliers Contact Information and Notification Letters
File Category 20.23 .....Contractor Personnel Training Documentation
File Category 20.31 .....Contractor Stormwater Site Inspection Reports
File Category 20.32 .....Caltrans Stormwater Site Inspection Reports
File Category 20.33 .....Site Visual Monitoring Inspection Reports
File Category 20.35 .....Corrective Actions Summary
File Category 20.40 .....Weather Monitoring Logs
File Category 20.46 .....Sampling and Analysis Plan
File Category 20.50 .....Non-Stormwater and Dewatering Discharge Sampling and Test Results
File Category 20.51 .....Non-Visible Pollutant Sampling and Test Results
File Category 20.52 .....Turbidity, pH Sampling and Test Results
File Category 20.53 .....Required Regional Water Board Monitoring Sampling and Test Results
File Category 20.54 .....ATS Monitoring Sampling and Test Results
File Category 20.55 .....Field Testing Equipment Maintenance and Calibration Records
File Category 20.61 .....Notice of Discharge Reports
File Category 20.62 .....Numeric Action Level Exceedance Reports
File Category 20.63 .....Numeric Effluent Limitation Violation Reports
File Category 20.80 .....Stormwater Annual Reports
File Category 20.90 .....Notice of Termination

SECTION 100
SWPPP Certifications and Approval

100.1 Legally Responsible Person Certification

The Local Agency's Legally Responsible Person (LRP) has authorized the RE to be the authorized Approved Signatory of the Local Agency for approving, signing, and certifying the Storm Water Pollution Prevention Plan (SWPPP) in conformance with Section IV.I of the Construction General Permit (CAS000002, Order No. 2022-0057-DWQ). The LRP authorization for the RE to be the Duly Authorized Representative is included as Attachment A. The SWPPP was developed by the Contractor and submitted for review and approval to the RE, pursuant to the contract Special Provisions, the Caltrans SWPPP / WPCP Preparation Manual, and the Caltrans Standard Specifications Section. The Contractor and Local Agency is responsible and liable at all times for compliance with applicable requirements of the Construction General Permit (CAS000002, Order No. 2022-0057-DWQ) for which compliance is ultimately determined by the Regional Water Quality Control Board (RWQCB), the State Water Resources Control Board (SWRCB), and/or the U.S. Environmental Protection Agency (USEPA). Include copies of the SWRCB-issued WDID Number and NOI form as Attachment B.

For Local Agency Use Only

RE's Approval and
Local Agency Certification of the
Stormwater Pollution Prevention Plan

Project Name: Choinumni Park Improvements

Local Agency Name: Fresno County Department of Public Works and Planning

I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

RE's Signature	Date
Sebastian Artal, PE	(559)600-4109
RE's Name	RE's Telephone Number

100.2 Contractor and QSD SWPPP Certification

Contractor's Certification of SWPPP

Project Name Choinumni Park Improvements

Encroachment Permit No.

I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Contractor's Signature	Date
Contractor's Name	Telephone Number
Contractor's Title	

QSD's Certification of SWPPP

Project Name: Choinumni Park Improvements

I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

	12/6/24
QSD's Signature	Date
Orfil Muniz, PE, QSD	(559)429-4747
QSD's Name	QSD's Telephone Number
Principal Civil Engineer	
QSD's Title	

100.3 Amendments

100.3.1 SWPPP Amendments Certification and Approval

This SWPPP is meant to be a "living document," therefore, updated and additional information is expected to be added to the SWPPP as the project progresses, including information regarding changes in the field that do not require an amendment, such as the following:

- Increasing or decreasing the quantity of BMPs in the field;
- Moving BMPs shown on the WPCDs to protect water quality during different phases of construction;
- Updating WPCDs to reflect actual site conditions; and
- Maintenance and repairs to BMPs.

This SWPPP shall be amended when one of the following applies:

1. Changes in work activities could affect the discharge of pollutants.
2. WPC practices are added as change order work.
3. WPC practices are added at the WPCM or QSD discretion.
4. Changes in the quantity of disturbed soil are substantial.
5. Objectives for reducing or eliminating pollutants in stormwater discharges have not been achieved.
6. You receive a written notice of a permit violation for the project from the RWQCB or other regulatory agency.
7. Changes are made to dewatering discharge WPC practices.
8. Changes are made to QSP delegate assignments or delegate functions.
9. Changes are made to the project inactive status.

Submit a revised SWPPP annually before September 15th, unless one of the criterion above applies (1-9), then it must be submitted timely.

Section 13 of Standard Specifications requires an annual winterization plan.The annual winterization plan must describe the preparation for the upcoming rainy season including:

1. Updated schedule
2. Materials and labor
3. Management of stormwater through the job site including:
   3.1. Run-on
   3.2. Run-off
3.3. Conveyance downslope
4. Management of areas within the job site including:
   4.1. Areas where work is suspended
   4.2. Areas of soil stabilization
   4.3. New disturbed soil areas
5. Changes to monitoring locations
6. Slope stabilization
7. Management of dewatering discharges

The following information shall be included in each amendment:

- Who requested the amendment;
- The location of proposed change;
- The reason for the change;
- The original BMP proposed, if any;
- The new BMP proposed;
- Any existing implemented BMP(s); and
- Annual winterization plan.

If the project becomes inactive, the QSD must prepare an inactive project plan to include:

- Updated schedule (when beginning or ending inactive project status);
- Site stabilization measures;
- Construction activity status;
- Revised site map with current site conditions;
- Include photographs showing stabilization WPC practices;
- Changes to WPC management and inspections; and
- The project only becomes inactive after the COI is approved after uploading in SMARTS. Once approved, the conditions for during inactive status must be followed.

Approved and certified amendments shall be inserted into the appropriate section or attachment of the SWPPP. All SWPPP amendments prepared by the WPC Manager or QSD and approved by the Contractor shall be accepted and certified by the LRP or Duly Authorized Representative. A blank copy of the DOT CEM -2008SW SWPPP/WPCP Amendment Certification and Acceptance Form is in Appendix A. For approved amendments, the signed SWPPP Amendment Certification and Approval form shall be attached to the SWPPP amendment.

A copy of each approved and certified amendment shall be inserted into Attachment G. All SWPPP amendments shall be listed in the SWPPP Amendment Log, available in Appendix B. The Amendment Log shall be kept in SWPPP File Category 20.02 and a copy shall be inserted into Attachment G.

The SWPPP will be completely revised if either the number of amendments or the amount of information contained in the amendments makes implementation of the SWPPP confusing, as determined by the RE, or the Contractor requests to revise the SWPPP based on planned changes in activities that would require a major SWPPP amendment.

100.3.2 Amendment Log

All approved and certified SWPPP amendments shall be shown on the SWPPP Amendment Log. A blank Amendment Log is available in Appendix B. The SWPPP Amendment Log shall include the following information:

- Amendment number;
- Amendment date;

- Brief description of the amendment;
- Name of individual requesting amendment; and
- Approval date.

All SWPPP amendment(s) prepared and approved as discussed in Section 100.3.1 shall be documented in the Amendment Log and kept in SWPPP File Category 20.02: Storm Water Pollution Prevention Plan Amendments.

SECTION 200
OBJECTIVES

This SWPPP has five (5) main objectives, which are listed below:

1. All pollutants and their sources, including sources of sediment associated with construction, construction site erosion, and all other activities associated with construction activity, are controlled.
2. Where not otherwise required to be under a California Regional Water Quality Control Board (RWQCB) permit, all non-stormwater discharges are identified and either eliminated, controlled, or treated.
3. Site BMPs are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from the construction activity to the best available technology (BAT) / best conventional technology (BCT) standard.
4. Calculations and design details for site run-on, as well as BMP controls, are complete and correct.
5. Stabilization BMPs designed to eliminate or reduce pollutants after construction is complete have been installed

This SWPPP was developed to conform to the required elements of the CGP (CAS000002, Order No. 2022-0057-DWQ) adopted by the SWRCB.

This SWPPP is designed to be a useful document for those who must implement the SWPPP on a daily basis in the field. The SWPPP is organized as follows:

Attachment H, Water Pollution Control Drawings, contain most of the information about the BMPs needed throughout the various stages of the project.

Attachment I, Water Pollution Control Schedule, outlines the time frame for implementing the various phases, and identifies work windows - NOT REQUIRED.

Section 300 describes the project information, including the pollutants and their sources.

Section 400 Contract Information, describes the key personnel, their organization and qualifications.

Section 500 is the references, including the Plans, Licenses, Agreements, and Certifications required for the project.

Section 600 Determination of Construction, describes the selection and application of the various BMPs used.

Section 700 through 1500 (as applicable) comprise the Construction Site Monitoring Program (CSMP).

Section 1900 includes RUSLE2 modeling requirements, and

Section 2000 includes the Post-Construction BMPs including their long-term maintenance.

This SWPPP is also a "living document" because updated and additional information is added to the SWPPP file categories as the project progresses, including:

- SWPPP Amendments;
- Subcontractor and Material Supplier Information;
- Contractor Personnel Training Documentation;

- Site Inspection Reports;
- Sampling and Analysis Results;
- Notice of Discharge Reports;
- Numeric Actions Level Exceedance Reports;
- Numeric Effluent Limitations Exceedance Reports;
- TMDL Exceedances; and

The SWPPP shall be readily available on site for the duration of the project.

SECTION 300
PROJECT INFORMATION

300.1 Project Description

This project is located in Choinumni Park which is found within Fresno County, east of the E. Trimmer Springs Rd. and Pine Flat Rd. intersection. This project aims to construct a variety of improvements for the park which includes the construction of two (2) picnic pavilions, ADA accessible campsites, multi-age playgrounds, concrete basketball court, two (2) sand volleyball courts, hiking trail and walking path, new restroom and onsite water treatment system, and the installation of a variety of furnishings including benches, tables, fire rings, timber kiosks, and barbeque grills. This project will also include the rehabilitation of the existing asphalt concrete pavement as well as repavement of certain sections as specified in the Plans. The Kings River runs adjacent to the propoerty's southern border.

300.2 Project Risk Level

The risk level assessment of the project site was calculated to be Risk Level 2. This risk level will determine the minimum level of BMPs that will be acceptable based on the project site and the project construction activities. The risk level is the basis for the minimum level of site-specific monitoring and reporting that will be required. The risk level is based on project duration, proximity to impaired receiving waters, and soil conditions. The Risk Level Determination is discussed in Section 300.10 and the calculations are included in Attachment C.

300.3 Construction Sites Estimates

The following are estimates of the construction site.

- Construction site area (acres): acres
- Percentage impervious area before construction:
- Runoff coefficient before construction:
- Percentage impervious area after construction:
- Runoff coefficient after construction:

Run-on from off-site areas anticipated: ◯ Yes ◉ No

Anticipated stormwater run-on flow rate to the construction site:

- Run-on flow rate (cfs): cfs

Anticipated drainage patterns following the completion of grading activities are shown on the WPCDs from Attachment H.

300.4 Vicinity and Site Map

The construction project vicinity map showing the project location, surface water boundaries, geographic features, construction site perimeter, and general topography, is located in Attachment D. The project contract plan Title Sheet provides additional detail regarding the project location and is also included in Attachment D.

The project is in Choinumni Park within Fresno County, east of the E Trimmer Springs Rd. and Pine Flat Rd. intersection. The park is located within a small valley surrounded by hilly terrain. The Kings River runs adjacent to the project site's southern border. No run-on is expected on the project site.

300.5 Unique Site Features

Project has Fill Material: ◉ Yes ○ No

Project has Native Material: ◉ Yes ○ No

Hydrologic Soil Group: ☑ A (high infiltration rate) ☐ B (moderate infiltration rate) ☐ C (slow infiltration rate) ☐ D (very slow infiltration rate)

Soil Erodibility: ☑ Slight ☐ Moderate ☐ Severe

Unique Features Onsite: ☐ Water Bodies ☐ Wetlands ☐ Endangered or Protected Species ☐ Environmentally Sensitive Areas ☐ Other ☑ None

RUSLE2 requirements: ☐ Surface Water Buffer ☐ TMDL Watershed

Proposed Site Operations: ☑ Demolition ☐ Dewatering ☐ Active Treatment System

The native soil primarily consists of sands, gravel and cobbles. Fill maaterial will be needed for the construction of the onsite water treatment system and will consist of silty sand. However, the purpose of the fill material is to improve percolation rates onsite and will be buried below the surface. Slight soil erodibility is expected.

There are a few limiting conditions that apply for the construction of the onsite water treatment system. The trenches must be over 5 feet above existing groundwater and bedrock. No groundwater or bedrock was encountered within 10 feet of subsurface soils investigation. These conditions shall be further mitigated with the construction of a mounded system to ensure satisfactory clearance from groundwater and bedrock. Percolation rates must also be slower than 5 minutes per inch, which will be addressed with the use of the silty sand fill.

The Kings River runs along the southern boundary of the project site.

300.6 Potential Pollutants from Site Features or Known Contaminants

Former site usage or known site contamination may contribute pollutants to stormwater discharges from the site. Based on information available for the project site, the following site usage and historical contamination has been determined:

This SWPPP does not have any past Industrial Operations.

This SWPPP does not have any Historic Contamination.

300.7 Construction Support Activities

The following are the identified construction support activities. Their location is/are shown in the WPCDs with appropiate BMPs:

- ☑ Staging areas
- ☑ Storage Areas (Material and Equipment)
- ☐ Excavated Material disposal Areas
- ☐ Borrow Areas
- ☐ Batch Plant for Concrete and HMA
- ☐ Crushing Plant for Rock and Aggregate
- ☐ Mobile Operations
- ☐ Other Facilities such as Haul Roads
- ☐ Offsite Drying Facilities for Drying Wastes Before Disposal

300.8 Pollutant Source Assessment

The following table contains a list of construction activities that have the potential to contribute pollutants, including sediment, to stormwater discharges. All potential pollutants, except sediment, and their locations shall be listed in this section, and, where possible, the locations shall be shown on the WPCDs from Attachment H. Details for controlling these pollutants using soil stabilization and sediment control BMPs are discussed in Sections 600.1.1 through 600.1.5. Potential non-storm water and waste management-related discharges are further described in Sections 600.2.1 and 600.2.2, respectively.

TABLE 300.8 ANTICIPATED CONSTRUCTION SITE ACTIVITIES WITH THE POTENTIAL TO DISCHARGE POLLUTANTS	
☑ Demolition	☑ Pavement Removal (asphalt concrete, concrete) ☐ Structure Demolition/Removal over or Adjacent to Water ☐ Building Demolition (Structure, HVAC, insulation) ☑ Hardscape Demolition (Parking areas, curbs, gutters, sidewalks)
☑ Earthwork	☑ Clearing and Grubbing ☑ Grading Activities ☑ Soil Import and Export ☑ Stockpiling ☑ Excavation ☐ Disturbance of Contaminated Soil ☐ Dewatering ☐ Temporary Stream Crossing ☑ Drainage Construction ☐ Dredging ☐ Pile Driving ☑ Utilities ☑ Line Flushing (hydrostatic test water, pipe flushing) ☑ Landscaping, Planting and Plant Maintenance, Amending of Soil and Mulching ☐ Material and Equipment Use over Water
☑ Masonry, Concrete, Asphalt Work	☑ Saw Cutting (cement and brick dust, saw cut slurries) ☑ Paving and Grinding

TABLE 300.8 ANTICIPATED CONSTRUCTION SITE ACTIVITIES WITH THE POTENTIAL TO DISCHARGE POLLUTANTS	
	☐ Concrete Placement (colored chalks) ☐ Concrete Curing (curing and glazing compounds) ☐ Concrete Finishing (surface cleaners) ☑ Concrete Waste Management
☑ Construction	☑ Paint Preparation, Painting, Stenciling, and Etching ☑ Material Use ☑ Material Delivery and Storage ☑ Adhesives (glues, resins, epoxy synthetics, caulks, sealers, putty, sealing agents and coal tars) ☐ Cleaning, Polishing (metal, ceramic, tile), and Sandblasting Operations ☑ Plumbing [solder (lead, tin), flux (zinc chloride), pipe fitting] ☑ Framing (sawdust, particle board dust and treated woods) ☑ Interior Construction (tile cutting, flashing, saw-cutting drywall, galvanized metal in nails and fences, and electric wiring)
☑ Equipment Use	☑ Vehicle and Equipment Cleaning ☑ Vehicle and Equipment Fueling ☑ Vehicle and Equipment Maintenance
☑ Waste Management	☑ Hazardous Waste Management ☑ Solid Waste Management (litter, trash, and debris) ☑ Liquid Waste Management (wash water) ☑ Sanitary Septic Waste Management (portable toilets, disturbance of existing sewer lines)

The QSD in coordination with the WPC Manager shall update the list of potential pollutants in accordance with onsite conditions, documenting all materials or equipment that have been received or produced onsite that are not designed to be outdoors and are potential sources of stormwater contamination.

Materials Management Plan

A list of construction materials that will be on site and have the potential to contribute pollutants, other than sediment, to stormwater runoff, which has been prepared to prevent or minimize the off-site discharge of those pollutants, are provided below.

The following stockpiles will be covered and bermed prior to likely precipitation events.

- All stockpiles throughout the entire project

The following materials will be kept off the ground or bermed and covered prior to likely precipitation events.

- Fuel
- Oil
- Grease
- Erosion Control Products

- Concrete
- Timber

The following materials will be properly stored according to Safety Data Sheet requirements.

- All materials shall be stored per manufacturer's requirements

The following dumpsters shall be covered prior to likely precipitation events.

- All dumpsters shall be covered daily and prior to rain events

The following areas will be inspected for leaks or spills prior to likely precipitation events.

- Portable Toilets
- Concrete Washout Areas
- Staging and/or Storage Area
- Overall Construction Site

Potential pollutants shall not be stored within 50 feet of stormwater conveyance features or concentrated flow paths. In addition, authorized non-stormwater discharges shall not be made within 50 feet of potential pollutants.

This section documents the pollutant assesment completed to identify constituents that might trigger sampling during storm events.

The following is additional text regarding the assessment of all potential pollutants and the material management plan to be implemented on site:

300.9 Pre-Construction Existing Stormwater Control Measures

The following are existing (pre-construction) control measures encountered within the project site:

- Existing Vegetation

Besides the existing terrain and vegetation, there are no known existing stormwater control measures present.

300.10 Risk Level Determination

The calculations for the risk level are included in Attachment C and include the Risk Determination Worksheet from Attachment D.1 of the CGP. The following is the Risk Level summary for the project:

Utilizing the Rainfall Erosivity Factor Calculator for Small Construction provided by the Environmental Protection Agnecy, an R-Factor of 3.73 was calculated. The K and LS factors were obtained utilizing GIS maps. After analyzing the GIS map for 303(d)-listed waterbodies created by the California Water Resources Control Board, it was determined that the project site does have the potential to discharge into the Kings River. Please see Attachment C for more details.

SECTION 400
CONTRACTOR INFORMATION

400.1 Contact Information for Responsible Parties

The following parties are responsible for this SWPPP:

Resident Engineer

Name:	**Sebastian Artal, PE**
Title:	**Resident Engineer**
Company:	**Fresno County Department of Public Works and Planning**
Address:	**2220 Tulare St, 6th Floor**
	Fresno, California 93721
Phone Number:	**(559)600-4109**
Emergency Phone Number (24/7)	**(559)290-0936**
Email address:	**sartal@fresnocountyca.gov**

Contractor

Name:	
Title:	**Contractor**
Company:	
Address:	
	,
Phone Number:	
Emergency Phone Number (24/7)	
Email address:	

Qualified SWPPP Developer (QSD)

Name:	**Orfil Muniz, PE, QSD**
Title:	**Principal Civil Engineer**

Certification Number:	**88165**
Company:	**A&M Consulting Engineers**
Address:	**220 N Locust Street**
	Visalia, California 93291
Phone Number:	**(559)429-4747**
Email address:	**orfil@am-engr.com**

Qualified SWPPP Developer (QSD) QSD who will conduct the QSD-required inspections

Name:

Title:

Certification Number:

Company:

Address:

,

Phone Number:

Email address:

WPC Manager

Name:

Title:

Certification:

Company:

Address:

, California

Phone Number:

Emergency Phone Number (24/7):

Email address:

Alternate WPC Manager

Name:

Title:

Certification:

Company:

Address:

, California

Phone Number:

Email address:

QSP Delegate

Name:

Title:

Company:

Address:

,

Phone Number:

Emergency Phone Number (24/7)

Email address:

Contractor Site Manager

Name:

Title:

Company:

Address:

,

Phone Number:

Emergency Phone Number (24/7)

Email address:

Erosion and Sediment Control Provider

Name:

Title:

Company:

Address:

,

Phone Number:

Emergency Phone Number (24/7)

Email address:

400.2 List of Subcontractor and Materials Suppliers

The following subcontractors will be working on this project:

1

SWPPP Responsibility:

2

SWPPP Responsibility:

Contact information for each subcontractor will be provided in the SWPPP Notification log in SWPPP File Category 20.21: Subcontractor Contact Information and Notification Letters. Contact information shall include subcontractor name, type of work performed, contact name, phone number and emergency telephone number (24/7).

The following materials suppliers will be delivering materials to the project site and must comply with pertinent SWPPP requirements:

1

2

Contact information for each material supplier will be provided in the SWPPP Notification log in SWPPP File Category 20.22: Material Supplier Contact Information and Notification Letters. Contact information shall include company name, type of material supplied, contact name and phone number.

All subcontractors and material suppliers shall be notified that the project is covered by the

- SWRCB-Order No. 2022-0057-DWQ, NPDES General Permit No. CAS000002, National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, (Construction General Permit).

Each subcontractor and material supplier shall also be notified that the project has a SWPPP and the pertinent water pollution control BMPs with which the subcontractor or material supplier must comply. If subcontractors or material suppliers are added during the project, appropriate notification that the project has a SWPPP and the pertinent water pollution control BMPs shall be given to the subcontractor or materials supplier prior to working or supplying materials on the project site.

A SWPPP Notification Letter shall be sent to all subcontractors and material suppliers. A sample notification letter and notification letter log is provided in Attachment K. A copy of SWPPP Notification Letters sent to subcontractors and material suppliers are in SWPPP File Category 20.21: Subcontractor Contact Information and Notification Letters or 20.22 Material Supplier Contact Information and Notification Letters. Notification letter logs and contact information are filed in SWPPP File Category 20.21: Subcontractor Contact Information and Notification Letters and File Category 20.22: Material Supplier Contact Information and Notification Letters.

400.3 Training

Orfil Muniz, PE, QSD, is a QSD and has developed the SWPPP for this project . The QSD meets the qualifications and certification requirements, of the CGP (CAS000002, Order No. 2022-0057-DWQ) based on:

- QSD #88165

The QSD has received the following training

- California Board of Professional Engineers, Land Surveyors, and Geologists Licensed QSD Training Program
- Construction General Permit Training

The QSD has the following SWPPP development experience.

- Has over 13 years experience in SWPPP/WPC development and implementation
- Has worked on over 30 WPCP and SWPPP projects

The QSD-field inspector, _____, is a QSD who will conduct the QSD-required inspections. The QSD meets the qualifications and certification requirements, of the CGP (CAS000002, Order No. 2022-0057-DWQ) based on:

-
-

The QSD-field inspector has received the following training.

-

-

The QSD-field inspector has the following SWPPP development experience.

-
-

_____, the Contractor's WPC Manager is at minimum a QSP. The WPC Manager for this project, meets the qualifications and certification requirements of the CGP (CAS000002, Order No. 2022-0057-DWQ) based on:

-
-

The WPC Manager has received the following training:

-
-

The WPC Manager has the following SWPPP development and implementation experience:

-
-

_____, the Alternate WPC Manager will be available as a substitute to the WPC Manager to ensure that: required BMPs are implemented; non-stormwater and stormwater visual observations and sampling and analysis are performed; BMP maintenance is completed; and weekly training is provided. The Alternate WPC Manager for this project, must meet the qualifications and certification requirements of Section VII, Training Qualifications and Certification Requirements, of the CGP based on:

-
-

The Alternate WPC Manager has received the following training:

-
-

The Alternate WPC Manager has the following SWPPP implementation experience:

-
-

_____, the primary QSP Delegate, will be available to assist the WPC Manager to ensure that required BMPs are implemented; non-stormwater and stormwater visual observations and sampling and analysis are performed; BMP maintenance is completed; and weekly training is provided. The primary QSP Delegate for his project has the following qualifications. The QSP Delegate for this project must be trained by the QSP and certified on the DOT CEM2020SW Qualified Stormwater Pollution Prevention Plan Practitioner (QSP) Delegate Training Record filed in Attachment C.

-
-

The primary QSP Delegate has received the following training:

-
-

The primary QSP Delegate has the following SWPPP impementation experience:

-
-

Additional QSP Delegates will be available to assist the WPC Manager on site. Their names are included in Table 400.3.1 listing their emails and phone numbers along with whether they have received the appropriate training.

TABLE 400.3.1
ADDITIONAL QSP DELEGATES

QSP Delegate Name	Email	Telephone No.	Training included in DOT CEM-2020SW Yes No
			○ ○

Ongoing, formal training sessions for individuals responsible for SWPPP development and implementation shall be selected from one of the following organizations.

- City of Los Angeles Storm Water Program
- County of Los Angeles Storm Water Program
- State of California RWQCB
- USEPA-sponsored training,
- Recognized municipal stakeholder organizations throughout California,
- Professional organizations and societies in the building and construction field
- Caltrans authorized vendors to provide the 8-hour WPC Manager training.

Contractor or subcontractor employees responsible for water pollution control BMP installation, maintenance and repair have received the following training:

-
-

Contractor and subcontractor employees shall be trained prior to working on the site in the following subjects:

- Water pollution control rules and regulations
- Implementation and maintenance for:
    - Temporary soil stabilization,
    - Temporary sediment control,
    - Tracking control,
    - Wind erosion control,
    - Material pollution prevention control,
    - Waste management, and
    - Non-stormwater management
- Identification and handling of hazardous substances
- Potential dangers to humans and the environment from spills and leaks or exposure to toxic or hazardous substances

Informal employee training shall include tailgate site meetings to be conducted weekly; tailgate meetings should address the following topics:

- Water pollution control BMP deficiencies and corrective actions;
- BMPs that are required for work activities during the week;
- Spill prevention and control;
- Material delivery, storage, use, and disposal;
- Waste management; and
- Non-stormwater management procedures.

A summary of formal and informal training of various personnel is shown in Attachment E. A copy of all training certificate(s) (e.g., Caltrans 8-Hour WPC Manager and CGP Training) for the WPC Manager, the Qualified SWPPP Developer, the Alternate WPC Manager, and the QSP Delegate in Attachment E.

Training records for project personnel shall be updated by completing the DOT CEM-2023SW Stormwater Training Record Form, available in Appendix D, and the DOT CEM-2024SW Stormwater Training Log Form, available in Appendix E. Records of training, with training certificates attached, when applicable, and the training log will be kept in SWPPP File Category 20.23: Contractor Personnel Training Documentation. Personnel training records, with required documentation attached and an updated training log, shall be submitted to the RE within five (5) days of completion of training.

Training information, consisting of the following items, shall be provided in the Stormwater Annual Report:

- Documentation of all training for individuals responsible for all activities associated with compliance with CGP
- Documentation of all training for individuals responsible for BMP installation, inspection, maintenance; and repair, and
- Documentation of all training for individuals responsible for overseeing, revising, and amending the SWPPP.

SECTION 500
REFERENCES, OTHER PLANS, PERMITS AND AGREEMENTS

The documents listed below are made a part of this SWPPP by reference:

- Standard Plans and Specifications, dated 2023;
- Contract Plans and Special Provisions for Contract No. 24-24-PR, dated December 5, 2024, prepared by A&M Consulting Engineers, Inc;
- SWRCB-Order No. 2022-0057-DWQ, NPDES General Permit No. CAS000002, National Pollution Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated With Construction and Land Disturbance Activities (Construction General Permit);
- RWQCB Basin Plan *Water Quality Control Plan for the Tulare Lake Basin, Third Edition (May 2018);*
- *Caltrans Statewide Storm Water Management Plan* (SWMP), dated May 2024;
- *Caltrans SWPPP/WPCP Preparation Manual,* dated October 2016;
- *Caltrans Construction Site Monitoring Program Guidance Manual;* August 2013

SECTION 600
DETERMINATION OF CONSTRUCTION SITE BEST MANAGEMENT PRACTICES

600.1 BMP Selection for Erosion and Sediment Control

The Contractor shall control construction site erosion through the implementation of effective erosion and sediment control measures in accordance with the CGP. The Contractor and the WPC Manager shall develop a schedule that includes the sequencing of construction activities and the implementation of effective erosion control BMPs while taking local climate (rainfall, wind, etc.) into consideration, thereby reducing the amount and duration of soil exposed to erosion by wind, rain, runoff, and vehicle tracking. The SWPPP schedule shall: describe when work activities will be performed that could cause the discharge of pollutants in stormwater; describe the water pollution control practices associated with each construction phase; and identify the soil stabilization and sediment control practices for all disturbed soil areas.

Additional erosion and sediment control BMPs may be required in other locations on the project site as work progresses in order to prevent sediment from leaving the construction site. These measures shall be determined by the Contractor and the WPC Manager in the field. As long as the water pollution control measures consist of additions to the BMPs already selected in the approved SWPPP, then these additional measures do not require a SWPPP amendment and the WPC Manager shall simply show the additional measures on the WPCDs. If erosion control or sediment control BMPs must be changed because of field conditions or because they are determined to be ineffective, the SWPPP must be amended. Once deemed necessary, corrective actions/design changes to the SWPPP shall be reviewed and signed by the WPC Manager, implemented, as required by Standard Specification 13-1.03A, immediately unless a longer period is authorized (but cannot be authorized longer than required by the CGP: implemented within 72 hours of identification and completed as soon as possible thereafter). Immediate corrective action is required for numeric action level (NAL) exceedances including ceasing dewatering operations. Routine BMP maintenance or the implementation of an additional quantity of a BMP included in the SWPPP as recommended by the WPC Manager does not require an amendment to the SWPPP.

An effective combination of erosion (soil stabilization) and sediment control BMPs shall be implemented and maintained during the project. The following principles shall be followed to the maximum extent practicable to control erosion and sedimentation in disturbed areas at the site, please see Sections 600.1.1-600.2.2.

Effective soil cover shall be provided for: inactive areas, finished slopes, open spaces, utility backfill, and any other area that is deemed necessary throughout the duration of the project.

A more concise listing of the BMP control measures to be implemented and maintained at the project site are denoted in the BMP selection tables in the following sub-sections.

600.1.1 Temporary Run-on Control BMPs

TABLE 600.1.1

TEMPORARY RUN-ON CONTROL BMPs						
CONSTRUCTION BMP ID NO.(1)	**BMP NAME**	**MIN REQUIRE-MENT (2)**	**CONTRACT BID ITEM**	**BMP USED**		**IF A MINIMUM REQUIREMENT BUT NOT USED, STATE REASON**
				Yes	No	
□□□1	Scheduling	☐	☐	○	◉	
□□□2	Preservation of Property/ Preservation of Existing Vegetation	☐	☐	○	◉	
□□□□	Earth Dikes / Drainage Swales & Lined Swales	☐	☐	○	◉	
□□□10	Outlet Protection / Velocity Dissipation Devices	☐	☐	○	◉	
□□□11	Slope Drains	☐	☐	○	◉	
□□□12	Streambank Stabilization	☐	☐	○	◉	
□□□□	Temporary Check Dam	☐	☐	○	◉	
□□□□	Fiber Rolls	☐	☐	○	◉	
□□□□	Temporary Gravel Bag Berm/Earthen Berm	☐	☐	○	◉	
□□□□	Temporary Sandbag Barrier	☐	☐	○	◉	
ALTERNATIVE BMPs USED(3) ○ □□□ ◉ □□						

□□□□□□
□1□□□□□□M□□d□□□□□□□□□□□□□□□□1□□□□□□□□□□□□□□r□□□□□□□□□□□r□□□ □□□□□□□□□□□□□□□□□

600.1.2 Soil Stabilization (Erosion Control)

Soil stabilization, also referred to as erosion control, consists of source control measures that are designed to prevent soil particles from detaching and becoming transported in stormwater runoff. Soil stabilization BMPs protect the soil surface by covering and/or binding soil particles. This project will incorporate SWPPP/WPCP Preparation Manual minimum temporary soil stabilization requirements, temporary soil stabilization measures required by the contract documents, and other measures selected by the Contractor.

Sufficient soil stabilization materials will be readily availiable or maintained on site to ensure that active areas can be stabilized prior to precipitation. The quantity of materials on site will vary depending on whether the site is in remote area, and how readly available the materials are. Sufficient crews and equipment will be available or on call to install the quantities necessary for prevention of discharges of sediment-laden or other pollutants from the construction site. This includes implementation requirements for active and inactive areas that require deployment before the onset of rain.

The following soil stabilization BMP selection table indicates the BMPs that shall be implemented to control erosion on the construction site. Temporary soil stabilization BMPs are shown on the WPCDs from Attachment H. Any details for temporary soil stabilization BMPs are shown in Attachment H.

TABLE 600.1.2
TEMPORARY SOIL STABILIZATION BMPs

CONSTRUCTION BMP ID NO.(1)	BMP NAME	MIN REQUIRE-MENT (2)	CONTRACT BID ITEM	BMP USED		IF A MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				Yes	No	
□□□1	Scheduling	☐	☐	○	◉	
□□□2	Preservation of Property/ Preservation of Existing Vegetation	☑	☑	◉	○	
□□□3	Temporary Hydraulic Mulch (Bonded Stabilized Fiber Matrix)	☐	☐	○	◉	
□□□3	Temporary Hydraulic Mulch (Polymer Stabilized Fiber Matrix)	☐	☐	○	◉	
□□□□	Temporary Erosion Control (With Temporary Seeding)	☐	☐	○	◉	
□□□□	Temporary Soil Stabilizer	☐	☐	○	◉	
□□□□	Temporary Erosion Control (Straw Mulch with Stabilizing Emulsion)	☐	☐	○	◉	
□□□□	Temporary Erosion Control Blanket (On Slope)	☐	☐	○	◉	

□□□□□00□3

□□□	Temporary Erosion Control Blanket (In swale or ditch)	☐	☐	○	◉	
□□□	Temporary Cover (Geotextiles and Mats)	☐	☐	○	◉	
□□□	Temporary Mulch (Wood)	☐	☐	○	◉	
□□□	Earth Dikes / Drainage Swales & Lined Swales	☐	☐	○	◉	
□□10	Outlet Protection/ Velocity Dissipation Devices	☐	☐	○	◉	
□□11	Slope Drains	☐	☐	○	◉	
□□12	Streambank Stabilization	☐	☐	○	◉	
ALTERNATIVE BMPs USED (3) ○ □□□ ◉ □□						

□ □□□□□
□1 □□□ □□□□M□d□□□□□□□□□□□□□□□□1□□□□3□□□□□□□□r□□□□□□□□□□r□□ □□□□□□□□□□□□□□□□□

Sediment control BMPs will be installed at all appropriate locations along the site perimeter and at all operational internal inlets to storm drain systems at all times.

Throughout the duration of the project, temporary sediment control materials, will be maintained on site for implementation in event of predicted rain, or the need for rapid response to failures or emergencies, in conformance with other Caltrans requirements, and as described in the SWPPP. This includes implementation requirements for active areas and inactive areas before the onset of rain.

The following sediment control BMP selection table indicates the BMPs that shall be implemented to control sediment on the construction site. Temporary sediment control BMPs are shown on the WPCDs from Attachment H. Any details for temporary sediment control BMPs are shown in Attachment H.

TABLE 600.1.3
TEMPORARY SEDIMENT CONTROL BMPs

CONSTRUCTION BMP ID NO.(1)	BMP NAME	MIN REQUIRE-MENT (2)	CONTRACT BID ITEM	BMP USED		IF A MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				Yes	No	
□□□1	Temporary Silt Fence	☑	☑	◉	○	
□□□1	Reinforced Silt Fence	☐	☐	○	◉	
□□□2	Temporary Sediment Basin	☐	☐	○	◉	
□□□3	Temporary Sediment Trap/Curb Cutback	☐	☐	○	◉	
□□□□	Temporary Check Dam	☐	☐	○	◉	
□□□□	Fiber Rolls	☑	☑	◉	○	
□□□□	Temporary Gravel Bag Berm/Earthen Berm	☐	☐	○	◉	
□□□□	Street Sweeping	☑	☑	◉	○	
□□□□	Temporary Sandbag Barrier	☐	☐	○	◉	
□□□□	Temporary Straw Bale Barrier	☐	☐	○	◉	

□□□□□00□□

SC-10	Temporary Drain Inlet Protection	☐	☐	○	◉	
SC-11	Compost Stock	☐	☐	○	◉	
SC-12	Flexible Sediment Barrier	☐	☐	○	◉	
ALTERNATIVE BMPs USED(3) ○ Yes ◉ No						

[illegible]:
(1) [illegible] M[illegible]d[illegible] [illegible] 1 [illegible]-[illegible]. [illegible]r[illegible] [illegible] exist [illegible]r[illegible]d[illegible] [illegible]d[illegible]r[illegible] [illegible]r[illegible]d[illegible] [illegible]t [illegible] [illegible]r[illegible] [illegible]M[illegible]M[illegible]r[illegible]r[illegible]d[illegible]r[illegible]d[illegible]
(2) M[illegible] [illegible] r[illegible]r[illegible] [illegible]r[illegible]ase d[illegible] [illegible]A[illegible]ch [illegible]ent D[illegible]
(3) [illegible]se [illegible]r[illegible]M[illegible] will [illegible]r[illegible]r[illegible]r[illegible]t [illegible]e R[illegible]

The following includes the list of BMPs along with a detailed explanation of their installation, implementation, and scheduling of maintenance for each BMP that will be incorporated into the project:

- SC-1: Temporary Silt Fence

  Silt fences are to be installed down slope of exposed soil areas. The Water Pollution Control Drawings provide a guide of where the silt fence is to be placed. The silt fence to be used shall comply Standard Plan No. T51 from the 2023 Caltrans Standard Plans. When setting up a silt fence around temporary stockpiles, it must be set up all around the stockpile at a distance of approximately 3 ft away from the toe of the stockpile, see Standard Plan No. T51 from the 2023 Caltrans Standard Plans. The silt fence is to be inspected daily.

- SC-5: Temporary Fiber Rolls

  Fiber rolls are to be used around temporary stockpiles and privacy berms. The rope used to fasten the fiber roll must be 1/4 inch in diameter and biodegradable, the wood stakes must be untreated fir, redwood, cedar, or pine and cut from sound timber. Fiber roll Type 2 is to be installed prior to commencing work and fiber roll Type 1 can be used around temporary stockpiles as needed, see Standard Plan No. T56 from the 2023 Caltrans Standard Plans.

- SC-7: Street Sweeping

  Street sweeping is to occur on paved roads at construction entrance and exit locations and onsite paved areas during activities that require street sweeping. Activities that require street sweeping include, but are not limited to: clearing and grubbing, earthwork, trenching, paving, and structure construction activities, when vehicles are entering and leaving the job site, after soil-disturbing activities, and after observing off-site tracking of material. Sweeping is to occur within 1 hour if sediment or debris is observed during the activities mentioned above that require sweeping. Sweeping is to occur within 24 hours if sediment or debris is observed during any other activity that does not require sweeping. To avoid excessive street sweeping, it is recommended to designate a limited number of entry/exit locations for the site and instruct personnel to only use those locations. Street sweeping waste is to be disposed of in accordance with Section 13-7.02 of the 2023 Standard Specifications.

600.1.4 Tracking Control

Tracking control BMPs are be implemented to reduce sediment tracking from the construction site onto private or public roads. This project will incorporate SWPPP/WPCP Preparation Manual minimum temporary tracking control requirements, temporary tracking control measures required by the contract documents, and other measures selected by the Contractor.

The following tracking control BMP selection table indicates the BMPs that shall be implemented to reduce sediment tracking from the construction site onto private or public roads. Temporary tracking control BMPs are shown on the WPCDs from Attachment H. Any details for temporary tracking control BMPs are shown in Attachment H.

TABLE 600.1.4
TEMPORARY TRACKING CONTROL BMPs

CONSTRUCTION BMP ID NO.(1)	BMP NAME	MIN REQUIRE-MENT (2)	CONTRACT BID ITEM	BMP USED		IF A MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				Yes	No	
□□□	Street Sweeping	☑	☑	◉	○	
□□1	Temporary Construction Entrance	☑	☑	◉	○	
□□2	Stabilized Construction Roadway	☐	☐	○	◉	
□□3	Temporary Entrance / Outlet Tire Wash	☐	☐	○	◉	
ALTERNATIVE BMPs USED(3) ○ □□□ ◉ □□						

□ □□□□□
□1 □□□ □□□M□d□□□□□□□□□□□□□□□□1□□□□3□□□□□□□□r□□□□□□□□□r□□ □□□□□□□□□□□□□□□□□

- TC-1: Temporary Construction Entrance

  To avoid excessive street sweeping, it is recommended to designate a limited number of entry/exit locations for the site and instruct personnel to only use those locations. Temporary Construction Entrance (Type 1) can be used at this project site. Type A rock should be used and must comply with Section 13-7.03B (2) of the Standard Specifications. Before installing the temporary entrance/exit, the following preparatory work is required: remove vegetation and clear debris, grade the ground to a uniform plane, remove sharp objects that could damage the fabric, compact the top 1.5 feet of soil to at least 90% relative compaction. When installing the temporary entrance/exit, follow these procedures: place the fabric along the length of the entrance/exit, overlap fabric ends by at least 12 inches, cover the fabric with rock within 24 hours, spread the rock over the fabric in the direction of traffic, and keep a 6-inch layer of rock over the fabric to prevent damage from the spreading equipment. If a sump is used, it must be installed within 20 feet of the temporary entrance/exit. For more guidance on how to install the temporary construction entrance, see Standard Plan No. T58 from the 2023 Caltrans Standard Plans.

600.1.5 Wind Erosion Control

Wind erosion control BMPs will be implemented to prevent sediment from leaving the construction site. This project will incorporate SWPPP/WPCP Preparation Manual minimum temporary wind erosion control requirements, temporary wind erosion control measures required by the contract documents, and other measures selected by the Contractor.

The following temporary wind erosion control BMP selection table indicates the BMPs that shall be implemented to reduce wind erosion at the construction site. Temporary wind erosion control BMPs are shown on the WPCDs from Attachment H.

TABLE 600.1.5
TEMPORARY WIND EROSION CONTROL BMPs

CONSTRUCTION BMP ID NO.(1)	BMP NAME	MIN REQUIRE-MENT (2)	CONTRACT BID ITEM	BMP USED		IF A MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				Yes	No	
□ □□1	Wind Erosion Control	☑	☑	◉	○	
□□ □1	Temporary Construction Entrance	☑	☑	◉	○	
□□ □2	Stabilized Construction Roadway	☐	☐	○	◉	
□□□□	All Soil Stabilization Measures included in Section 600.1.2	☐	☐	○	◉	
ALTERNATIVE BMPs USED(3) ○ □□□ ◉ □□						

The following includes the list of BMPs along with a detailed explanation of their installation, implementation, and scheduling of maintenance for each BMP that will be incorporated into the project:

- WE-1: Wind Erosion Control

  Wind erosion control can be achieved by applying water in the surrounding area where earthwork will be performed. Water is to be used as necessary and should not be applied in an excessive manner such that it causes runoff or causes tracking onto public roads. Implementing BMP WM-3 "Stockpile Management" can also achieve wind erosion control. Stockpiles can be covered with a temporary cover and surrounded with a linear sediment barrier. The conservation of water is important, and the application of water should be in accordance with Section 10-4 and 10-5 of the 2023 Standard Specifications.

- TC-1: Temporary Construction Entrance

  To avoid excessive street sweeping, it is recommended to designate a limited number of entry/exit locations for the site and instruct personnel to only use those locations. Temporary Construction Entrance (Type 1) can be used at this project site. Type A rock should be used and must comply with Section 13-7.03B (2) of the Standard Specifications. Before installing the temporary entrance/exit, the following preparatory work is required: remove vegetation and clear debris, grade the ground to a uniform plane, remove sharp objects that could damage the fabric, compact the top 1.5 feet of soil to at least 90% relative compaction. When installing the temporary entrance/exit, follow these procedures: place the fabric along the length of the entrance/exit, overlap fabric ends by at least 12 inches, cover the fabric with rock within 24 hours, spread the rock over the fabric in the direction of traffic, and keep a 6-inch layer of rock over the fabric to prevent damage from the spreading equipment. If a sump is used, it must be installed within 20 feet of the temporary entrance/exit. For more guidance on how to install the temporary construction entrance, see Standard Plan No. T58 from the 2023 Caltrans Standard Plans.

600.2 BMP Selection for Job Site Management

Construction job site management shall consist of controlling potential sources of water pollution before they come in contact with stormwater systems or watercourses. The Contractor shall control material pollution and manage waste and non-stormwater discharges at the construction site by implementing effective handling, storage, use, and disposal practices.

600.2.1 Non-Stormwater Site Management

Non-stormwater discharges into storm drainage systems or waterways, which are not authorized under the Caltrans Permit or authorized under a separate NPDES permit, shall be prohibited. The selection of non-stormwater BMPs is based on whether construction activities with a potential for non-stormwater discharges will be conducted, as discussed in the Materials Management Plan and in Section 600.2.2. This project will incorporate SWPPP/WPCP Preparation Manual minimum non-stormwater pollution control requirements, non-stormwater pollution temporary wind erosion control measures required by the contract documents, and other measures selected by the Contractor.

The following non-stormwater control BMP selection table indicates the BMPs that shall be implemented to prevent non-stormwater discharges from construction activities conducted at the project site. Non-stormwater pollution control BMPs are shown on the WPCDs from Attachment H.

TABLE 600.2.1
TEMPORARY NON-STORMWATER POLLUTION CONTROL BMPs

CONSTRUCTION BMP ID NO.(1)	BMP NAME	MIN REQUIRE-MENT (2)	CONTRACT BID ITEM	BMP USED		IF A MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				Yes	No	
□□□1	Water Control and Conservation	☑	☑	◉	○	
□□□2	Dewatering(3)	☐	☐	○	◉	
□□□3	Paving, Sealing, Sawcutting, and Grinding Operations	☑	☑	◉	○	
□□□□	Temporary Stream Crossing (3)	☐	☐	○	◉	
□□□□	Clear Water Diversion (3)	☐	☐	○	◉	
□□□□	Illegal Connection and Illegal Discharge Detection Reporting	☑	☑	◉	○	
□□□□	Potable Water / Irrigation	☐	☐	○	◉	
□□□□	Vehicle and Equipment Cleaning	☑	☑	◉	○	
□□□□	Vehicle and Equipment Fueling	☑	☑	◉	○	
□□□10	Vehicle and Equipment Maintenance	☑	☑	◉	○	
□□□11	Pile Driving Operations	☐	☐	○	◉	
□□□12	Concrete Curing	☐	☐	○	◉	
□□□13	Material and Equipment Used Over Water	☐	☐	○	◉	
□□□1□	Concrete Finishing	☐	☐	○	◉	

□□□□□00□10

□□1□	Structure Demolition / Removal Over or Adjacent to Water	☐	☐	○	◉	
ALTERNATIVE BMPs USED(4) ○ □□□ ◉ □□						

□ □□□□□
□1 □□□ □□□□M □d□□□□□□□□□□□□□□□□1□□□□3□□□□□□□□□r□□□□□□□□□□□r□□ □□□□□□□□□□□□□□□□□

□ M□□	Concrete Waste Management	☑	☑	◉	○	
□ M□□	Temporary Concrete Washout (Portable)	☐	☐	○	◉	
□ M□□	Temporary Concrete Washout Facility	☐	☐	○	◉	
□ M□□	Sanitary/Septic Waste Management	☑	☑	◉	○	
□ M□10	Liquid Waste Management	☑	☑	◉	○	
ALTERNATIVE BMPs USED(4) ○ □□□ ◉ □□						

□ □□□□□
□1 □□□ □□□□M□□d□□□□□□□□□□□□□□□□□□1□□□□3□□□□□□□□□□r□□□□□□□□□□□□r□□ □□□□□□□□□□□□□□□□□□□

- WM-3: Stockpile Management

  This BMP is to be used any time a stockpile of materials, soil, or wastes is created. Stockpiles must comply with Standard Specification 13-4.03C (3) Stockpile Management. Locate stockpiles a minimum of 50 feet away from concentrated flows of storm water, drainage courses, and inlets. Utilize run-on and run-off BMPs to ensure stockpile materials are protected and do not have the potential to discharge material. Implement wind erosion control practices as appropriate on all stockpiled material. If it is a stockpile of soil, then cover or protect it with soil stabilization methods and add a temporary perimeter sediment barrier at all times. If it is a stockpile of cement concrete rubble, asphalt concrete, aggregate base or subbase, then cover it or protect it with a temporary
  perimeter sediment barrier. If it is a stockpile of "cold mix" or treated wood, then it shall be placed on and covered with plastics and should rest on a pallet. Inspect Stockpile Management areas daily.

- WM-4: Spill Prevention and Control

  Spill control procedures are implemented anytime chemicals and/or hazardous substances are stored. This BMP only applies to spills caused by the contractor. Other spills or discharges observed or discovered must be reported to the RE. Spills are to be reported to the WPC Manager. To the extent that it doesn't compromise cleanup activities, spills shall be covered and protected from stormwater run-on. Spills shall not be buried or washed with water. Used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose shall be stored and properly disposed of. Must follow the guidelines outlined in the Standard Specifications Section 13-4.03B "Spill Prevention and Control."

- WM-5: Solid Waste Management

  The procedures and practices of this BMP are implemented on all construction projects that generate solid wastes. Employees and subcontractors will receive training on identifying solid waste and hazardous waste, and the proper storage and disposal procedures. Littering on the job site is to be prohibited. Construction debris and litter from work areas within the construction limits of the project site shall be collected and placed in watertight dumpsters daily regardless of whether the litter was generated by the Contractor, the public, or others. Collected litter and debris shall not be placed in or next to drain inlets, storm water drainage systems or watercourses. Solid waste storage areas shall be located at least 50 feet from drainage facilities and watercourses and shall not be located in areas prone to flooding or ponding. Dumpster washout on the project site is not allowed.

- WM-6: Hazardous Waste Management

  The practices of this BMP are implemented whenever waste is generated from the use of: petroleum products, asphalt products, concrete curing compounds, pesticides, acids, paints, solvents, septic wastes, or any other material deemed hazardous waste in California, Title 22 Division 4.5, or listed in 40 CFR Parts 110, 117, 261, or 302. Employees and subcontractors are to be trained on hazardous waste storage and disposal procedures. Wastes shall be stored in sealed containers constructed of a suitable material and shall be labeled as required by Title 22 CCR, Division 4.5 and 49 CFR Parts 172,173, 177 and 178, 179. All hazardous waste shall be stored, transported, and disposed as required in Title 22 CCR, Division 4.5 and 49 CFR 261-263. Drums shall not be overfilled and wastes shall not be mixed. Adequate hazardous waste storage volume is to be available to accommodate all the hazardous waste generated by the project. Waste shall be disposed of outside the project site within 90 days of being generated, or as directed by the RE. Waste shall be disposed of by a licensed hazardous waste transporter at an authorized and licensed disposal facility or recycling facility.

- WM-8: Concrete Waste Management

  Stockpile concrete demolition wastes in accordance with BMP WM-3, "Stockpile Management." Disposal of hardened PCC and AC waste shall be in conformance with Standard Specifications Section 14-10 Solid Waste Disposal and Recycling. PCC and AC waste shall not be allowed to enter storm drainage systems or watercourses. A sign shall be installed adjacent to each temporary concrete washout facility to inform concrete equipment operators to utilize the proper facilities. Temporary concrete washout facilities shall be constructed and maintained in sufficient quantity and size to contain all liquid and concrete waste generated by washout operations, and shall have a temporary pit or bermed areas of sufficient volume to completely contain all liquid and waste concrete materials generated during washout procedures. Standard Plan No. 59 from the 2023 Caltrans Standard Plans provides details on how to construct a temporary concrete washout facility. Concrete washout facilities are to be inspected daily.

- WM-9: Sanitary/Septic Waste Management

  Employees, subcontractors, and suppliers are to be trained on sanitary and septic waste storage and disposal procedures. Temporary sanitary facilities shall be located away from drainage facilities, receiving waters, and from traffic circulation. In the event of high winds or risk for overtopping, temporary systems must be properly secured. Wastewater shall not be discharged or buried within the project site. Onsite sanitary and septic waste storage and disposal procedures are to be inspected daily.

- WM-10: Liquid Waste Management

  The procedures and practices of this BMP are implemented on all construction projects that generate liquid wastes. Liquid wastes include, but are not limited to: drilling slurries, grease and oil free wastewater, rinse water, dredgings, and any other non-stormwater liquid discharges not covered by separate permits. Employees and subcontractors will receive training on identifying liquid waste and hazardous waste, and the proper storage and disposal procedures. Liquid waste prevention and management procedures shall conform to Section 13-4.03D(5) "Liquid Waste" of the Standard Specifications. Liquid waste storage containers shall be located at least 50 feet from drainage facilities, watercourses, moving vehicles and equipment, and shall not be located in areas prone to flooding or ponding.

600.3 Water Pollution Control Drawings

The WPCDs are the component of the project SWPPP that show the BMPs, by project phase/stage, that are necessary for the project to be in compliance with the CGP. The construction activity phases used in this SWPPP are the preliminary phase, grading phase, highway construction phase, and the highway planting / erosion control establishment phase. These phases are defined below:

Grading Phase

Includes clearing and grubbing, topsoil stockpiling, rough grading/or disking, or any soil disturbance prior to mass grading. It also includes reconfiguring the topography for the highway, including excavation for roadway (e.g., necessary blasting of hard rock), highway embankment construction (fills); and other earthwork. Topsoil must be preserved, unless infeasible. It must be stockpiled and stabilized, or else transferred, unless there are invasive seed banks, or if increases in impervious area eliminate the need for topsoil on the site.

Highway Construction Phase

Encompasses both highway and structure construction. Highway construction includes final roadway excavation, placement of base materials and highway paving, finish grading, curbs, gutters and sidewalks, public utilities, public water facilities including fire hydrants, public sanitary sewer systems, storm drain systems and/or other drainage improvements, highway lighting, traffic signals and/or other highway electrical work, guardrail, concrete barriers, sign installation, pavement markers, traffic striping and pavement markings. Structure construction includes structure footings, bridges, retaining walls, major culverts, overhead sign structures and buildings.

Highway Planting / Erosion Control Establishment Phase

Includes soil preparation (grading, incorporation of soil amendments, and placement of topsoil), irrigation (trenching, installation and trench backfilling), minor grading (top dressing and fine grading of lawn and ground cover areas), planting (seeding and planting of vegetation), mulching (application of wood chips or other mulches) and plant establishment (weeding, plant replacement, and, if needed, fertilizer application, irrigation maintenance, and reapplication of mulch). Erosion control includes placement of permanent erosion control materials and maintenance of temporary sediment controls during the erosion control establishment period.

The WPCDs provide field staff with the information on where to install BMPs so that they are effective. The WPCDs, Water Pollution Control Schedule provide the necessary tools for a Contractor to plan and implement BMPs to meet the requirements of the project SWPPP.

The WPCD cover sheet(s) shall include a listing of the BMPs that will be used along with the associated BMP symbols used on the WPCDs.

WPCDs are provided for all areas that are directly related to the construction activity, including but not limited to staging areas, storage yards, material borrow areas and storage areas, access roads, etc., whether or not they reside within the Caltrans rights-of-way.

The WPCDs shall show the construction project site in detail, including:

- The construction site perimeter;
- Geographic features within or immediately adjacent to the site; include surface waters such as lakes, streams, springs, wetlands, estuaries, ponds, and the ocean;
- Site topography before and after construction; include roads, paved areas, buildings, slopes, drainage facilities, and areas of known or suspected contamination; and
- Permanent (post-construction) BMPs.

The WPCDs shall show the following site information:

- Discharge points from the project to off-site storm drain systems or receiving waters;
- Tributary areas and drainage patterns across the project area (show using flow arrows) into each on-site stormwater inlet or receiving water;
- Tributary areas and drainage patterns to each on-site stormwater inlet, receiving water or discharge point;
- Off-site tributary drainage areas that generate run-on to the project;
- Temporary on-site drainage(s) to carry concentrated flows;
- Drainage patterns and slopes anticipated after major grading activities are completed;

- Outlines of all areas of existing vegetation, soil cover, or native vegetation that will remain undisturbed during the project;
- Outlines of all areas of planned soil disturbance (disturbed soil areas, DSAs);
- Known location(s) of contaminated or hazardous soils; and
- Any potential non-stormwater discharges and activities, such as dewatering operations, concrete saw-cutting or coring, pressure washing, waterline flushing, diversions, cofferdams, and vehicle and equipment cleaning; if operations can't be located on the WPCDs, a narrative description should be provided.

The WPCDs show proposed locations of all construction site BMPs. Additional detail drawings are provided if necessary to convey site-specific BMP configurations. The WPCDs shall show construction site BMPs including the following:

- Temporary soil stabilization and temporary sediment control BMPs that will be used during construction; any temporary on-site drainage(s) to carry concentrated flows, BMPs implemented to divert off-site drainage around or through the construction site, and BMPs that protect stormwater inlets;
- construction entrances used for site ingress and egress points and any proposed temporary construction roads;
- BMPs to mitigate or eliminate non-stormwater discharges;
- BMPs for waste management and materials pollution control, including, but not limited to storage of soil or waste; construction material loading, unloading, storage and access areas; and areas designated for waste handling and disposal; and
- BMPs for vehicle and equipment storage, fueling, maintenance, and cleaning.

The WPCDs can be found in Attachment H of the SWPPP.

600.4 Water Pollution Control Schedule

The WPCS shall be updated regularly to ensure it is current and reflect actual site conditions.

The Water Pollution Control Schedule (WPCS) is the component of the project SWPPP that shows the timeline for when BMPs will be installed so that the project is in compliance with the CGP. The WPCS provides field staff with the information necessary to plan for adequate materials and crews to install BMPs at the right time so that they are effective. The WPCS and WPCDs provide the necessary tools for the Contractor to plan and implement BMPs to meet the requirements of the project SWPPP.

The WPCS shall contain an adequate level of detail to show major activities sequenced with the implementation of construction site BMPs, including:

- Project start and finish dates, including each stage of the project;
- SWPPP review and approval;
- Stormwater Annual Report;
- Mobilization dates;
- Mass clearing and grubbing/roadside clearing dates;

- Major grading/excavation dates;
- Dates named in other permits such as Fish and Game and Army Corps of Engineers Permits; and
- Dates for submittal of SWPPP amendments as required in the contract specifications.

The WPCS shall show by location the dates for the deployment of:

- Temporary soil stabilization BMPs;
- Temporary sediment control BMPs;
- Wind erosion control BMPs;
- Tracking control BMPs;
- Non-stormwater BMPs; and
- Waste management and materials pollution control BMPs.

The WPCS shall include:

- Paving, saw-cutting, and any other pavement-related operations;
- Major planned stockpiling operations;
- Dates for other significant long-term operations or activities that may cause non-stormwater discharges, such as dewatering, grinding, etc; and
- Final stabilization activities for each disturbed soil area of the project.

The WPCS shall be updated as needed included as part of the winterization plan. Updates shall be filed in SWPPP File Category 20.03: Water Pollution Control Schedule. The Water Pollution Control Schedule can be found in Attachment I of the SWPPP.

If the project is subject to Standard Special Provision 21-3 and the project (partial or entire) enters permanent erosion control establishment, complete DOT CEM-2032SW Permanent Erosion Control Establishment (PECE) Report and submit to the RE.

NOTE:

The water pollution control schedule is intended to outline the timing and sequence of implementing Best Management Practices (BMPs) during the construction period to minimize and control the potential discharge of pollutants. For this project, however, all identified BMPs will be installed at the onset of construction and will remain in place and functional throughout the entire duration of the construction activities.

The scope of the project does not involve phased construction or activities that would necessitate changes to BMP implementation over time. As such, a fixed and consistent application of BMPs ensures compliance with water quality protection goals without requiring a detailed pollution control schedule.

All specified BMPs, including erosion control, sediment control, and non-stormwater management measures, will be implemented prior to the commencement of any ground-disturbing activities. These measures will remain in effect and undergo routine inspection and maintenance until the completion of construction and stabilization of the site.

Although a specific schedule is not prepared, routine monitoring and maintenance activities will be conducted as outlined in the SWPPP. Inspections will occur according to CGP requirements, ensuring that BMPs remain effective throughout the construction period. Should conditions change, or if additional phases or activities are introduced that necessitate a schedule, an amendment to the SWPPP will be made to reflect the updated requirements.

SECTION 700
PROJECT SITE IMPLEMENTATION PROGRAM

700.1 Water Pollution Control (WPC) Manager Responsibilities

The WPC Manager shall have primary responsibility and authority to implement the SWPPP and ensure the project is in compliance with the CGP. The WPC Manager is responsible for implementing the SWPPP and amending the SWPPP when any of the conditions specified in Section 100.3 are met. The Contractor has assigned authority to the WPC Manager to mobilize crews and subcontractors, as necessary, for SWPPP and CGP compliance. The WPC Manager will be available at all times throughout duration of the project.

Duties of the Contractor's WPC Manager include but are not limited to the following:

- Ensuring full compliance with the SWPPP and the CGP
- Iimplementing all elements of the SWPPP, including but not limited to implementing:
    - Prompt and effective erosion and sediment control measures; and
    - All non-stormwater management, and materials and waste management activities such as: monitoring discharges (dewatering, diversion devices); performing general site cleanup; cleaning vehicles and equipment, performing fueling and maintenance activities; providing spill control; ensuring that no materials other than stormwater are discharged in quantities that will have an adverse effect on receiving waters or storm drain systems, etc.
- Overseeing and ensuring that the following site inspections and visual site monitoring are conducted:
    - Daily required BMP inspections;
    - Weekly routine stormwater site BMP inspections;
    - Pre-storm inspections prior to forecasted storm events;
    - Daily inspections during extended forecasted storm events; and
    - Post-storm inspections for qualifying rain events.
- Mobilizing crews to repair, replace, and/or implement additional BMPs due to deficiencies, failures or other shortcomings identified during inspections, to be completed within 24 hours of identification in compliance with Standard Specification 13-1.03A (the contractor's WPC Manager shall be assigned authority by the Contractor to mobilize crews), unless a longer period is authorized.
- Coordinating with the RE to assure that if design changes to BMPs are required due to deficiencies, failures or other shortcomings identified during inspections, the changes are completed as soon as possible and the SWPPP is revised accordingly
- Monitoring NWS Forecast Office forecasts for both forecasted storm events and qualifying precipitation events; these events are defined as follows:

- A forecasted storm event is defined as a 50% or greater likelihood that 0.10 inch or more of precipitation will fall within a 24-hour period; and
- A qualifying precipitation event is defined as a storm event that may produce or has produced ½ inch or greater of precipitation at the time of discharge, with a 48-hour dry period between events.

- Monitoring weather at the project site
- Implementing qualifying precipitation event sampling and analysis plans
- Mobilizing crews immediately, in the event of NAL exceedances, to repair existing BMPs and/or implement additional BMPs (the Contractor's WPC Manager shall be assigned authority by the Contractor to mobilize crews),
- Coordinating with the RE in the event of NAL exceedances to assure that any SWPPP revisions (corrective actions) are made immediately, either to prevent pollutants and authorized non-stormwater discharges from contaminating stormwater, or to substantially reduce the pollutants to levels consistently below the NALs, so that the project complies with the SWPPP, the CGP and approved plans at all times,
- Submitting NAL exceedances reports to the RE
- Submitting test results for stormwater samples to the RE
- Preparing amendments to the SWPPP when required
- Preparing Stormwater Annual Reports
- Ensuring elimination of all unauthorized discharges
- Preparing and submitting Notice of Discharge reports to the RE
- Preparing and submitting reports of illegal connections or illicit discharges to the RE
- Submitting NEL exceedance reports to the RE

700.2 Site Inspections

Stormwater site inspections and visual monitoring are necessary to ensure that the project is in compliance with the requirements of the CGP. Project site visual monitoring requirements are covered in Sections 1400-1600 Construction Site Monitoring Program. Project site inspections of stormwater BMPs are conducted to identify and record:

- that BMPs are properly installed;
- what BMPs need maintenance to operate effectively;
- what BMPs have failed; and
- what BMPs could fail to operate as intended.

Routine stormwater site inspections shall be conducted by the contractor's WPC Manager or other 24-hour trained staff at the following minimum frequencies:

- daily inspections of:
  - storage areas for hazardous materials and waste;

- hazardous waste disposal and transporting activities;
- hazardous material delivery and storage activities;
- vehicle and equipment cleaning facilities if vehicle and equipment cleaning occurs daily;
- vehicle and equipment maintenance and fueling areas if vehicle and equipment maintenance and fueling occurs daily;
- vehicles and equipment at the job site to verify that operators are inspecting vehicles and equipment each day of use;
- demolition sites within 50 feet of storm drain systems and receiving waters;
- pile driving areas for leaks and spills if pile driving occurs daily;
- temporary concrete washouts if concrete work occurs daily;
- paved roads at job site access points for street sweeping if earthwork and other sediment or debris generating activities occur daily;
- dewatering work if dewatering work occurs daily;
- temporary active treatment system if temporary active treatment system activities occur daily; and
- work over water if work over water occurs daily.

- daily inspections of access roadways
- weekly inspection of site BMPs.

Stormwater site inspections shall be documented on DOT CEM-2030SW Stormwater Site Inspection Report, in Appendix F. Completed stormwater inspection reports shall be submitted to the RE within 24 hours after completion of the inspection. Copies of completed inspection reports will be kept in SWPPP File Category 20.31: Contractor Stormwater Site Inspection Reports.

Deficiencies identified during site inspections and correction of deficiencies will be tracked on the DOT CEM-2035SW Stormwater Corrective Actions Summary, in Appendix J Corrective Action Summary forms shall be submitted to the RE. Completed Stormwater Site Inspection Report Corrective Actions Summary forms shall be filed in SWPPP File Category 20.35: Corrective Actions Summary. A copy of the completed Corrective Actions Summary form will also be attached to the corresponding Stormwater Site Inspection Report that generated the need for the DOT CEM-2035SW Stormwater Corrective Actions Summary.

700.3 Weather Forecast Monitoring

The WPC Manager shall have primary responsibility to monitor the National Weather Service Forecast Office for forecasted precipitation based on project site location. Precipitation forecast information shall be obtained from the National Weather Service Forecast Office accessible at: www.weather.gov.

The project site location to be used for obtaining forecast from National Weather Forecast Office website is:

Choinumni Park in Fresno County.

Project's latitude/longitude for NWS Station : N 36.82038199427102, W -119.3609878590759

The WPC Manager shall monitor the weather forecast on a daily basis for predicted precipitation within the following 96 hours. The WPC Manager shall monitor the forecast for the next 24, 48, 72 and 96 hours to determine if the forecast for precipitation is 50 percent or greater for any 6-hour period. If the forecast for precipitation is 50 percent or greater, the WPC Manager shall calculate the amount of precipitation forecasted for each 24-hour period and the total precipitation for the forecasted storm event and record the information. Weather forecast monitoring shall be recorded be filed in File Category 20.40: Weather Monitoring Logs.

When the forecast for precipitation is 50 percent or greater and the forecasted amount of precipitation is 0.10 inch or more for any 24-hour period, the WPC Manager shall perform a pre-storm site inspection and ensure that the site is prepared for the likely forecasted storm event.

Forecasted storm event site preparation shall include, but is not limited to, the installation of soil stabilization and sediment BMPs on active disturbed soil areas and stockpiles.

700.4 Weather Monitoring

The WPC Manager shall have primary responsibility to monitor weather at the project site. The WPC Manager, on a daily basis, shall monitor the weather and record the weather conditions.

When there is precipitation, the WPC Manager shall ensure that storm precipitation data is obtained from the project site rain gauge. Precipitation monitoring will include recording the time, amount of precipitation measured in the project site rain gauge, amount of precipitation within a 24-hour period, and total cumulative amount of precipitation for the forecasted storm event.

If no pre-storm visual site monitoring was performed, and the amount of precipitation for any 24-hour period is 0.10 inch or greater, the WPC Manager will implement during storm visual site monitoring, as discussed in Section 800.1.

When a storm event could generate runoff, the WPC Manager will prepare to sample in accordance with section 900 and applicable SAPs for the project.

Weather monitoring will be conducted daily. Weather monitoring documentation shall be kept in File Category 20.40: Weather Monitoring Logs.

SECTION 800
CONSTRUCTION SITE MONITORING PROGRAM

800.1 Site Visual Monitoring Inspection

This Construction Site Monitoring Program includes conducting site visual monitoring inspections of the project site to address the following objectives:

- Determine whether non-visible pollutants are present at the construction site and are causing or contributing to exceedances of water quality objectives;
- Determine whether BMPs included in the SWPPP are effective in preventing or reducing pollutants in stormwater discharges and authorized non-stormwater discharges;
- Determine whether BMPs are effective in preventing or reducing pollutants in stormwater discharges and authorized non-stormwater discharges;
- Demonstrate that the site is in compliance with the discharge prohibitions and applicable NALs and Receiving Water Monitor Triggers of the CGP;
- Determine whether immediate corrective actions, additional BMP implementation, or SWPPP amendments are necessary to reduce pollutants in stormwater and authorized non-stormwater discharges;
- Demonstrate that the site is in compliance with the discharge prohibitions; and
- Document the presence or evidence of any non-stormwater discharge (authorized or unauthorized), pollutant characteristics (floating and suspended material, sheen, discoloration, turbidity, odor, etc.), and source, if applicable, and the response taken to eliminate unauthorized non-stormwater discharges and to reduce or prevent pollutants from contacting non-stormwater discharges.

The following site inspections must be performed by the QSD:

- Once within 30 days of construction activities starting;
- Once within 30 days of a new site QSD;
- Once between August 1 and October 31 of each year;
- Once between January 1 and March 31 of each year;
- Within 14 calendar days after a NAL exceedance;
- Within 14 calendar days of an approved Change of Information; and
- As requested by Water Board staff.

The following site inspections must be performed by the QSD/QSP:

- At least every calendar month;

- Once within within 2 business days forecasted qualifying precipitation event;
- Within 14 days after a NAL exceedance; and
- Before the final Notice of Termination or Change of Information for acreage changes of all or part of the site.

A QSP delegate cannot perform the above listed QSD and QSP inspections.

800.1.1 Visual Monitoring Locations

Locations of Visual Monitoring Prior To A Storm Event

Visual monitoring (a pre-storm inspection) of the project site is required when the forecast for precipitation is greater than 50 percent within the next 24, 48, 72, 96 hours, and the amount of precipitation forecasted for any 24-hour period is 0.10 inch or greater. Within 48 hours of a forecasted storm event, a stormwater visual monitoring site inspection shall be performed and shall include observations of:

- Stormwater drainage areas to identify any spills, leaks, or uncontrolled pollutant sources;
- BMPs to identify whether they have been properly implemented; and
- Any stormwater storage and containment areas to detect leaks and ensure maintenance of adequate freeboard.

1 drainage area(s) on the project site and the Contractor's yard, staging areas, and storage areas have been identified as required forecasted storm event visual observation location(s), according to Attachments D of the CGP. Drainage area(s) are shown on the WPCDs in Attachment H and are listed by drainage area location number and location description in Table 800.1.1.1: Drainage Areas.

TABLE 800.1.1.1
DRAINAGE AREAS

Drainage Area No.	Location	General Description
1	3□□□□11□□"□□ 11□□21□□3□3"□	□□□r□□□□r□□□□□□□□

0 stormwater storage or containment area(s) are located on the project site. These stormwater storage and containment area(s) have been identified as required forecasted storm event visual observation location(s). Stormwater storage or containment area(s) are shown on the WPCDs from Attachment H and are listed by storage or containment area location number and location description in Table 800.1.1.2: Stormwater Storage and Containment Areas.

Locations of Visual Monitoring during Extended Forecasted Storm Events and within 48 Hours After a Qualifying Precipitation Event

During any extended forecasted storm events and within 48 hours after a qualifying precipitation event (a rain event that has produced ½ inch or more of precipitation), a stormwater visual monitoring site inspection is required to observe:

- Stormwater discharges at all discharge locations;
- BMPs to identify and record those that need maintenance to operate effectively, those that have failed, and those that could fail to operate as intended; and
- The discharge of stored or contained stormwater.

1 discharge location(s) are located on the project site. These stormwater discharge location(s) have been identified as required visual observation location(s). Stormwater discharge location(s) are shown on the WPCDs in Attachment H and are listed in Table 800.1.1.3: Stormwater Discharge Locations.

TABLE 800.1.1.3
STORMWATER DISCHARGE LOCATIONS

Unique Sampling Location Identifier	Location	Latitude	Longitude
□	□□□□□r□□□□□□□□□□□□□□r□□□□□	3□□□□0□□□"□	11□□21□□3□□"□

Locations of Visual Monitoring for Non-Stormwater Discharges

A visual monitoring site inspection for non-stormwater discharges requires that each drainage area be observed for the presence of or indications of prior unauthorized and authorized non-stormwater discharges.

1 drainage area(s) are located on the project site and in the contractor's yard, staging areas, and storage areas that have been identified as observation location(s) for non-stormwater discharges. Drainage area(s) are shown on the WPCDs in Attachment H and are listed in Table 800.1.1.1: Drainage Areas.

800.1.2 Visual Monitoring Schedule

On a daily basis contractor personnel will visually monitor BMPs during applicable activities:

- Storage areas for hazardous materials and waste;
- Hazardous waste disposal and transporting activities;
- Hazardous material delivery and storage activities;
- Vehicle and equipment cleaning facilities if vehicle and equipment cleaning occurs daily;
- Vehicle and equipment maintenance and fueling areas if vehicle and equipment maintenance and fueling occurs daily;
- Vehicles and equipment at the job site to verify that operators are inspecting vehicles and equipment each day of use;
- Demolition sites within 50 feet of storm drain systems and receiving waters;
- Pile driving areas for leaks and spills if pile driving occurs daily;
- Temporary concrete washouts if concrete work occurs daily;
- Paved roads at job site access points for street sweeping if earthwork and other sediment or debris generating activities occur daily;

- Dewatering work if dewatering work occurs daily;
- Temporary active treatment system if temporary active treatment system activities occur daily; and
- Work over water if work over water occurs daily.

Stormwater site visual monitoring inspections shall be conducted at a minimum:

- Within 48 hours prior to a forecasted storm event (any weather pattern that is forecasted to have a 50 percent or greater probability of producing 0.1 inches or more of precipitation in the project area within a 24 period);
- At 24-hour intervals during any extended forecasted storm event; and
- Within 48 hours after a storm event that has generated runoff.

If visual monitoring of the site for stormwater is unsafe because of dangerous weather conditions, such as flooding and electrical storms, then the site inspector shall document the conditions that prevented the inspection. The documentation of the site visual monitoring inspection shall be filed in SWPPP File Category 20.33: Site Visual Monitoring Inspection Reports.

800.1.3 Visual Monitoring Procedures

Site visual monitoring will be conducted by the QSD, WPC Manager, Alternate WPC Manager or trained QSP Delegate in accordance with the CGP and Caltrans Standard Specifications Section 13 and Section 700.2.

Discharge Monitoring

During inspections, the contractor personnel shall be observant of any discharges or evidence of a prior discharge that could cause adverse conditions in the storm sewer system or the receiving water. If a discharge or evidence of a prior discharge is discovered by the contractor, the WPC Manager or contractor shall immediately notify the RE, and shall file a written report on the DOT CEM-2061SW Notice of Discharge report form with the RE within 24 hours of the discharge or discovery of evidence of a prior discharge. Corrective measures shall be implemented immediately following the discovery of the discharge. Form DOT CEM-2061SW for reporting discharges is available in Appendix M.

The agency will notify the owner/operator of the MS4 and the RWQCB as soon as practicable, but no later than 24 hours after onset of or threat of discharge which can cause adverse conditions to the storm sewer system or the receiving water. This applies to any such discharge that is not covered by California Emergency Management Agency procedures for discharges from a highway to a storm sewer system subject to a MS4 permit.

Discharges requiring reporting include:

- Stormwater from a DSA discharged to a waterway without treatment by an effective combination of temporary erosion and sediment control BMPs;
- Non-stormwater, except conditionally exempted discharges, discharged to a waterway or a storm drain system, without treatment by an approved control measure (BMP);
- Stormwater discharged to a waterway or a storm drain system where the control measures (BMPs) have been overwhelmed or not properly maintained or installed;
- Discharge of hazardous substances above the reportable quantities, as provided in 40 CFR 110.3, 117.3 or 302.4;
- Stormwater runoff containing hazardous substances from spills discharged to a waterway or storm drain system.

The contractor notifies the resident engineer, and state representative(s) on site, and initiates spill response, as appropriate. The initial notification to the RWQCB of a discharge or threat of discharge will be made immediately by State personnel for any discharge that can cause potential impact to water quality either via the storm sewer system or the receiving water, with a follow-up in writing within 24 hours on form DOTCEM-2061SW. Potential impact to water quality include, but are not limited to, serious violations or serious threatened violations of Waste Discharge Requirements (WDRs), significant spills of petroleum products or toxic chemicals, or serious damage to control facilities that could affect compliance. Follow-up monitoring of major spills and/or confirmation sampling shall be performed to ensure that threats to waters of the U.S. have been eliminated as determined by the RWQCB.

Weekly BMP Monitoring

Weekly monitoring is required to identify and record BMPs that need maintenance to operate effectively, that have failed, or that could fail to operate as intended. The weekly BMP monitoring shall include observations of:

- All stormwater storage and containment areas identified in Table 800.1.1.2 to detect leaks and ensure maintenance of adequate freeboard; and
- All BMPs for proper installation and adequate maintenance.

Observations of the site and any recommended corrective actions will be documented in the DOT CEM-2030SW Stormwater Site Inspection Report Form and DOT CEM-2035 Stormwater Corrective Actions Summary. Photographs are required for deficiencies on the stormwater site inspection report. Corrective actions shall be reviewed with the WPC Manager and corrected immediately (as soon as possible, before the precipitation or the next forecasted precipitation event) according to the authorized SWPPP. Prepare amendments to the authorized SWPPP and begin preparing design changes within 72 hours of identification of failures or other shortcomings.

Visual Monitoring Prior To A Forecasted Storm Event

Visual monitoring of the project site is required when the forecast for precipitation is greater than 50 percent within the next 24, 48, 72, or 96 hours and the amount of precipitation forecasted during the storm event is 0.10 inch or greater within a 24-hour period. Site visual monitoring shall be conducted within 48 hours prior to a forecasted storm event. The pre-storm site visual monitoring shall include observations of:

- All drainage areas identified in Table 800.1.1.1 to identify any spills, leaks, or uncontrolled pollutant sources;
- All stormwater storage and containment areas identified in Table 800.1.1.2 to detect leaks and ensure maintenance of adequate freeboard; and
- All BMPs for proper installation and adequate maintenance.

Visual Monitoring during Extended Forecasted Storm Events

Stormwater visual monitoring site inspections shall be conducted at least once each 24-hour period during any extended forecasted storm events. During any extended forecasted storm event, the site visual monitoring inspector shall visually observe:

- Stormwater discharges at all discharge locations (Table 800.1.1.3); and
- All stored or contained stormwater that will likely discharge after working hours, due to anticipated precipitation, shall be observed prior to the discharge during working hours.

Stormwater discharges and stored or contained stormwater will be observed for the presence or absence of floating and suspended materials, sheens on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants.

During any forecasted storm event, stormwater visual monitoring site inspections will include the observation of all site BMPs for:

- Proper installation;
- Achievement of maintenance requirements;
- Possible failure;
- BMPs that could fail to operate as intended; and
- Effectiveness, so that design changes can be implemented as soon as feasible if needed.

Visual Monitoring After A Storm Event That Generated Runoff

The post-storm site visual monitoring inspection shall include observations of:

- Discharges of stormwater where BMPs might not have been effective ; and
- Evidence of a breach of stored or contained stormwater that will likely discharge after working hours, due to anticipated precipitation, runoff, or snow melt, shall be observed prior to the discharge during working hours.

Stormwater discharges and stored or contained stormwater will be observed for the presence or absence of floating and suspended materials, sheens on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants.

Post storm events that generated runoff stormwater visual monitoring site inspections will include observation of all site BMPs to determine if BMPs have failed to operate as intended because of:

- Improper installation;
- Lack of maintenance; and
- Lack of effectiveness.

Observations of the site and any recommended corrective actions will be documented in the DOT CEM-2030SW Stormwater Site Inspection Report Form and DOT CEM-2035 Stormwater Corrective Actions Summary. Photographs are required for deficiencies on the stormwater site inspection report. Corrective actions shall be reviewed with the WPC Manager and corrected immediately (as soon as possible, before the precipitation or the next forecasted precipitation event) according to the authorized SWPPP. Prepare amendments to the authorized SWPPP and begin preparing design changes within 72 hours of identification of failures or other shortcomings.

Visual Monitoring of Non-Stormwater Discharges

For non-stormwater site visual monitoring, each drainage area will be monitored quarterly for the presence or prior indications of unauthorized and authorized non-stormwater discharges, and their sources. The presence or absence of non-stormwater discharges based on site observations will be documented in the DOT CEM-2030SW Stormwater Site Inspection Report Form. Documentation of observed non-stormwater discharges will include presence or absence of floating and suspended materials, sheens on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants.

Site observations of the site and any recommended corrective actions will be documented. Corrective actions documented in site inspection reports shall be immediately reviewed by the WCP Manager and, if deemed necessary implemented, as required by Standard Specification 13-1.03A, within 24 hours of identification unless a longer period is authorized (but cannot be authorized longer than required by the CGP: implemented within 72 hours of identification and completed as soon as possible thereafter). If BMPs require design changes, the changes shall be implemented and the SWPPP shall be amended to include the changes. Corrective actions shall be documented in the DOT CEM-2035SW Stormwater Corrective Actions Summary.

800.1.4 Visual Monitoring Follow-up and Tracking Procedures

For deficiencies identified during visual monitoring (site inspections), the required repairs or maintenance of BMPs shall begin and be completed as soon as possible, while taking into consideration worker safety. For deficiencies identified during visual site inspections that require design changes, including additional BMPs, the implementation, as required by Standard Specification 13-1.03A. When design changes to BMPs are required, the SWPPP shall be amended, including the WPCDs. If NALs are exceeded, corrective actions shall be approved by the WPC Manager and implemented immediately.

Deficiencies identified on site inspection reports, as well as corrections of deficiencies, will be tracked on the DOT CEM-2035SW Stormwater Corrective Actions Summary Report Form, in Appendix J. Corrective action summaries shall be submitted to the RE and show that the deficiencies were properly addressed.

800.1.5 Data Management and Reporting

The results of site visual monitoring (pre-storm, during storm, post-storm, and quarterly inspections) shall be recorded on the DOT CEM-2030SW Stormwater Site Inspection Report Form, in Appendix F. A copy of each report shall be kept in SWPPP File Category 20.33.

All reports shall be provided to the RE within 24 hours of the site inspection.

Completed Stormwater Corrective Actions Summary forms shall be filed in SWPPP File Category 20.35: Corrective Actions Summary. A copy of the completed Corrective Actions Summary form will also be attached to the corresponding inspection report and shall be kept in the SWPPP Category 20.33.

If a discharge or evidence of a prior discharge that could cause adverse condition in the storm sewer or the receving water is discovered by the Contractor, the WPC Manager or Contractor shall immediately notify the RE, and no more than 6 hours after discovery, and will file a written report to the RE within 24 hours of the discovery of evidence of a prior discharge. The written report to the RE will contain:

- The date, time, location, and type of unauthorized discharge;
- The nature of the operation that caused the discharge;
- An initial assessment of any impacts caused by the discharge;

- The BMPs deployed before the discharge;
- The date of deployment and type of BMPs deployed after the discharge, including additional measures installed or planned to reduce or prevent re-occurrence; and
- Steps taken or planned to reduce, eliminate and/or prevent recurrence of the discharge.

Discharges shall be documented on the DOT CEM-2061SW Notice of Discharge Report Form, in Appendix M. Completed Notice of Discharge reports shall be submitted to the RE within 24 hours of discovery of evidence of a discharge. Copies of the Notice of Discharge reports will be kept in SWPPP File Category 20.61: Notice of Discharge Reports.

900 Sampling and Analysis Plans

901 General SAP

A sampling and analysis plan (SAP) describes how samples will be collected, under what conditions, where and when the samples will be collected, what the sample will be tested for, what test methods and detection limits will be used, and what methods/procedures will be performed to ensure the integrity of the sample during collection, storage, shipping and testing (i.e., quality assurance/quality control protocols). Therefore, a SAP shall include the components listed below:

1. Scope of Monitoring Activities
2. Monitoring Preparation
3. Monitoring Strategy
4. Sample Collection and Handling
5. Sampling Analysis
6. Quality Control and Assurance
7. Data Management and Reporting
8. Data Evaluation
9. Change of Conditions

902 Scope of Monitoring Activities

For specific detailsregarding monitoring activities, the SAP sections as follows:

- Non-visible Pollutants (including TMDLs) (Section 1000),
- Non-Stormwater and Dewatering Discharges (Section 1100),
- Stormwater pH and Turbidity and Receiving Water Monitoring (section 1200),
- Monitoring required by the Regional Board (Section 1300), and
- Active Treatment Systems (ATS) (Section 1400).

These sections may or may not apply to each project.

903 Monitoring Preparation

To ensure an effective construction site monitoring and reporting program, the following monitoring preparation activities are required:

- Identifying qualified sampling personnel,
- Ensuring the availability of an adequate quantity of monitoring supplies,

- Ensuring the availability of field instruments; field instruments must be properly maintained and calibrated prior to sampling events, and
- Identifying a qualified testing laboratory that is capable of performing stormwater and non-stormwater analysis for those constituents that must be tested in a laboratory.

903.1 Qualified Sampling Personnel

Sampling personnel shall be trained to collect, maintain, and ship samples in accordance with the Surface Water Ambient Monitoring Program (SWAMP) Quality Assurance Program Plan (QAPrP).

Stormwater sampling and field analysis will be performed by the following primary sampler:

Stormwater Sampling and Testing Agent

Name:

Title:

Company:

Address:

,

Phone Number:

Emergency Phone Number (24/7)

Email address:

The primary stormwater sampler has received the following stormwater sampling training:

-
-

The primary stormwater sampler has the following stormwater sampling experience:

-
-

Stormwater sampling and field analysis will be performed by the following Alternate Sampler (name and phone number):

The alternate stormwater sampler has received the following stormwater sampling training:

-
-

The alternate stormwater sampler has the following stormwater sampling experience:

-
-

Training records of designated contractor sampling personnel are provided in Attachment E, DOT CEM-20DCONSW Contractor Stormwater Personnel Training Record.

Safety practices for sample collection will be in accordance with the .

903.2 Monitoring Supplies

An adequate stock of monitoring supplies and equipment for sampling will be available on the project site prior to a sampling event. Monitoring supplies and equipment will be stored in a cool temperature environment that will prevent the supplies/equipment from coming into contact with rain or direct sunlight. Supplies maintained at the project site or are brought to the site by the lab or sampling personnel.

The Stormwater Sampling and Testing Agent will obtain and maintain the field testing instruments, identified in Section 903.3, for analyzing samples in the field by contractor sampling and testing personnel.

will provide monitoring supplies and equipment, including, but not limited to, surgical gloves, sample collection equipment, coolers, appropriate number and volume of sample bottles, identification labels, re-sealable storage bags, paper towels, personal rain gear, and ice.

will obtain and maintain the field testing instruments, identified in Section 903.3, for analyzing samples in the field by their sampling and testing personnel.

903.3 Field Instruments

The field instrument(s) shown in Table 903.3.1: Field Instruments will be used to analyze the constituents shown:

TABLE 903.3.1
FIELD INSTRUMENTS

Field Instrument	Constituent

The instrument(s) shall be maintained in accordance with manufacturer's instructions.

The instrument(s) shall be calibrated before each sampling and analysis event.

A Standard Operating Procedure (SOP) for calibration and maintenance of field instruments shall be implemented based on the meter manufacturer's instructions. A copy of the manufacturer's instructions shall be attached to the SOP so that they are readily available.

Maintenance and calibration records shall be maintained in SWPPP File Category 20.55: Field Testing Equipment Maintenance and Calibration Records.

903.4 Testing Laboratory

Samples collected on the project site that require laboratory testing will be tested by certified laboratory (ELAP). Samples collected on the project site will be analyzed by:

Laboratory Name:

Address:

,

Contact Name:

Title:

Phone Number:

Emergency Phone Number (24/7):

Email Address:

904 Monitoring Strategy

The monitoring strategy includes identifying analytical constituents, potential sampling locations, identification of actual sampling locations, and sampling schedule.

904.1 Analytical Constituents

Stormwater and non-stormwater discharges shall be monitored for the analytical constituents specified in the specific SAP(s) in this SWPPP.

904.2 Potential Sampling Locations

Potential sampling locations must be representative of the stormwater and non-stormwater discharges from the construction site. Existing conditions and associated construction activities within each drainage area form the basis for determining representative stormwater sampling locations.

Project drainage areas and potential sampling locations have been determined by:

- Reviewing project plans;
- Visiting project site; and
- Reviewing topography maps.

The WPCDs show the demarcation of all drainage areas that are either:

- Within the project site; and
- Cover part of the project site.

The QSD must identify potential sampling locations where concentrated run-off:

- Leaves the Caltrans right-of-way;
- Drains into an MS4; and
- Discharges into a receiving water.

Potential run-on sampling locations were determined where concentrated run-on:

- Enters the right-of-way; and
- Combines with the stormwater on site and then discharges into an MS4, including the location(s) of discharge into the MS4.

The following locations were determined when runoff discharges directly into receiving water bodies:

- The discharge location(s) into the receiving water;
- A potential sampling location upstream of all discharge locations; and
- A potential sampling location downstream from all discharge location(s) into the receiving water.

If an ATS is used on site, then sample locations must be included in Section 1400.

Potential stormwater and non-stormwater sampling locations must be shown on the WPCDs in Attachment H. The QSD has identified each of the potential sampling locations with a unique sample location identification code, as shown below. The identification code must start with a number and must be different for each location. If the construction site lies in a west-to-east orientation, starting with one (01) from the east, the potential sampling locations shall be numbered toward the west. If the construction site lies in a south-to-north orientation, the potential sampling locations shall be numbered toward the north.

To further distinguish among the locations, each potential sampling location has been identified with one of the following abbreviations based on the sampling location type:

- Discharge locations leaving Caltrans right-of-way: DL
- Discharge locations from areas with known non-visible pollutants: NVP
- Discharge locations upgradient of areas with known non-visible pollutants: UNVP
- Discharge locations to an MS4: MS
- Run-on locations: RO
- Discharge locations into a receiving water: RW
- Downstream of all discharge locations: RWD
- Upstream of all discharge locations: RWU
- Dewatering discharge locations: DDL
- Contained stormwater discharge locations: CSDL
- Discharge locations for ATS: ATS

The unique sample location identification code shall follow this format, **SSSTTTTXX**, where:

SSS = sampling location identifier number (e.g., 010)
TTTT = sampling location type (e.g. DL)
XX = identifier number for the type of sampling location

For example, the sampling location identification for the 15th sampling location based on starting from the south end of the project for a stormwater discharge location that has been identified to be the ninth discharge location would be **015DL09.**

Potential sampling locations shown on the WPCDs shall be identified with unique sampling location identifiers. The unique identification of each potential sampling location based on its number and abbreviation of type shall be used on all sampling documentation.

The WPC Manager may have to revise and/or add sampling locations during the course of construction as conditions require.

904.3 Identification of Actual Sampling Locations

For each forecasted storm event, actual sampling locations will be determined by the WPC Manager based on the strategy described in each specific SAP.

904.4 Sampling Schedule

For the sampling schedule, see the specific SAPs. If a scheduled sampling activity is unsafe because of dangerous weather conditions, such as flooding and electrical storms, then the stormwater sampler shall document why an exception to performing the sampling was necessary.

905 Sample Collection and Handling

Sample collection procedures shall be used to ensure that representative samples are collected and that the potential for contamination of samples is minimized. Sample handing procedures are followed to ensure that samples are identified accurately and that the required analysis is clearly documented. Completed Chain-of-Custody (CoCs) forms are required to trace the possession of the sample from collection through analysis.

905.1 Sample Collection Procedures

Samples shall be collected, maintained and shipped in accordance with the SWPPP, the CSMPGM, and State Water Board Surface Water Ambient Monitoring Program (SWAMP) Quality Assurance Program Plan, and Sampling and sample preservation must be in accordance with the current edition of, "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association).

Grab samples shall be collected and preserved in accordance with the methods identified in each specific SAP. Only personnel trained in proper water quality sampling shall collect samples.

Samples from areas of sheet flow can be collected using the collection procedures shown in the video at http://www.youtube.com/watch?v=AmEJUNp44aU. For pH and turbidity sampling, sheet flow sampling can be conducted as described below to concentrate the flow in order to collect a sample or follow other procedures approved by the RE.

- Place several rows of sandbags in a half circle directly in the path of the sheet flow to pond water, and wait for enough water to spill over. Then place a cleaned or decontaminated flexible hose along the top, and cover with another sandbag so that ponded water will only pour through the flexible hose and into sample bottles. Do not reuse the same sandbags during future sampling events as they may cross-contaminate future samples.

- Place a cleaned or decontaminated dustpan with open handle in the path of the sheet flow so that water will pour through the handle and into sample bottles.

For receiving water sampling, upstream samples shall be collected to represent the water body upgradient of the construction site. Downstream samples shall be collected to represent the water body mixed with direct discharge from the construction site. Samples shall not be collected directly from ponded, sluggish, or stagnant water.

Receiving water upstream and downstream samples shall be collected using one of the following methods:

- Placing a sample bottle directly into the stream flow in or near the main current upstream of sampling personnel and allowing the sample bottle to fill completely;

  OR

- Placing a decontaminated or sterile bailer or other sterile collection devise in or near the main current to collect the sample and then transferring the collected water to appropriate sample bottles allowing the sample bottle to fill completely.

To maintain sample integrity and prevent cross-contamination, sampling collection personnel shall follow the procedures listed below.

- Wear a clean pair of surgical gloves donned prior to the collection and handling of each sample at each location.
- Decontaminate sampling equipment prior to sample collection using a TSP-soapy water wash, distilled water rinse, and final rinse with distilled water. Dispose of decontamination water/soaps appropriately (i.e., do not discharge to the storm drain system or receiving water).
- Do not allow the inside of the sample bottle to come into contact with any material other than the run-off sample.
- Discard sample bottles or sample lids that have been dropped onto the ground prior to sample collection.
- Do not leave the cooler lid open for an extended period of time once samples are placed inside.
- Do not sample near a running vehicle where exhaust fumes may impact the sample.
- Do not touch the exposed end of a sampling tube, if applicable.
- Avoid allowing rainwater to drip from rain gear or other surfaces into sample bottles.
- Do not eat, smoke, or drink during sample collection/field measurement.
- Do not sneeze or cough in the direction of an open sample bottle.
- Minimize the exposure of the samples to direct sunlight, as sunlight may cause biochemical transformation of the sample.
- Use sampling containers for the test method, and do not overfill the containers.

905.2 Sample Handling Procedures

Immediately following collection, sample bottles to be forwarded for laboratory analytical testing shall be capped, labeled, documented on the Chain-of-Custody Record, sealed in a re-sealable storage bag, placed in an ice-chilled cooler, at 0 ±4 degrees Celsius, and delivered within 48 hours of sampling, or sooner, depending on the test method requirements hours to the laboratory identified in sub-section 903.4.

Immediately following collection, samples used for field analysis shall be tested in accordance with the field instrument manufacturer's instructions and results recorded on the DOT CEM-2052SW Storm Event Sampling or Receiving Water Monitoring Report form, Appendix L.

905.3 Sample Documentation Procedures

All original data documented on sample bottle identification labels, the Chain-of-Custody, and the DOT CEM-2052SW Storm Event Sampling or Receiving Water Form, shall be recorded using waterproof ink. These shall be considered accountable documents. If an error is made on an accountable document, the individual shall make corrections by lining through the error and entering the correct information. The erroneous information shall not be obliterated. All corrections shall be initialed and dated. The DOT CEM-2052 SW form is available electronically and on the ipad website also, and may be filled out on a mobile device. A printed copy should be included in the SWPPP.

Duplicate samples shall be identified in a manner consistent with the numbering system for other samples to prevent the laboratory from identifying duplicate samples. Duplicate samples can be identified in the DOT CEM-2052SW Storm Event Sampling or Receiving Water Form, Appendix L.

Sampling Bottle Identification Label: Sampling personnel shall attach an identification label to each sample bottle, which shall include, at a minimum, the following information:

- project name
- contract number and/or project identifier number
- unique sample identification code, which shall follow this format, **SSSSSYYMMDDHHmm**, where

  SSSSS = sampling location identifier number (e.g., 01MS1)

  YY = last two digits of the year (e.g. 11)

  MM = month (01-12)

  DD = day (01-31)

  HH = hour sample collected (00-23)

  mm = minute sample collected (00-59)

  TT = Type or QA/QC Identifier (if applicable)

  FS = field duplicate

  For example, the sample number for a grab sample collected at Station 01MS1, collected at 4:15PM on December 8, 2011 would be **01MS11112081615.**
- Constituent to be analyzed
- Initials of person who collected the sample

Use DOT CEM-2051SW to document the storm event summary including:

- Date,
- Time of day for storm begin and end,
- Whether runoff was observed,
- Whether sampling was conducted,
- The project's rain gauge reading,
- Number of discharged points sampled,
- Total number of days with run-off observed to be discharging from the site,
- Storm precipitation total,
- Comments or exceedances.

Form DOT CEM-2052SW is to document the field instruments, their calibration and sampling results including:

- Type of sampling conducted,
- Sampler information,
- Meters information and their calibration records,
- Time sample was collected,
- Time sample was read,
- Results of the sampling,
- Any sampling exceptions,
- Whether the sampling was sent to a lab for analysis,
- Whether there were ay NAL or NEL exceedances in any of the sampling results.

Sample Information, Identification and Chain-of-Custody Record Forms: All samples to be analyzed by a laboratory will be accompanied by a Chain-of-Custody. The samplers will sign the Chain-of-Custody when samples are turned over to the testing laboratory. Chain-of-custody procedures will be strictly adhered to for QA/QC purposes.

906 Sample Analysis

For the analytical methods to be used to determine the presence of pollutant(s), see the specific SAPs in this CSMP.

907 Quality Assurance/Quality Control

For verification of laboratory or field analysis, duplicate samples shall be collected at a rate of 10 percent or 1 minimum duplicate per sampling event. The duplicate sample shall be collected, handled, and analyzed using the same protocols as primary samples. A duplicate sample shall be collected immediately after the primary sample has been collected. Duplicate samples shall not influence any evaluations or conclusions; however, they shall be used as a check on laboratory or field analysis quality assurance.

908 Data Management and Reporting

All test results shall be documented on either the DOT CEM-2052SW Storm Event Sampling or Receiving Water Monitoring Report form and all sampling events shall be recorded on the DOT CEM-2051SW Storm Event SWPPP Sampling Log Form. These shall be considered accountable documents. If an error is made on an accountable document, the individual shall make corrections by lining through the error and entering the correct information. The erroneous information shall not be obliterated. All corrections shall be initialed and dated.

For laboratory testing, all laboratory analysis results shall be reviewed for consistency among laboratory methods, sample identifications, dates, and times for both primary samples and QA/QC samples.

All sampling and testing documentation, including the Chain-of-Custody, DOT CEM-2051SW Storm Event SWPPP Sampling Logs, DOT CEM-2052SW Storm Event Sampling or Receiving Water Monitoring Reports, and Laboratory Test Reports shall be kept in the appropriate SWPPP file category. Sampling and testing documentation shall be filed in the appropriate following SWPPP file category based on the specific SAP that required the sampling and analysis:

- non-visible pollutant sampling and testing – SWPPP File Category 20.51;
- non-stormwater discharge sampling and testing – SWPPP File Category 20.50
- turbidity and pH, sampling and testing – SWPPP File Category 20.52
- required RWQCB sampling and testing – SWPPP File Category 20.53
- ATS sampling and testing – SWPPP File Category 20.54

If corrective actions are taken as a result of the data evaluation, a copy of the completed DOT CEM-2035SW Stormwater Corrective Actions Summary form shall be filed in File Category 20.35: Corrective Actions Summary. Report any NAL exceedances to the WPC Manager and Resident Engineer.

A copy of completed sampling records and reports and an updated DOT CEM-2051SW Storm Event SWPPP Sampling Log Form shall be submitted to the RE. All water quality analytical results, including QA/QC data, shall be submitted to the RE within 48 hours of sampling for field analyzed samples, and within 30 days for laboratory analyses.

909 Data Evaluation

For data evaluation of stormwater sample test results, see specific SAPs.

910 Change of Conditions

Whenever stormwater visual monitoring site inspections indicate a change in site conditions that might affect the appropriateness of sampling locations, sampling and testing protocols shall be revised accordingly. All such revisions shall be implemented as soon as feasible, and the SWPPP amended.

1000 Sampling and Analysis Plan for Non-Visible Pollutants

This SAP has been prepared for monitoring non-visible pollutants in stormwater and non-stormwater discharges from the project site and off-site activities directly related to the project, in accordance with the requirements of the CGP and applicable requirements of the Caltrans Construction Site Monitoring Program Guidance Manual (CSMPGM),August 2013. This SAP for monitoring non-visible pollutants includes all of the components listed in Section 900.

All projects require non-visible sampling based on site conditions. If the project is within a TMDL watershed as outlined in CGP Table H.2, non-visible sampling and other additional requirements might be applicable.

1001 Scope of Monitoring Activities

The scope of monitoring for discharges of non-visible pollutants from the construction site is based on the construction materials and construction activities to be performed on the project site, potential for the presence of non-visible pollutants, based on the historical use of the site, and potential non-visible pollutants in run-off from areas where soil amendments have been used on the project site.

The construction materials, wastes or activities listed below, and identified in Section 300.8, are potential sources of non-visible pollutants to stormwater discharges from the project. Storage, use, and operational locations are shown on the WPCDs in Attachment H:

- Fuel, Oil, Grease
- Paint
- Concrete pouring
- Asphalt surfacing
- Erosion control products
- Clearing and grubbing
- Sawcutting

The existing site features listed below, and identified in Section 300.6, are potential sources of non-visible pollutants to stormwater discharges from the project:

- Non that are known

The soil amendments listed below have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil and will be used on the project site:

- None that are known

1002 Monitoring Preparation

Refer to the general requirements in General SAP Section 903 for monitoring preparation.

1002.1 Qualified Sampling Personnel

Refer to the general requirements in General SAP Section 903.1 for Qualified Sampling Personnel.

1002.2 Monitoring Supplies

Refer to the general information in General SAP Section 903.2 regarding monitoring supplies.

1002.3 Field Instruments

Refer to the general information in General SAP Section 903.3 regarding field instruments.

1002.4 Testing Laboratory

Refer to the contact information found in General SAP Section 903.4 for the Testing Laboratory.

1003 Monitoring Strategy

The monitoring strategy for non-visible pollutants in stormwater discharges is to identify all non-visible pollutants that may be on the project site, non-visible pollutant sources, and water quality indicators that will indicate the presence of the non-visible pollutant in stormwater discharges. Locations will be identified where sources of non-visible pollutants will be used, stored or exist because of historical use of the project site so that these areas are monitored prior to and during forecasted storm events after historical or present.

Non-visible pollutant monitoring is only required where a discharge can cause or contribute to an exceedance of a water quality standard when all of the following occur:

Materials or waste, including those from historic contamination, were left exposed, the discharge of the materials would be non-visible, and, a runoff-generating storm occurred.

When all of the above have happened, as discovered in a pre-storm or during storm event inspection, then non-visible pollutant sampling must be implemented.

For the non-visible pollutant sampling event, the WPC Manager will also require the collection of an uncontaminated sample of runoff as a background sample for comparison with the samples being analyzed for non-visible pollutants. The WPC Manager reviews the analysis results from the non-visible pollutant stormwater discharge sampling location and the analysis results from the uncontaminated run-off sampling location to determine if there is an increased level of the tested non-visible pollutant analyte in the stormwater discharge.

1003.1 Analytical Constituents

Identification of Potential Non-Visible Pollutants

The following table lists the specific sources and types of non-visible pollutants on the project site and the applicable water quality indicator constituent(s) for that pollutant.

TABLE 1003.1
POTENTIAL NON-VISIBLE POLLUTANTS AND WATER QUALITY INDICATOR CONSTITUENTS

Pollutant Source	Pollutant	Water Quality Indicator Constituent
□□□□

TABLE 1003.2.1 NON-VISIBLE POLLUTANT SAMPLING LOCATIONS			
Sampling Location Identifier	**Location**	**Latitude**	**Longitude**
1	□□□□□□of the p r oje □t □□□□	36°4 □□0□. □"□	119□21□□3. □"□

Non-visible pollutant sampling locations shall be shown on the WPCDs in Attachment H.
1 sampling location(s) has been identified for the collection of an uncontaminated sample of runoff as a background sample for comparison with the samples being analyzed for non-visible pollutants. These location(s) were selected to sample the run-on that would not have come in contact with the non-visible pollutant sources. Upstream runoff sampling locations are listed in Table 1003.2.2:

TABLE 1003.2.2 UNCONTAMINATED NON-VISIBLE POLLUTANT SAMPLING LOCATIONS			
Sampling Location Identifier	**Location**	**Latitude**	**Longitude**
1	□□r□□□□□□□□□□□r□□□□□□□□	36° □□1□□□"□	119□21□□5. □"□

Non-visible pollutant uncontaminated sampling locations shall be shown on the WPCDs from Attachment H.

Sampling for non-visible pollutants will be based on any of the conditions listed below having been identified during the visual monitoring site inspections.

- Locations where materials or wastes containing potential non-visible pollutants are not stored under watertight conditions. Watertight conditions are defined as (1) storage in a watertight container, (2) storage under a watertight roof or within a building, or (3) protected by temporary cover and containment that prevents stormwater contact and runoff from the storage area.

- Locations where materials or wastes containing potential non-visible pollutants are stored under watertight conditions, but (1) a breach, malfunction, leakage, or spill is observed, (2) the leak or spill is not cleaned up prior to the forecasted storm event, and (3) the potential exists for discharge of non-visible pollutants to surface waters or a storm drain system.

- Locations where a construction activity (including but not limited to those identified in Section 300.8) with the potential to contribute non-visible pollutants (1) was occurring during or within 24 hours prior to the forecasted storm event, (2) involved the use of applicable BMPs that were observed to be breached, malfunctioning, or improperly implemented, and (3) resulted in the potential for discharge of non-visible pollutants to surface waters or a storm drain system.

- Locations where soil amendments that have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil have been applied, and the potential exists for discharge of non-visible pollutants to surface waters or a storm drain system.

- Locations where stormwater runoff from an area contaminated by historical usage of the site has been observed to combine with stormwater runoff from the site, and the potential exists for discharge of non-visible pollutants to surface waters or a storm drain system.

If the presence of a material storage, waste storage, or operations area where spills have been observed or the potential for the discharge of non-visible pollutants to surface waters or a storm drain system was noted during a site inspection conducted prior to or during a forecasted storm event and such an area has not been identified on the list of non-visible pollutant sampling locations, the WPC Manager must identify the corresponding discharge location and the corresponding upgradient sampling location as non-visible sampling locations. The additional sampling location for non-visible pollutant monitoring shall be shown on the WPCDs from Attachment H.

1003.3 Sampling Schedule

In addition to the general scheduling requirements in General SAP Section 904.4, samples for non-visible pollutant monitoring, including both the non-visible pollutants samples and uncontaminated background samples, shall be collected. Samples shall be collected as soon as possible after discovery of a breach in non-visible pollutant containment that was not cleaned up before a storm event. CGP Attachment D III.D.3.c. Dischargers shall collect at least one sample, within 8 hours, from each discharge location hydraulically down-gradient from the observed triggering event or condition.

The sampling for non-visible pollutants will be sampled when visual runoff is noticed

1004 Sample Collection and Handling

Refer to the general requirements for sample collection and handling in General SAP Section 905.

1004.1 Sample Collection Procedures

Refer to the general procedures for sample collection in General SAP Section 905.1.

1004.2 Sample Handling Procedures

Refer to the general procedures for sample handling in General SAP Section 905.2.

1004.3 Sample Documentation Procedures

In addition to the general sample documentation procedures provided in General SAP Section 905.3, the Stormwater Site Inspection Report (DOT CEM-2030SW) and the Stormwater Corrective Action Summary (DOT CEM-2035SW) comprise the Visual Monitoring Report, and document the triggering events and response related to the non-visible pollutant sampling.

1005 Sample Analysis

Samples collected for monitoring of non-visible pollutants will be analyzed by the laboratory identified in Section 903.4. Most of the constituents require lab analysis but some can be done using field instruments as identified earlier in this section. Samples shall be analyzed for the constituents identified in Table 1003.1, using the analytical methods identified in the following table, entitled “Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants.”

1006 Quality Assurance/Quality Control

Refer to the general requirements regarding Quality Assurance/Quality Control (QA/QC) in General SAP Section 907.

1007 Data Management and Reporting

Refer to general requirements for data management and reporting General SAP Section 908.

TABLE 1007.1
NUMERIC ACTION LEVELs AND NUMERIC EFFLUENT LIMITATIONs FOR NON-VISIBLES

Parameter	Discharge Type	Numeric Action Level	Numeric Effluent Limitation

1008 Data Evaluation

Water quality sample analytical results for non-visible pollutants shall be compared to the uncontaminated background sample results. Should the discharge (downgradient) sample show an increased level of the tested non-visible pollutant analyte relative to the background sample, the BMPs, site conditions, and surrounding influences shall be assessed to determine the probable cause for the increase.

Corrective actions shall be made immediately upon discovery of a possible breach that triggers NVP sampling.

1009 Change of Conditions

Refer to the general requirements for change of conditions in General SAP Section 910.

1100 Sampling and Analysis Plan for Non-Stormwater Discharges

This SAP has been prepared for monitoring non-stormwater discharges from the project site and off-site activities directly related to the project, in accordance with the requirements of the CGP and applicable requirements of the Caltrans Construction Site Monitoring Program Guidance Manual, August 2013.

1101 Scope of Monitoring Activities

Non-stormwater either authorized and unauthorized. Non-stormwater discharges can be authorized by an NPDES permit or may be conditionally except(authorized by the CGP, and not otherwise prohibited by a regional Basin Plan.)

The CGP contain the following list of authorized non-stormwater discharges:

- Fire-fighting activity;
- Fire hydrant system flushing;
- Irrigation of vegetative erosion control measures;
- De-chlorinated potable water, including uncontaminated water line flushing;
- Hydrostatic pipe flushing and testing water;
- Air conditioning or compressor condensate;
- Uncontaminated groundwater or spring water from construction dewatering activities incompliance with Attachment J ; and
- Water to control dust.

For non-stormwater discharges that are authorized where runoff is discharged off site, sampling and testing of the discharge must be conducted in compliance with the CGP.

The following are examples of unauthorized non-stormwater discharges common to construction activities:

- Vehicle and equipment wash water, including concrete washout water;
- Slurries from concrete cutting and coring operations, or grinding operations;
- Slurries from concrete or mortar mixing operations;
- Residue from high-pressure washing of structures or surfaces;
- Wash water from cleaning painting equipment;
- Dust palliatives;
- Sanitary and septic wastes; and
- Chemical leaks and/or spills of any kind, including but not limited to, petroleum, paints, cure compounds, etc.

When an unauthorized non-stormwater discharge is discovered, the WPC Manager will review if sampling of the effluent is necessary to detect whether non-visible pollutants are present in the discharge. Sampling and analysis shall be performed in accordance with Section 1000, the SAP for non-visible pollutants. Form DOT CEM-2061SW Notice of Discharge Form is needed to report unauthorized non-stormwater discharges, within 24 hours of discovery.

1102 Monitoring Preparation

Refer to the general requirements for monitoring preparation in General SAP Section 903.

1102.1 Qualified Sampling Personnel

Refer to the general requirements for Qualified Sampling Personnel in General SAP Section 903.1.

1102.2 Monitoring Supplies

Refer to the general information regarding monitoring supplies in General SAP Section 903.2.

1102.3 Field Instruments

Refer to the general information regarding field instruments in General SAP Section 903.3.

1102.4 Testing Laboratory

Refer to the contact information for the testing laboratory found in General SAP Section 903.4.

1103 Monitoring Strategy

Non-stormwater discharges and dewatering of stormwater from the construction site will be monitored for exceedances of water quality standards.

1103.1 Analytical Constituents

For authorized non-stormwater dewatering discharges and discharges of stored stormwater, samples shall be analyzed for the following constituents:

- pH; and
- Turbidity.
-
-

1103.2 Sampling Locations

Using the criteria in Section 904.2, sampling locations on the project site for monitoring dewatering discharges, discharges of impounded stormwater, and other non-stormwater discharges were identified. Sampling locations were based on: proximity to planned non-stormwater dewatering; non-stormwater occurrence or use; accessibility for sampling and personnel safety; and other factors in accordance with the applicable requirements in the

Caltrans Construction Site Monitoring Program Guidance Manual, August 2013
Sampling locations shall be shown on the WPCDs in Attachment H.

N/A sampling location(s) on the project site have been identified as locations for the collection of non-stormwater dewatering samples and the sampling location(s) are listed in Table 1103.2.1: Non-stormwater Dewatering Sampling Locations.

TABLE 1103.2.1
NON-STORMWATER DEWATERING SAMPLING LOCATIONS

Sampling Location Identifier	Location	Latitude	Longitude
□/□	□/□	□/□	□/□

N/A sampling location(s) on the project site been identified as locations for the collection of discharge samples of impounded stormwater and the sampling location(s) are listed in Table 1103.2.2: Impounded Stormwater Discharge Sampling Locations.

TABLE 1103.2.2
IMPOUNDED STORMWATER DISCHARGE SAMPLING LOCATIONS

Sampling Location Identifier	Location	Latitude	Longitude
□/□	□/□	□/□	□/□

When stormwater is impounded in excavations on the project site and the impounded stormwater has the potential to create runoff from the project site, the WPC Manager will determine the sampling location for collecting impounded stormwater discharge samples.

If new locations for dewatering discharges or impounded stormwater discharges that have not been identified on the list of stormwater and authorized non-stormwater sampling locations are identified during the course of construction, the WPC Manager must create sampling location identifiers for the new locations. The additional sampling location shall be shown on the WPCDs in Attachment H.

N/A

1103.3 Sampling Schedule

Whenever there are dewatering discharges or impounded stormwater discharges, sampling will be performed daily during discharging. Sampling will be performed upon commencement of the dewatering discharge or impounded stormwater discharge, and then daily.

N/A

1104 Sample Collection and Handling

Refer to the general requirements for sample collection and handling in General SAP Section 905.

1104.1 Sample Collection Procedures

Refer to the general procedures for sample collection in General SAP Section 905.1.

1104.2 Sample Handling Procedures

Refer to the general procedures for sample handling in General SAP Section 905.2.

1104.3 Sample Documentation Procedures

In addition to the general procedures for sample documentation in General SAP Section 905.3, when applicable, the WPC Manager will document on the DOT CEM-2030SW Stormwater Site Inspection Report Form that samples for non-stormwater discharge pollutants were taken based on a visual monitoring site inspection.

1105 Sample Analysis

Samples from non-stormwater discharges shall be analyzed for pH and turbidity at a minimum.
The WPC Manager may determine that samples of non-stormwater discharges, need to be analyzed for non-visible pollutants. If the WPC Manager determines that non-visible pollutants may have contaminated the discharge, the samples shall be analyzed for the suspected pollutants. Sampling and analysis for non-visible pollutants in non-stormwater discharges shall be performed following the guidance in Section 1000, the SAP for non-visible pollutants.

Samples shall be analyzed for the constituents indicated in the following table, titled "Sample Collection, Preservation and Analysis for Monitoring Water Extracted by Dewatering or Impounded Stormwater Discharges."

TABLE 1105
SAMPLE COLLECTION, PRESERVATION AND ANALYSIS FOR MONITORING WATER EXTRACTED BY DEWATERING OR IMPOUNDED STORMWATER DISCHARGES

Parameter	Test Method	Sample Preservation	Minimum Sample Volume(1)	Sample Bottle	Maximum Holding Time	Detection Limit (min)
□□r□d□□	□□□d □□□□□□ □□□□ □□□□r□□□d□ □□r□□□□□ □□□r□□ □□□	□□□r□□□□□° C □3□2° F)	100□□ □	□□□□r□□□□□□□r□ □ □□□□	□□□□□□r□	1□□ □□

pH	□□□d□□□□□□□ith□ calib□rate d□ □or□tabl□ □□str□ment	Sto□re□at □° C □39□2° F)	100□□ □	P□□yp□opylen □	15□M□□□□□□	0□2

Notes: 1. Minimum sample volume recommended. Specific volume requirements will vary by instrument; check instrument manufacturer instructions.

°C - degrees Celsius
°F - degrees Fahrenheit
L - liter
Ml - milliliters
NTU - Nephelometric Turbidity Unit

1106 Quality Assurance/Quality Control

Refer to the general requirements regarding Quality Assurance/Quality Control (QA/QC) in Section General SAP 907.

The contractor shall coordinate with the RE on sampling locations and timing for quality assurance verification of field sampling and analysis. The contractor shall notify the RE at least 24 hours prior to dewatering discharge or impounded stormwater discharge sampling events.

1107 Data Management and Reporting

Refer to the general requirements for data management and reporting in General SAP Section 908.

1108 Data Evaluation

An evaluation of the water quality sample analytical results, including sampling locations and the QA/QC data, shall be submitted to the RE when daily dewatering discharges occur. Should the dewatering discharge concentrations exceed applicable water quality standards, discharging will be stopped immediateley and the WPC Manager and/ QSD or shall evaluate the dewatering BMPs to determine the probable cause for the exceedance.

As determined by the data evaluation and project site (assessment including NAL exceedances), appropriate BMPs shall be repaired or modified to mitigate the exceedances. Any revisions/design changes to BMPs shall be implemented based on an amendment to the SWPPP.

1109 Changes of Conditions

Refer to the general requirements for changes of conditions in General SAP Section 910.

1200 Sampling and Analysis Plan for Stormwater pH and Turbidity

This SAP has been prepared for monitoring pH and turbidity in stormwater discharges from the project site and off-site activities directly related to the project in accordance with the requirements of the CGP and applicable requirements of the Caltrans Construction Site Monitoring Program Guidance Manual, August 2013. This SAP for monitoring includes all of the components listed in Section 901.

1201 Scope of Monitoring Activities

The scope of monitoring for this SAP includes monitoring for pH and turbidity in stormwater discharges from the project site and, run-on to the project site if necessary, based on exceedances tested in the discharge samples.

This project discharges into , a water body that is sediment-sensitive. Monitoring of the receiving water will be required when direct discharges to the receiving water.

1202 Monitoring Preparation

Refer to the general requirements for monitoring preparation in General SAP Section 903.

1202.1 Qualified Sampling Personnel

Refer to the general requirements for Qualified Sampling Personnel in General SAP Section 903.1.

1202.2 Monitoring Supplies

Refer to the general information regarding monitoring supplies in General SAP Section 903.2.

1202.3 Field Instruments

Refer to the general information regarding field instruments in General SAP Section903.3.

1202.4 Testing Laboratory

Refer to the contact information for the testing laboratory found in General SAP Section 903.4.

1203 Monitoring Strategy

Monitor representative stormwater discharges from the project site for pH and turbidity during qualifying rain events (a rain event that has produced precipitation in the form of rain and produced run-off at the time of discharge).

1203.1 Analytical Constituents

Stormwater discharge samples are to be analyzed for pH and turbidity.

1203.2 Potential Sampling Locations

Using the criteria in Section 904.2, the potential sampling locations on the project site for monitoring pH and turbidity were identified. Potential sampling locations for monitoring stormwater discharges for pH and turbidity are based on drainage areas; run-on and runoff locations; accessibility for sampling and personnel safety; and other factors in accordance with the applicable requirements in the Caltrans Construction Site Monitoring Program Guidance Manual, August 2013. Stormwater discharge locations shall be shown on the WPCDs in Attachment H.

The stormwater discharge locations on the project site are listed in Table 1203.2.1 "Stormwater Discharge Locations."

TABLE 1203.2.1
STORMWATER DISCHARGE LOCATIONS

Sampling Location Identifier	Location	Latitude	Longitude	
□/□	□/□	□/□	□/□	

N/A

The project does not receive run-on with the potential to combine with stormwater discharges.

1203.3 Actual Sampling Locations

The WPC Manager shall select sampling locations from the list of potential sampling locations for stormwater discharge sampling shown on the WPCDs from Attachment H. If the construction activity has not started within the drainage area at a sampling location, and there is no disturbed soil within a drainage area, sampling from the stormwater discharge location from that drainage area is not required.

Within 72 to 48 hours prior to each forecasted storm event, the WPC Manager must identify the drainage areas that must be sampled. To identify these drainage areas, the WPC Manager must refer to the WPCDs and consider the conditions described below and activities within each drainage area that could have an effect on the stormwater discharge pH or turbidity.

1. Turbidity: The area of the disturbed soil at the time of precipitation could have an impact on the stormwater run-off turbidity. The area of the disturbed soil at the time of predicted precipitation must be expressed as a percentage of the total drainage area. It is reasonable to assume that a larger percentage of disturbed soil area could result in a more turbid run-off.
2. pH: The type of construction activities that could have an impact on stormwater run-off pH (for example, concrete work and saw cutting, lime stabilization work, use of crushed concrete, etc).

None

1203.4 Sampling Schedule

Current weather forecast monitoring should be used to try to time the site visit to obtain the samples after runoff begins discharging from the project site. Discharge samples shall be collected for turbidity and pH for storm events that result in a discharge from the project site. When applicable, upstream, downstream, and run-on samples shall be collected for analysis of turbidity and pH. Sampling and testing for turbidity and pH will be performed daily during all qualifying precipitation events. Samples shall be collected during working hours.

If stormwater sampling is unsafe because of dangerous weather conditions, such as flooding and electrical storms, then the stormwater sampler shall document the conditions resulting in the sampling not being performed as planned.

None

1204 Sample Collection and Handling

Refer to the general requirements for sample collection and handling in General SAP Section 905.

1204.1 Sample Collection Procedures

In addition to the general procedures for sample collection in General SAP Section 905.1, the procedures described below apply to sample collection for monitoring of pH and turbidity.

- Grab samples shall be collected and preserved in accordance with the methods identified in Table 1205.1. Sample Collection, Preservation and Analysis for Monitoring Turbidity and pH, provided in Section 1205.
- Only personnel trained in proper water quality sampling shall collect samples.

1204.2 Sample Handling Procedures

Refer to the general procedures for sample handling in General SAP Section 905.2.

1204.3 Sample Documentation Procedures

Refer to the general procedures for sample documentation in General SAP Section 905.3.

1205 Sample Analysis

Samples shall be analyzed for the constituents indicated in Table 1205.1: “Sample Collection, Preservation and Analysis for Monitoring Turbidity and pH.”

TABLE 1205.1
SAMPLE COLLECTION, PRESERVATION AND ANALYSIS FOR MONITORING TURBIDITY AND PH

Parameter	Test Method	Sample Bottle	Minimum Sample Volume(1)	Sample Preservation	Maximum Holding Time	Detection Limit (min)
□□r□d□□□	□□□d□test w□th□ □□□□r□□□d□□□r□□□□□□ ins□rume□t	Po□yp r□pylen □□□r□ Glass	100□□ □	□□□r□□at 4˚C (}□2˚F)	48□ho□rs	1□NTU
□□	□□□d□test w□th□ □□□□r□□□d□□□r□□□□□□ ins□rume□t	□olyp ro□□le□e	100□□ □	□□□r□□at 4˚C □3□2˚F)	1□□□ □□□□□□	0□2

Acronyms/Notes:

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1206 Quality Assurance/Quality Control

Refer to the general requirements regarding Quality Assurance/Quality Control (QA/QC) in General SAP Section 907. The following replaces the requirements for QA/QC in Section 907 for turbidity and pH quality assurance testing.

1207 Data Management and Reporting

Refer to general requirements for data management and reporting in General SAP Section 908.

In addition to the general requirements for data management and reporting in Section 908, the additional reporting described below is required.

Numeric Action Limit Exceedance Reporting - This project is subject to NALs for pH and turbidity as shown in Table 1207.1 "NALs for Monitoring pH and Turbidity."

TABLE 1207.1
NALs FOR MONITORING pH AND TURBIDITY

Parameter	Test Method	Detection Limit (min)	Unit	Numeric Action Level
□□	□□□□d□□□□□□□ □□□□□□□□□r□□□d□ □□r□□□□□□□□□□r□□ □□□□	0□2	□□ □□□□□□□	□□□ □r□□ □ □□□□□□□□ □ □□□□r□□ □ □□□□□□□□
□□r□□d□□□	□□□□d□□□□□□□ □□□□□□□□□r□□□d□ □□r□□□□□□□□□□r□□ □□□□	1□□ □□	□ □□	2□0□□ □□

Acronyms:

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If the NAL for pH or turbidity or both are exceeded, then form DOT CEM-2062SW Numeric Action Level Exceedance Report Form will be completed and submitted to the RE within 48 hours after the sampling and analysis event. The NAL Exceedance Report will include:

- Test results, analytical methods, reporting units, and detection limits;
- Date, sampling location, time of sampling, and visual observations;
- Predicted quantity of precipitation of the forecasted storm event, and estimated quantity of precipitation at the time of sampling;
- Description of BMPs; and
- Corrective actions taken to manage the NAL exceedance.

Once deemed necessary, corrective actions shall be immediately implemented and documented. Appendix I contains the DOT CEM-2035SW Stormwater Corrective Actions Summary form and Appendix M contains the DOT CEM-2062SW NAL Exceedance Report form. NAL exceedance reports will be filed in SWPPP File Category 20.62: Numeric Action Level Exceedance Reports.

1208 Data Evaluation

An evaluation of the water quality sample analytical results, including sampling locations and the QA/QC data, shall be submitted to the RE for every day of stormwater sampling. If the stormwater discharge concentrations exceed applicable water quality standards, the WPC Manager or other personnel shall evaluate the project site BMPs to determine the probable cause for the exceedance.

As determined by the data evaluation and project site assessment, appropriate BMPs shall be repaired or modified to mitigate the exceedances. Any revisions/design changes to BMPs shall be implemented based on an amendment to the SWPPP. The QSD must perform a site inspection and complete form DOT-CEM 2030SW Stormwater Site Inspection Report within 14 days of an NAL exceedance.

1209 Change of Condition

Refer to the general requirements for changes of conditions in General SAP Section 910.

1300 Sampling and Analysis Plan for Monitoring Required by the Regional Board

This project does not require a Sampling and Analysis Plan for Monitoring required by a RWQCB.

1400 Sampling and Analysis Plan for Monitoring of Active Treatment System

This project does not require a SAP for an ATS because deployment of such a system is not planned.

1900 RUSLE2 REQUIREMENTS

1901 Surface Water Buffer

This Project must complete RUSLE2 modeling based on this project having either a surface water buffer, that is work above the top-of-bank or high-water level of waters of the United States.
The CGP requires that projects provide and maintain natural buffers and/or equivalent erosion and sediment controls when a water of the U.S. is located within 50 feet of the site's DSA.
If the project is subject to a CWA 401 or 404 certification or permit, this requirement does not apply as measures are included in those permits already. Another exemption is where there is no natural surface water buffer.
This project is complying with one of the following alternatives for any discharges to waters of the U.S. located within 50 feet of a site's earth disturbances:

☑ Provide and maintain a 50-foot undisturbed natural buffer from the edge of the disturbed area to the top of bank;

☐ Provide and maintain an undisturbed natural buffer that is less than 50 feet and is supplemented by erosion and sediment controls that achieve, in combination, the sediment load reduction equivalent to a 50-foot undisturbed natural buffer. The equivalent sediment load may be calculated using RUSLE2 or another method approved by the Regional Water Board; or

☐ Implement erosion and sediment controls to achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer when infeasible to provide and maintain an undisturbed natural buffer of any size. The equivalent sediment load may be calculated using RUSLE2 or another method approved by the Regional Water Board.

The RUSLE2 documentation is included in Attachment J: RUSLE2 Outputs.

1902 The RUSLE 2 Modeling for TMDL is not triggered for this project.

SECTION 2000
POST-CONSTRUCTION CONTROL PRACTICES

2000.1 Post-Construction Control Practices

Approved Treatment BMPs for the project site:

- Vegetated Surfaces

Design Pollution Prevention (DDPs) BMPs for the project site:

- None

2000.2 Post-Construction Operation/Maintenance

The post-construction BMPs that are listed above will be funded and maintained in the following manner.

- short-term funding: Project Budget
- long-term funding: County of Fresno

The responsible party for the long-term maintenance of post-construction BMPs is County of Fresno

SECTION 2100
SWPPP REPORTING REQUIREMENTS

2100.1 Recordkeeping

To manage the various documents required by the SWPPP and to provide easy access to the documents, the following SWPPP file categories will be used to file SWPPP compliance documents:

File Category 20.01 .....Stormwater Pollution Prevention Plan (SWPPP)
File Category 20.02 .....Stormwater Pollution Prevention Plan Amendments
File Category 20.03 .....Water Pollution Control Schedule Updates
File Category 20.05 .....Notice of Intent
File Category 20.06 .....Legally Responsible Person Authorization of Duly Authorized Representative
File Category 20.10 .....Correspondence
File Category 20.21 .....Subcontractor Contact Information and Notification Letters
File Category 20.22 .....Material Suppliers Contact Information and Notification Letters
File Category 20.23 .....Contractor Personnel Training Documentation
File Category 20.31 .....Contractor Stormwater Site Inspection Reports
File Category 20.32 .....Caltrans Stormwater Site Inspection Reports
File Category 20.33 .....Site Visual Monitoring Inspection Reports
File Category 20.35 .....Corrective Actions Summary
File Category 20.40 .....Weather Monitoring Logs
File Category 20.46 .....Sampling and Analysis Plan
File Category 20.50 .....Non-Stormwater and Dewatering Discharge Sampling and Test Results
File Category 20.51 .....Non-Visible Pollutant Sampling and Test Results
File Category 20.52 .....Turbidity, pH Sampling and Test Results
File Category 20.53 .....Required Regional Water Board Monitoring Sampling and Test Results
File Category 20.54 .....ATS Monitoring Sampling and Test Results
File Category 20.55 .....Field Testing Equipment Maintenance and Calibration Records
File Category 20.61 .....Notice of Discharge Reports
File Category 20.62 .....Numeric Action Level Exceedance Reports
File Category 20.63 .....Numeric Effluent Limitation Violation Reports
File Category 20.80 .....Stormwater Annual Reports
File Category 20.90 .....Notice of Termination

Records shall be retained for a minimum of three years for the following items:

- approved SWPPP document and amendments

- Stormwater Site Inspection Reports
- Notice of Discharge Reports
- Numeric Action Limit (NAL) Exceedance Reports
- Numeric Effluent Limitaion (NEL) Violation Reports
- sampling records and analysis reports
- copies of all applicable permits

2100.2 Stormwater Annual Report

A Stormwater Annual Report will be prepared for this project to document the stormwater monitoring information and training information.

The stormwater monitoring information listed below shall be included in the Stormwater Annual Report.

- A summary and evaluation of all sampling and analysis results, including copies of laboratory reports.
- The analytical method(s), method reporting unit(s), and method detection limit(s) of each analytical parameter.
- A summary of all corrective actions taken during the compliance year.
- Identification of any compliance activities or corrective actions that were not implemented.
- •A summary of all violations of the CGP.
- The names of individual(s) who performed site inspections, sampling, site visual monitoring inspections and/or measurements.
- The date, place, and time of site inspections, sampling, site visual monitoring inspections, and/or measurements, including precipitation (rain gauge).
- Any site visual monitoring inspection and sample collection exception records.

The stormwater training information listed below shall be included in the Stormwater Annual Report.

- Documentation of all training for individuals responsible for all activities associated with compliance with the CGP.
- Documentation of all training for individuals responsible for BMP installation, inspection, maintenance, and repair.
- Documentation of all training for individuals responsible for overseeing, revising and amending the SWPPP.

2100.3 Discharge Reporting

If an unauthorized discharge is discovered or evidence of a previously unseen discharge is discovered, the Contractor shall notify the RE and file a written report with the RE within 24 hours after the discovery. The written report to the RE will contain the following items:

- date, time, location, and type of unauthorized discharge
- nature of operation that caused the discharge

- initial assessment of any impacts caused by the discharge
- BMPs deployed before the discharge event and date(s) of deployment
- BMPs deployed after the discharge event, including re-installation, maintenance or repair of initial BMPs
- steps taken or planned to reduce, eliminate and/or prevent recurrence of the discharge

Reporting of discharges shall be documented on the DOT CEM-2061SW Notice of Discharge form in Appendix L. Completed DOT CEM-2061SW Notice of Discharge forms shall be submitted to the RE within 24 hours after the discharge event or discovery of evidence of a prior discharge. Copies of completed forms will be kept in File Category 20.61: Notice of Discharge Reports.

If a NAL or NEL is exceeded, notify the Engineer and submit an exceedance report within 48 hours after the conclusion of a qualifying precipitation event. In addition, an inspection report must be completed within 14 days after an NAL exceedance. The report must include:

- Field sampling results and inspections, including:
  - Analytical methods, reporting units, and detection limits
  - Date, location, time of sampling, visual observations, and measurements
  - Quantity of precipitation from the storm event
- Description of the BMPs and corrective actions taken to manage the exceedance

2100.4 Regulatory Agency Notice or Order Reporting

If a written notice or order is issued to the project by any regulatory agency, the Contractor will notify of receiving the notice or order and will file a written report to the RE within 48 hours of receiving the notice or order. Corrective measures will be implemented immediately following receipt of the notice or order.

The report to the RE will contain the following items

- the date, time, location, and cause or nature of the notice or order
- the BMPs deployed prior to receiving the notice or order
- the date of deployment and type of BMPs deployed after receiving the notice or order, including additional BMPs installed or planned to reduce or prevent recurrence
- an implementation and maintenance schedule for any affected BMPs

2100.5 Illegal Connection/Illicit Discharge Reporting

If the Contractor discovers an illegal connection to a storm drain system or any pipe discharging onto the project site, not shown on the project plans, the Contractor shall notify of the discovery and shall file a written report to the RE within 48 hours of the discovery.

If the Contractor discovers any illicit discharge, including illegal disposing of material on the project site, the Contractor shall immediately notify the RE.

The report to the RE will contain the following items:

- the date, time, and location of the discovery

- the details for the illegal connection or illicit discharge, including any photographs taken
- any actions taken to contain the illicit discharge
- any sampling and testing performed on material that was illegally disposed of or discharged

	A	B	C
1	**Sediment Risk Factor Worksheet**		**Entry**
2	**A) R Factor**		
3	Analyses of data indicated that when factors other than rainfall are held constant, soil loss is directly proportional to a rainfall factor composed of total storm kinetic energy (E) times the maximum 30-min intensity (I30) (Wischmeier and Smith, 1958). The numerical value of R is the average annual sum of EI30 for storm events during a rainfall record of at least 22 years. "Isoerodent" maps were developed based on R values calculated for more than 1000 locations in the Western U.S. Refer to the link below to determine the R factor for the project site.		
4	http://cfpub.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm		
5	**R Factor Value**		3.73
6	**B) K Factor (weighted average, by area, for all site soils)**		
7	The soil-erodibility factor K represents: (1) susceptibility of soil or surface material to erosion, (2) transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because of high infiltration resulting in low runoff even though these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high rates and large volumes of runoff. Use Site-specific data must be submitted.		
8	Site-specific K factor guidance		
9	**K Factor Value**		0.32
10	**C) LS Factor (weighted average, by area, for all slopes)**		
11	The effect of topography on erosion is accounted for by the LS factor, which combines the effects of a hillslope-length factor, L, and a hillslope-gradient factor, S. Generally speaking, as hillslope length and/or hillslope gradient increase, soil loss increases. As hillslope length increases, total soil loss and soil loss per unit area increase due to the progressive accumulation of runoff in the downslope direction. As the hillslope gradient increases, the velocity and erosivity of runoff increases. Use the LS table located in separate tab of this spreadsheet to determine LS factors. Estimate the weighted LS for the site prior to construction.		
12	LS Table		
13	**LS Factor Value**		4.97
14			
15	**Watershed Erosion Estimate (=RxKxLS) in tons/acre**		5.932192
16	**Site Sediment Risk Factor**		**Low**
17	Low Sediment Risk: < 15 tons/acre		
18	Medium Sediment Risk: >=15 and <75 tons/acre		
19	High Sediment Risk: >= 75 tons/acre		
20			

Location:

-119.36075636155371 , 36.820619539674624 **Search**

3 Click the "Calculate R Factor" button below.

Calculate R Factor

Facility Information

Start Date: 04/07/2025	**Latitude:** 36.8206
End Date: 10/07/2025	**Longitude:** -119.3608

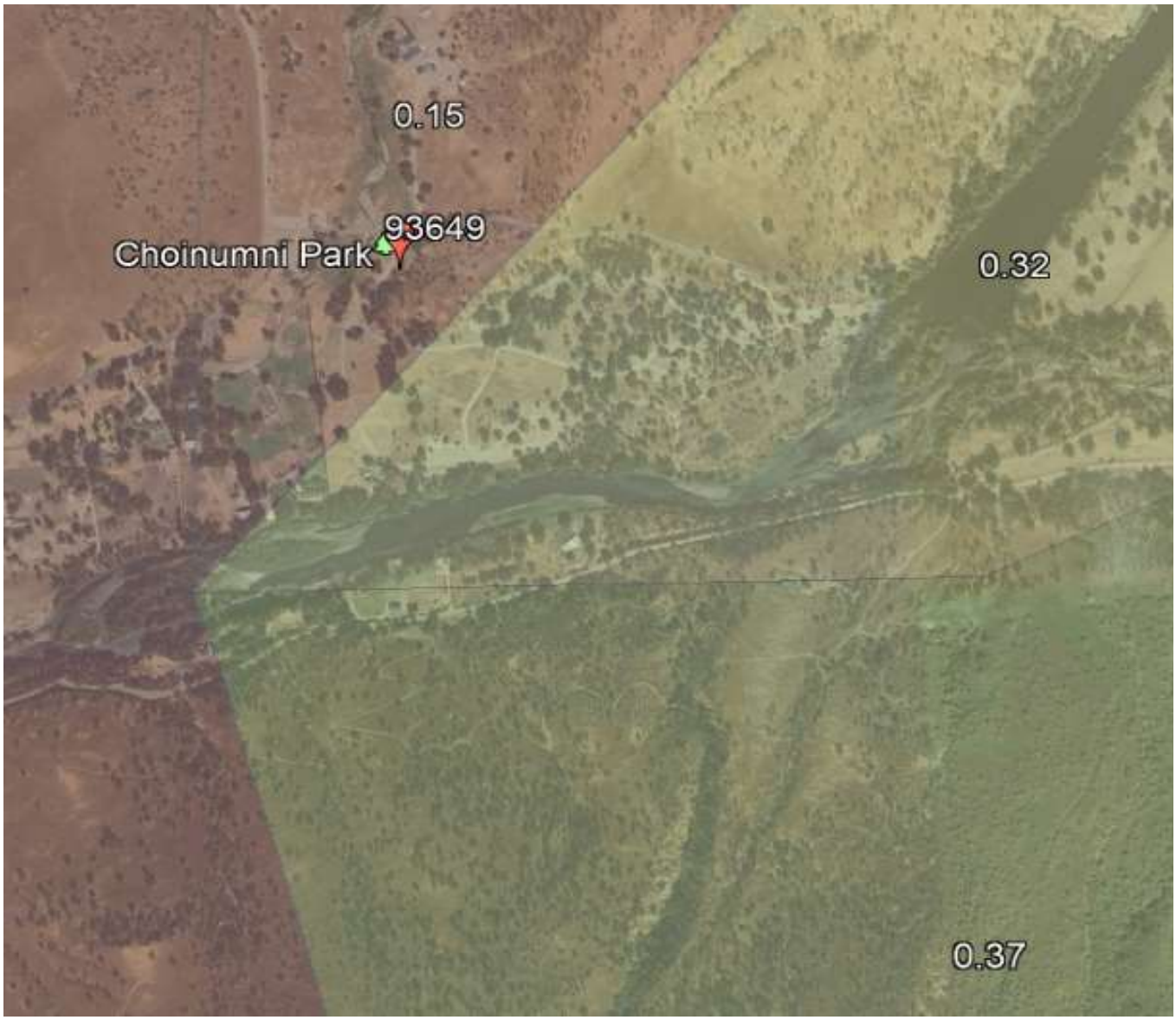
Calculation Results

Rainfall erosivity factor (R Factor) = 3.73

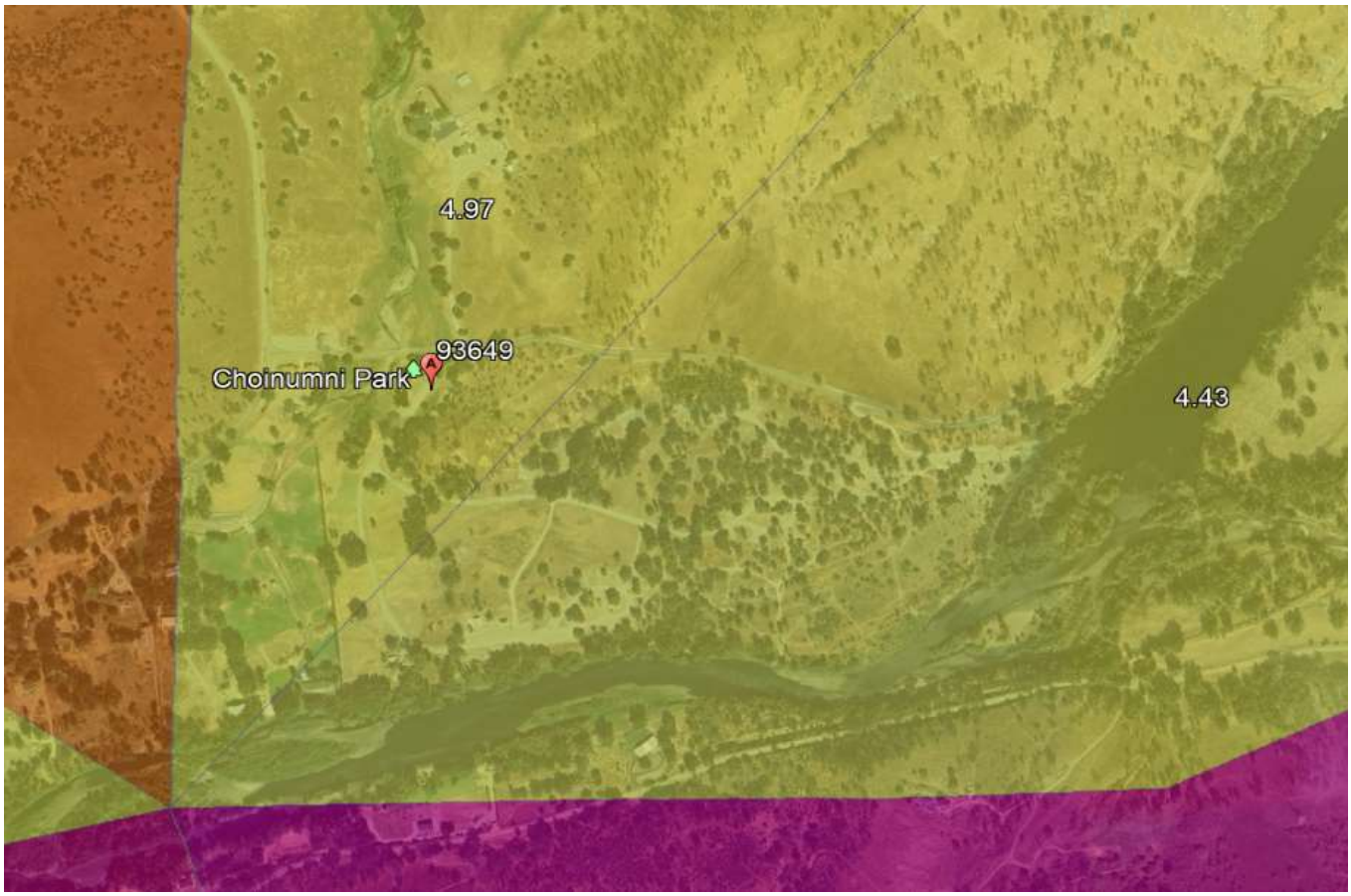
A rainfall erosivity factor of less than 5.0 has been calculated for your site and period of construction. If you are located in an area where EPA is the permitting authority (pdf), you can submit a LEW through EPA's NPDES eReporting Tool (NeT). Otherwise, contact your state permitting authority to determine if you are eligible for a waiver from NPDES permitting requirements.

If you submitted a LEW through EPA's NeT and your construction activity ultimately extends past the project completion date you specified above, you must recalculate the R factor using the original start date and a new project completion date. If the recalculated R factor is still less than 5.0, you must submit a modification to your LEW through NeT before the end of the original construction period. If the new R factor is 5.0 or greater, you must submit a Notice of Intent (NOI) instead to be covered by the Construction General Permit (CGP) before the original project completion date.

R-FACTOR



K-FACTOR



LS-FACTOR

Receiving Water (RW) Risk Factor Worksheet	Entry	Score
A. Watershed Characteristics	**yes/no**	
A.1. Does the disturbed area discharge (either directly or indirectly) to a **303(d)-listed waterbody impaired by sediment** (For help with impaired waterbodies please visit the link below) or has a **USEPA approved TMDL implementation plan for sediment**?:	**yes**	**High**
http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml		
OR		
A.2. Does the disturbed area discharge to a waterbody with designated beneficial uses of SPAWN & COLD & MIGRATORY? (For help please review the appropriate Regional Board Basin Plan)		
http://www.waterboards.ca.gov/waterboards_map.shtml		
Region 1 Basin Plan		
Region 2 Basin Plan		
Region 3 Basin Plan		
Region 4 Basin Plan		
Region 5 Basin Plan		
Region 6 Basin Plan		
Region 7 Basin Plan		
Region 8 Basin Plan		
Region 9 Basin Plan		

2010 Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report) — Statewide

2010 INTEGRATED REPORT — 303(D) LISTED WATERS

Zoom to county: All
Show county

Zoom to Regional Board: All
Show Regional Board

Map Help

Zoom to water body: *(Filter: All)*
Filter list by: | Reset list

Show all assessed waters
Show only impaired ("303(d)-listed") waters

Show water bodies by pollutant:

Pollutant category: *All*
All

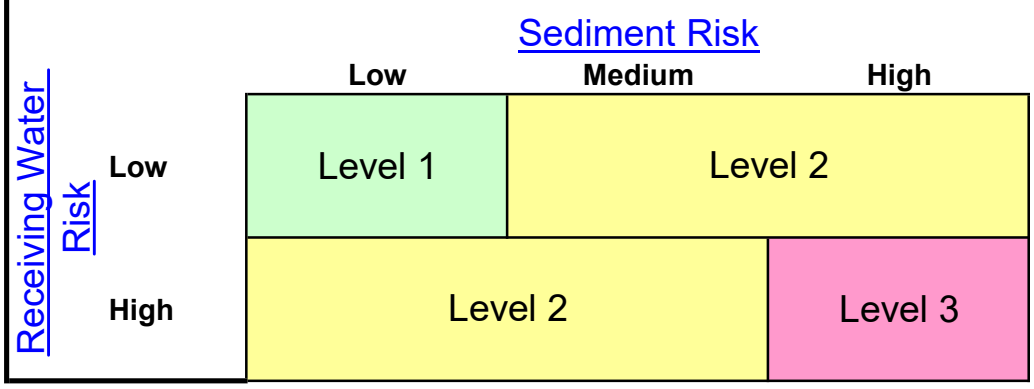
Pollutant: *All*
All

Reset filters

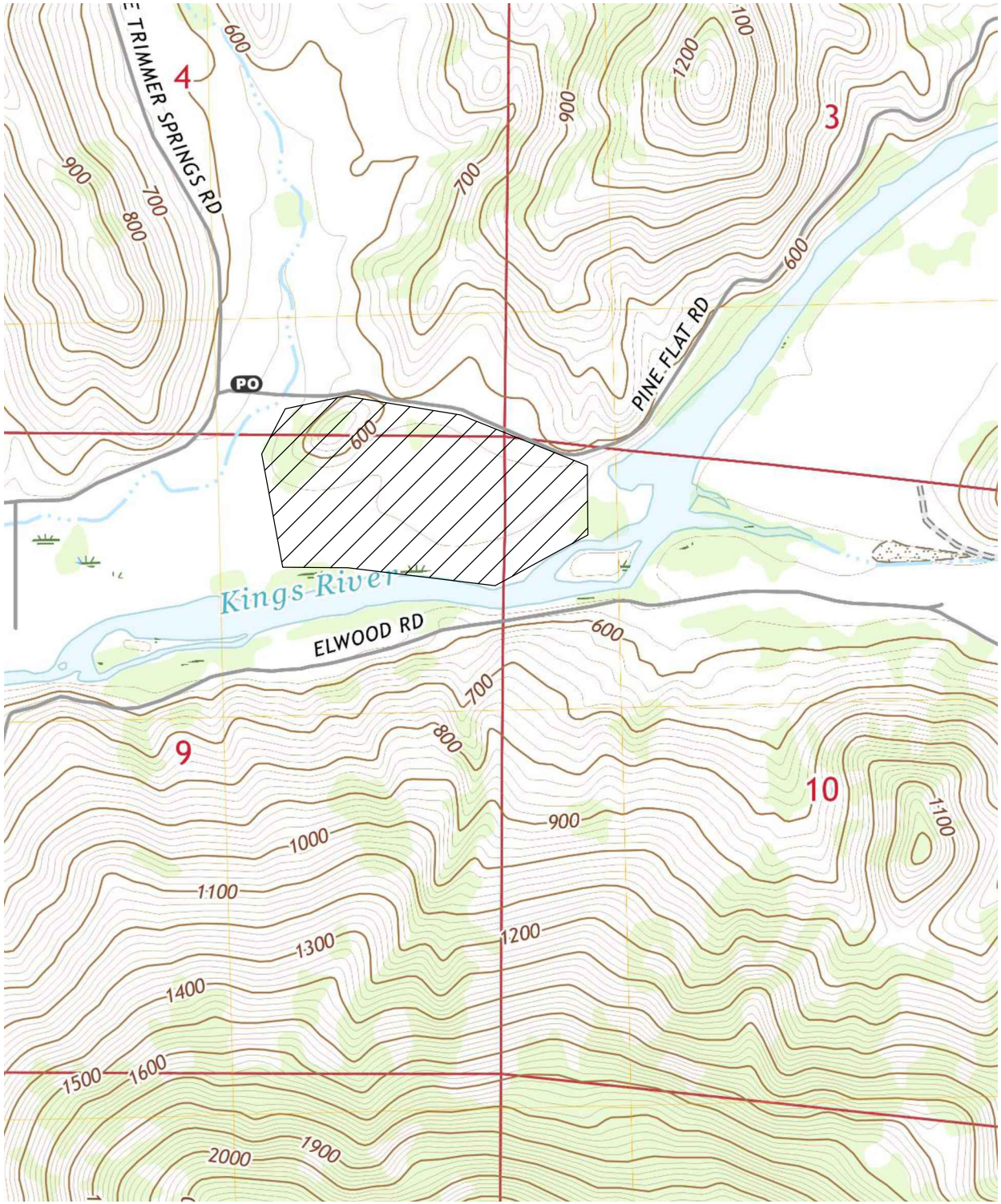
This Webinar walks the user through the Integrated Report and its geospatial information system (GIS) map.

- Geographical Information Systems (GIS) Files
  Update 12/23/11: The information presented on this map reflects the final USEPA-approved 2010 303(d) list. If you have any questions regarding the Integrated Report data and information, please email Lori Webber or call 916-341-5736. For any GIS-related questions, please email Nirmal Sandhar or call (916)341-5571.

Combined Risk Level Matrix



Project Sediment Risk:	**Low**
Project RW Risk:	**High**
Project Combined Risk:	**Level 2**



LEGEND

PROJECT AREA

N

NTS

V & M CONSULTING ENGINEERS

ENGINEERING PLANS FOR:
CHOINUMNI PARK IMPROVEMENTS - SWPPP

SHEET TITLE:
VICINITY MAP

REVISIONS

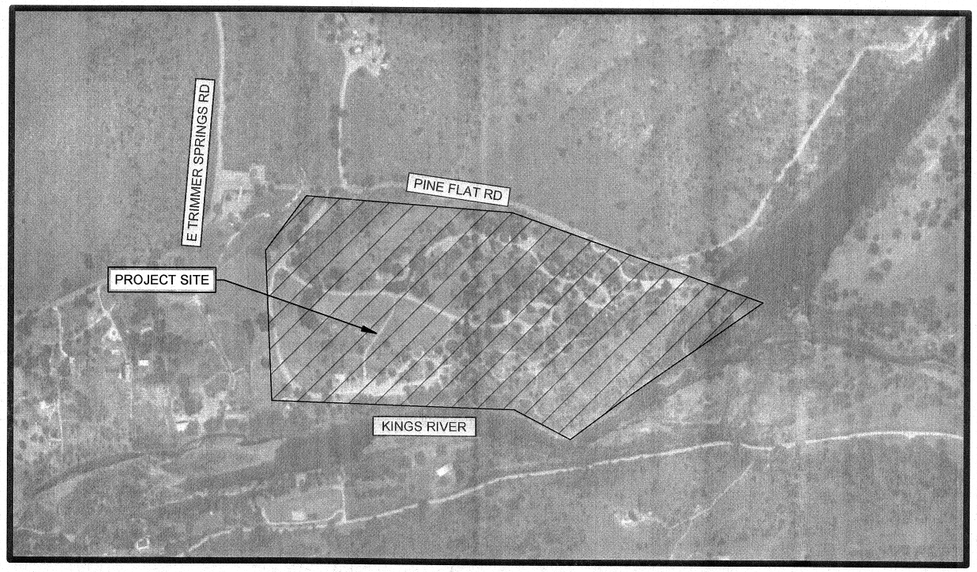
SCALE: NTS
JOB NO: 11329
QA/QC: OM
FILE: VICINITY MAP.dwg
DATE: 12/5/2024

SHEET NO.
1
OF 1

PLANS FOR CONSTRUCTION

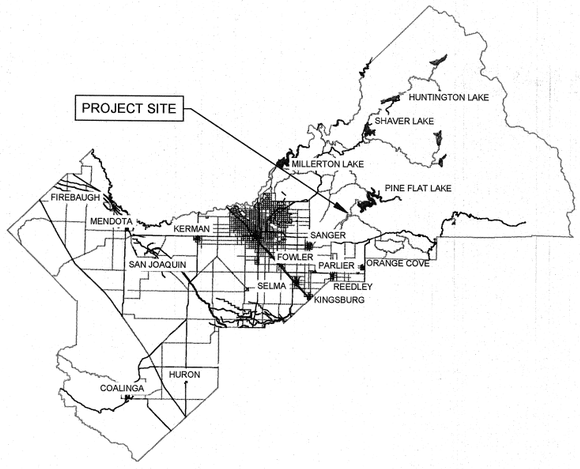
CHOINUMNI PARK IMPROVEMENTS

26501 PINE FLAT RD
SANGER, CA 93657



VICINITY MAP
FRESNO COUNTY

N
NTS



811 Know what's below. Call 811 before you dig.

THE COUNTY OF FRESNO 1856

DEPARTMENT OF PUBLIC WORKS AND PLANNING

INDEX OF SHEETS

TS-1.01 - TITLE SHEET
TS-1.02 - ABBREVIATIONS & LEGEND
RS-1.01 - REFERENCE PLAN
DM-1.01 - DEMOLITION REFERENCE SHEET
DM-1.02 - DEMOLITION PLAN
DM-1.03 - DEMOLITION PLAN
DM-1.04 - DEMOLITION PLAN
DM-1.05 - DEMOLITION PLAN
GR-1.01 - GRADING AND DRAINAGE REFERENCE PLAN
GR-1.02 - GRADING AND DRAINAGE PLAN
GR-1.03 - GRADING AND DRAINAGE PLAN
GR-1.04 - GRADING AND DRAINAGE PLAN
GR-1.05 - GRADING AND DRAINAGE PLAN
GR-1.06 - GRADING AND DRAINAGE PLAN
GR-1.07 - GRADING AND DRAINAGE PLAN
GR-1.08 - GRADING AND DRAINAGE PLAN
GR-1.09 - GRADING AND DRAINAGE PLAN
GR-1.10 - GRADING AND DRAINAGE PLAN
GR-1.11 - GRADING AND DRAINAGE PLAN
GR-1.12 - GRADING AND DRAINAGE PLAN
GR-1.13 - GRADING AND DRAINAGE PLAN
GR-1.14 - GRADING AND DRAINAGE PLAN
GR-1.15 - GRADING AND DRAINAGE PLAN
CD-1.01 - IMPROVEMENTS & FURNISHINGS REFERENCE SHEET
CD-1.02 - IMPROVEMENTS & FURNISHINGS PLAN
CD-1.03 - IMPROVEMENTS & FURNISHINGS PLAN
CD-1.04 - IMPROVEMENTS & FURNISHINGS PLAN
CD-1.05 - IMPROVEMENTS & FURNISHINGS PLAN
CD-1.06 - IMPROVEMENTS & FURNISHINGS PLAN
CD-1.07 - IMPROVEMENTS & FURNISHINGS PLAN
CD-1.08 - IMPROVEMENTS & FURNISHINGS DETAILS
CD-1.09 - IMPROVEMENTS & FURNISHINGS DETAILS
CD-2.01 - LIGHTING REFERENCE PLAN
CD-2.02 - LIGHTING PLAN
CD-2.03 - LIGHTING PLAN
CD-3.01 - WALKING PATH & HIKING TRAIL REFERENCE SHEET
CD-3.02 - WALKING PATH LINE A STA 10+00 TO STA 18+00
CD-3.03 - WALKING PATH LINE A STA 18+00 TO STA 26+65
CD-3.04 - WALKING PATH LINE B STA 10+00 TO STA 18+22
CD-3.05 - WALKING PATH LINE C STA 10+00 TO STA 14+07
CD-3.06 - WALKING PATH LINE D STA 10+00 TO STA 15+06 & MAZE PATH
CD-3.07 - HIKING TRAIL LINE E STA 10+00 TO STA 23+00
CD-3.08 - HIKING TRAIL LINE E STA 23+00 TO STA 28+04
CD-4.01 - MULTI-AGE PLAYGROUND SITE 1
CD-4.02 - MULTI-AGE PLAYGROUND SITE 2
CD-5.01 - SPORTS COURTS PLAN
CD-5.02 - SPORTS COURTS DETAILS
CD-6.01 - PRE-FABRICATED RESTROOM PLAN
CD-6.02 - PRE-FABRICATED RESTROOM ELECTRICAL DETAILS
CD-6.03 - PRE-FABRICATED RESTROOM CONSTRUCTION DETAILS
CD-7.01 - SEWAGE SYSTEM PLAN
CD-8.01 - HOSE BIB PLAN
CD-8.02 - HOSE BIB DETAILS
CD-9.01 - STRIPING, SIGNAGE & MARKINGS PLAN
CD-9.02 - STRIPING, SIGNAGE & MARKINGS PLAN
CD-9.03 - STRIPING, SIGNAGE & MARKINGS DETAILS
CD-9.04 - STRIPING, SIGNAGE & MARKINGS DETAILS
CD-10.01 - ASPHALT REHABILITATION PLAN
E-1.01 - ELECTRICAL SITE PLAN
E-1.02 - ELECTRICAL SCHEDULE
E-1.03 - ELECTRICAL DETAILS

Buddy Mendes	Chairman	4th District
Garry Bredefeld	Vice Chairman	2nd District
Brian Pacheco		1st District
Luis Chavez		3rd District
Nathan Magsig		5th District

Paul Nerland
County Administrative Officer

APPROVED _____

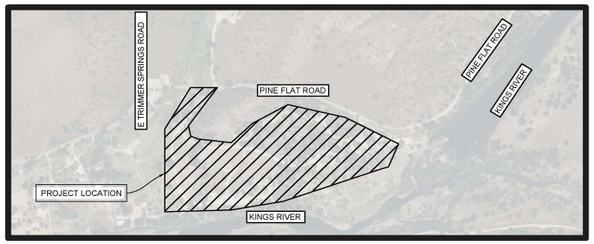
Steven E. White, Director
Department of Public Works and Planning

DIVISION	DESIGN	CONST	RMO	RESC
SIGNATURE				DA
DATE	12/5/2024			12/5/2024

CALIFORNIA CONTRACTOR'S LICENSES REQUIRED FOR THIS PROJECT					
CLASS A, GENERAL ENGINEERING					
DRAWING NO.	ROAD NO.	BRIDGE NO.	FISCAL YR.	SHEET NO.	TOTAL
11329		N/A	24 / 25	1	61
CONTRACT NO. 24-24-PR					

RECORD DRAWING		
CONTRACTOR		
NAME		
ADDRESS		
CITY	STATE	ZIP
PHONE		
DATE AWARDED		
DATE STARTED		
DATE COMPLETED		
RESIDENT ENGINEER		
NAME	SIGNATURE	
NAME	SIGNATURE	

December 05, 2024



PROJECT LOCATION

COUNTY OF FRESNO

GENERAL SITE NOTES

1. ANY GRADING OR SOIL DISTURBING ACITIVITIES SHALL NOT BE STARTED UNTIL THE STATE WATER RESOURCES CONTROL BOARD HAS APPROVED THE NOTICE OF INTENT (NOI) APPLICATION AND HAVE RECEIVED PAYMENT.
2. CONTRACTOR SHALL CONDUCT STREET SWEEPING AS NECESSARY TO PREVENT SOIL FROM LEAVING THE CONSTRUCTION AREA.
3. MAXIMUM ALLOWED SPEED LIMIT ON-SITE SHALL BE 15 MPH. CONTRACTOR SHALL POST A 15 MPH MAX SPEED LIMIT SIGN ON-SITE.

CONTRACTOR & QSD CONTACTS

CONTRACTOR

CIVIL ENGINEER
A&M CONSULTING ENGINEERS
220 N LOCUST STREET
VISALIA, CA 93291
ATTN: ORFIL MUNIZ, PE, QSD
(559) 429-4747

STORM WATER MANAGEMENT NOTES

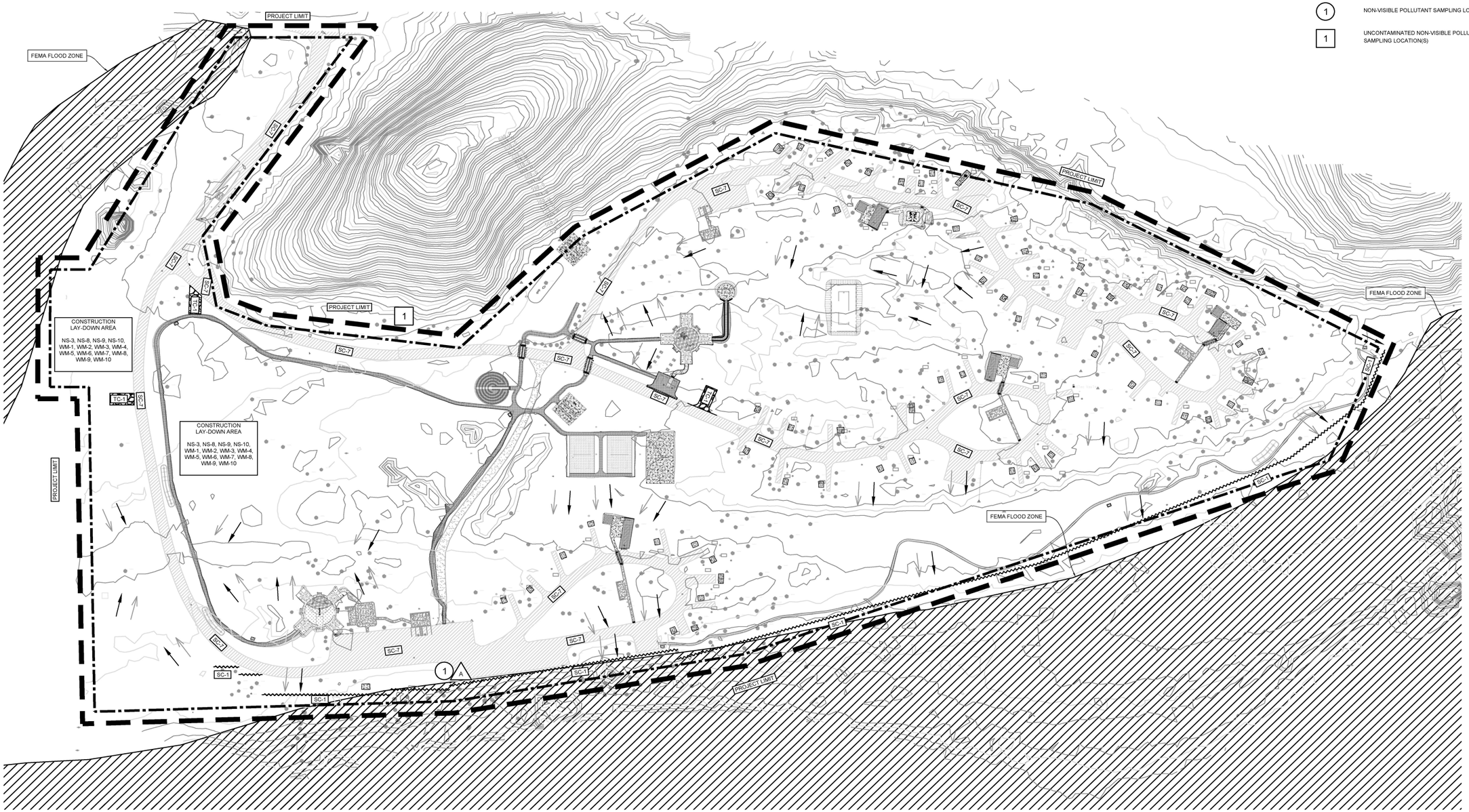
1. DURING THE RAINY SEASON, THE AMOUNT OF EXPOSED SOIL ALLOWED AT ONE TIME SHALL NOT EXCEED THAT WHICH CAN BE ADEQUATELY PROTECTED BY THE PROPERTY OWNER IN THE EVENT OF A RAINSTORM.
2. THE PROPERTY OWNER IS OBLIGATED TO ENSURE COMPLIANCE WITH ALL APPLICABLE STORM WATER REGULATIONS AT ALL TIMES. THE B.M.P.'S (BEST MANAGEMENT PRACTICES) THAT HAVE BEEN INCORPORATED INTO THIS PLAN SHALL BE IMPLEMENTED AND MAINTAINED TO EFFECTIVELY PREVENT THE POTENTIALLY NEGATIVE IMPACTS OF THIS PROJECT'S CONSTRUCTION ACTIVITIES ON STORM WATER QUALITY. THE MAINTENANCE OF THE B.M.P.'S IS THE PERMITTEE'S RESPONSIBILITY, AND FAILURE TO PROPERLY INSTALL OR MAINTAIN THE B.M.P.'S MAY RESULT IN ENFORCEMENT ACTION BY THE REGULATING AGENCY OR OTHERS. IF INSTALLED B.M.P.'S FAIL, THEY MUST BE REPAIRED OR REPLACED WITH AN ACCEPTABLE ALTERNATE WITHIN 24 HOURS, OR AS SOON AS SAFE TO DO SO.
3. THE PERMITTEE SHALL KEEP A COPY OF THE SWPPP ON SITE AND AVAILABLE FOR REVIEW BY THE STATE OR OTHERS.

BEST MANAGEMENT PRACTICE (B.M.P.) NOMENCLATURE

SS-2	PRESERVATION OF PROPERTY/PRESERVATION OF EXISTING VEGETATION
SC-1	TEMPORARY SILT FENCE
SC-5	TEMPORARY FIBER ROLLS
SC-7	STREET SWEEPING
WE-1	WIND EROSION CONTROL
TC-1	STABILIZED CONSTRUCTION ENTRANCE
NS-3	PAVING, SEALING, SWACUTTING, GROOVING, AND GRINDING ACTIVITIES
NS-6	ILLEGAL CONNECTION AND ILLICIT DISCHARGE DETECTION AND REPORTING
NS-8	VEHICLE AND EQUIPMENT CLEANING
NS-9	VEHICLE AND EQUIPMENT FUELING
NS-10	VEHICLE AND EQUIPMENT MAINTENANCE
WM-1	MATERIAL DELIVERY AND STORAGE
WM-2	MATERIAL USE
WM-3	STOCK PILE MANAGEMENT
WM-4	SPILL PREVENTION AND CONTROL
WM-5	SOLID WASTE MANAGEMENT
WM-6	HAZARDOUS WASTE MANAGEMENT
WM-8	CONCRETE WASTE MANAGEMENT
WM-9	SANITARY/SEPTIC WASTE MANAGEMENT
WM-10	LIQUID WASTE MANAGEMENT

HATCH & LINE LEGEND

- FEMA FLOOD ZONE
- EXISTING PAVEMENT
- TC-1, STABILIZED CONSTRUCTION ENTRANCE
- SILT FENCE
- PROPOSED DRAINAGE DIRECTION
- EXISTING DRAINAGE DIRECTION
- PROJECT LIMIT LINE
- PROJECT DRAINAGE AREA
- A — STORMWATER DISCHARGE LOCATION(S)
- 1 — NON-VISIBLE POLLUTANT SAMPLING LOCATION(S)
- 1 — UNCONTAMINATED NON-VISIBLE POLLUTANT SAMPLING LOCATION(S)



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QUALIFIED SWPPP DEVELOPER (QSD)
ORFIL MUNIZ, PE, QSD
QSD CERTIFICATION NO. 88165

A&M CONSULTING ENGINEERS

STORM WATER POLLUTION PREVENTION PLAN FOR:

COUNTY OF FRESNO
CHOINUMNI PARK IMPROVEMENTS PROJECT

REVISIONS

NO.	

SCALE: NOT TO SCALE
JOB NO: 11329
QSD: ORFIL MUNIZ, PE, QSD
FILE: 12/2/2024

SHEET NO.

1

OF 1

CHOINUMNI PARK IMPROVEMENTS SWPPP
CHECKLIST FOR CONTRACTOR

- ☐ Title Sheet
- ☐ Section 100.2
- ☐ Section 400.1
- ☐ Section 400.2
- ☐ Section 400.3
- ☐ Table 400.3.1
- ☐ Section 903.1
- ☐ Section 903.2
- ☐ Section 903.3
- ☐ Section 903.4
- ☐ Attachment B: Notice of Intent (NOI) submittal to SWRCB
- ☐ Attachment E: DOT CEM-20DCONSW Contractor Stormwater Personnel Training Records

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

SWPPP OR WPCP AMENDMENT CERTIFICATION AND ACCEPTANCE

DOT CEM-2008SW (NEW 02/2023)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
Choinumni Park Improvements 26501 Pine Flat Road, Sanger, CA 93657	Fresno County - Contract No. 24-24-PR PROJECT IDENTIFICATION NUMBER 11329 WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE DISCHARGE TYPE ☐ SWPPP, Risk Level 1 ☒ SWPPP, Risk Level 2 ☐ SWPPP, Risk Level 3 ☐ Water Pollution Control Program (WPCP) ☐ Project Resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2016-0010, NPDES No. CAG616002 (See Note)

Storm Water Pollution Prevention Plan (SWPPP) or Water Pollution Control Program (WPCP)
Amendment Number _____

REASON FOR AMENDMENT

- ☐ Annual amendment
- ☐ Winterization Plan
- ☐ Change of information
- ☐ Other _____
- ☐ Best Management Practices added as change order work
- ☐ Inactive project
- ☐ Best Management Practices added at discretion of Water Pollution Control Manager or Qualified SWPPP Developer
- ☐ Numeric action level exceedance
- ☐ Regional Water Quality Control Board request
- ☐ Written notice of permit violation
- ☐ Active treatment system
- ☐ Passive treatment

DATE PREPARED	BRIEF DESCRIPTION OF THE AMENDMENT

CONTRACTOR CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

CONTRACTOR SIGNATURE	DATE
CONTRACTOR NAME	PHONE NUMBER

WATER POLLUTION CONTROL MANAGER CERTIFICATION OF SWPPP OR WPCP AMENDMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

WATER POLLUTION CONTROL MANAGER SIGNATURE	DATE
WATER POLLUTION CONTROL MANAGER NAME	PHONE NUMBER
TITLE	

Note: National Pollutant Discharge Elimination System (NPDES)

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SWPPP OR WPCP AMENDMENT CERTIFICATION AND ACCEPTANCE

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
Choinumni Park Improvements 26501 Pine Flat Road, Sanger, CA 93657	Fresno County - Contract No. 24-24-PR
	PROJECT IDENTIFICATION NUMBER 11329
	WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER

RESIDENT ENGINEER ACCEPTANCE OF SWPPP OR WPCP AMENDMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

RESIDENT ENGINEER SIGNATURE	DATE OF AMENDMENT ACCEPTANCE
RESIDENT ENGINEER NAME	PHONE NUMBER
DATE SUBMITTED TO STORMWATER MULTIPLE APPLICATION AND REPORT TRACKING SYSTEM	

REQUIRED FOR PRIVATE ENTITY ADMINISTERED PROJECTS

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

LEGALLY RESPONSIBLE PERSON SIGNATURE	DATE
LEGALLY RESPONSIBLE PERSON NAME	PHONE NUMBER
TITLE	

REQUIRED FOR LOCAL AGENCY OR PRIVATE ENTITY ADMINISTERED PROJECT
CALTRANS OVERSIGHT ENGINEER'S CONCURRENCE WITH SWPPP OR WPCP AMENDMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

OVERSIGHT ENGINEER SIGNATURE	DATE
OVERSIGHT ENGINEER NAME	PHONE NUMBER

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Instructions

General Information

- This form complies with Order WQ 2022-0057-DWQ, NPDES Number CAS000002, “National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities.”
- The information on this form is required for projects with either a Stormwater Pollution Prevention Plan (SWPPP) or a Water Pollution Control Program (WPCP) to document amendment acceptance and certification.
- SWPPP amendments must be certified by the duly authorized representative as identified in Form DOT CEM-2006SW, “Legally Responsible Person Authorization of Duly Authorized Representative,” signed by the legally responsible person (LRP).
    1. For Caltrans, the LRP is the district director. The LRP may authorize the project resident engineer to be a duly authorized representative.
    2. For a local agency, the LRP is either a principal executive officer or a ranking elected official. The local agency LRP may authorize the project resident engineer to be a duly authorized representative.
    3. For a private entity performing work in the state right-of-way under an encroachment permit, the LRP must be one of the following:
        a. For a corporation, a responsible corporate officer.
        b. For a partnership or sole proprietorship, a general partner or the proprietor, respectively. The private entity LRP may not authorize a duly authorized representative.
    4. Water Pollution Control Manager signature block must be signed and certified by a Qualified SWPPP Developer for SWPPP Amendments.
    5. Water Pollution Control Manager signature block may be signed and certified by a Qualified SWPPP Developer or Qualified SWPPP Practitioner for WPCP Amendments.
    6. Attach a completed copy of this form to each SWPPP or WPCP amendment, and include it in the SWPPP Attachment DD or the WPCP Attachment C.
- Log information from this form onto Form DOT CEM-2009SW, “SWPPP or WPCP Amendments Log.”

Form

CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE

For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

PROJECT IDENTIFICATION NUMBER

For projects without a project identification number, write "N/A" in the field.

WASTE DISCHARGE IDENTIFICATION NUMBER

For projects with Water Pollution Control Program, enter “WPCP."

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SWPPP OR WPCP AMENDMENTS LOG

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
Choinumni Park Improvements 26501 Pine Flat Road, Sanger, CA 93657	Fresno County - Contract No. 24-24-PR PROJECT IDENTIFICATION NUMBER 11329 WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE DISCHARGE TYPE ☐ SWPPP, Risk Level 1 ☒ SWPPP, Risk Level 2 ☐ SWPPP, Risk Level 3 (see Note 1) ☐ Water Pollution Control Program (WPCP) ☐ Project Resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2016-0010, NPDES No. CAG616002 (see Note 2)

Amendments

Amendment Number	Date Prepared	Brief Description of Amendment	Requested By	Accepted Date

Notes
1. Stormwater Pollution Prevention Plan (SWPPP)
2. National Pollutant Discharge Elimination System (NPDES)

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Instructions

General Information

- This form complies with Order WQ 2022-0057-DWQ, NPDES Number CAS000002, “National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities.”
- Projects with either a Stormwater Pollution Prevention Plan (SWPPP) or Water Pollution Control Program (WPCP) require the information on this form to track amendments.
- Attach a completed copy of the form to each accepted SWPPP or WPCP amendment, Form DOT CEM-2008SW, “SWPPP or WPCP Amendment Certification and Acceptance,” and include in the SWPPP or WPCP.

Form

CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE

For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

PROJECT IDENTIFICATION NUMBER

For projects without a project identification number, write "N/A" in the field.

WASTE DISCHARGE IDENTIFICATION NUMBER

For projects with Water Pollution Control Program, enter “WPCP."

When the resident engineer has accepted SWPPP or WPCP amendments, enter:

1. The amendment number.
2. The date the Water Pollution Control Manager signed Form DOT CEM-2008SW.
3. A brief description of the amendment.
4. The name and title of person who requested the amendment.
5. The date the resident engineer accepted Form DOT CEM-2008SW.

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QUALIFIED STORMWATER POLLUTION PREVENTION PLAN PRACTITIONER (QSP) DELEGATE TRAINING RECORD

DOT CEM-2020SW (NEW 02/2023)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
Choinumni Park Improvements 26501 Pine Flat Road, Sanger, CA 93657	Fresno County - Contract No. 24-24-PR PROJECT IDENTIFICATION NUMBER 11329 WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE DISCHARGE TYPE ☐ SWPPP, Risk Level 1 ☒ SWPPP, Risk Level 2 ☐ SWPPP, Risk Level 3 (see Note 1) ☐ N/A - Project Resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2016-0010, NPDES No. CAG616002 (see Note 2)

QSP Delegate Training Record

Delegate Name		Delegate Phone Number	Company Name
Training Course Title or Specific Training Objective	Course Length (hrs)	Location	Date of Training
Instructor Name		Instructor Title	Instructor Phone Number

Delegate has completed training on ALL the following minimum required stormwater topics? ☐ YES ☐ NO

- Foundational Training:
  - Stormwater Roles and Responsibilities
  - Forecast Information
  - Documenting and Reporting Procedures

- Site-Specific Training:
  - Visual Inspections
  - Sampling Procedures
  - Stormwater Pollution Prevention Plan (SWPPP) or WPCP Implementation
  - Best Management Practices implementation required for work activities

If the answer is NO, do not submit form until training on all minimum required stormwater topics, according to ORDER WQ 2022-0057-DWQ, NPDES No. CAS000002, has been completed.

Check any additional trainings that were completed on the following stormwater topics:

☐ Temporary soil stabilization
☐ Tracking controls
☐ Non-stormwater management
☐ Waste management and materials pollution control
☐ Spill prevention and control
☐ Temporary sediment control
☐ Wind erosion control
☐ Stormwater discharge sampling
☐ Pre-storm activities
☐ Permanent soil stabilization

Notes

1. Stormwater Pollution Prevention Plan (SWPPP)
2. National Pollutant Discharge Elimination System (NPDES)

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QUALIFIED STORMWATER POLLUTION PREVENTION PLAN PRACTITIONER (QSP) DELEGATE TRAINING RECORD

DOT CEM-2020SW (NEW 02/2023)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
Choinumni Park Improvements 26501 Pine Flat Road, Sanger, CA 93657	Fresno County - Contract No. 24-24-PR
	PROJECT IDENTIFICATION NUMBER 11329
	WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

Contractor Name	Contractor Signature	Date
Water Pollution Control Manager Name	Water Pollution Control Manager Signature	Date
QSP Delegate Name	QSP Delegate Signature	Date

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QUALIFIED STORMWATER POLLUTION PREVENTION PLAN PRACTITIONER (QSP) DELEGATE TRAINING RECORD

DOT CEM-2020SW (NEW 02/2023)

Instructions

General Information

- This form complies with Order WQ 2022-0057-DWQ, NPDES Number. CAS000002, “National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities.”

Projects with a Stormwater Pollution Prevention Plan (SWPPP) requires the information on this form to document stormwater training for QSP delegates. Include the form and required training documentation in the stormwater annual report for SWPPP projects.

- QSP delegates must complete this form to document training they’re responsible for and the activities associated with Construction General Permit compliance and contract specifications.
- The contractor, Water Pollution Control Manager and QSP Delegate must sign the form. Names may be written or typed. Signatures must be original.
- File originals with the resident engineer within five days of the date of training.
- Provide an updated copy of Form DOT CEM-2024SW, "Stormwater Training Log," along with this form to the resident engineer within five days of the date of training.
- Stormwater training needs to be completed at the frequency stipulated in the project specifications or the SWPPP, whichever is more frequent.
- Attach copy of training material or topic with submittal to the resident engineer.

Form

- **PROJECT INFORMATION NAME AND SITE ADDRESS**
  The site address should be the same as what is included in the project’s Notice of Intent that was used to secure the WDID.
- **CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE**
  For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.
- **PROJECT IDENTIFICATION NUMBER**
  For projects without one, write "N/A" in the field.

QSP Delegate Training Record

- **Delegate has completed training on all the following minimum required stormwater topics? YES or NO**
  Review the listed Foundational Trainings and Site-Specific Trainings and select YES or NO to answer the question. Note that a QSP opting to delegate tasks to others shall provide at a minimum the Foundational Training and Site-specific Training to verify that the delegate can perform and has a competent understanding of the responsibilities required according to Order WQ 2022-0057-DWQ, NPDES Number CAS000002. If the answer is NO, do not submit form until training on all minimum required stormwater topics has been completed.
- **Check any additional trainings that were completed on the following stormwater topics:**
  Review the listed additional stormwater topics and check any that have been completed. Note that a QSP opting to delegate tasks to others shall provide training on any additional stormwater topics to verify that the delegate can perform and has a competent understanding of the responsibilities to implement Order WQ 2022-0057-DWQ, NPDES Number CAS000002.

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STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

STORMWATER TRAINING RECORD

DOT CEM-2023SW (NEW 08/2023)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
Choinumni Park Improvements 26501 Pine Flat Road, Sanger, CA 93657	Fresno County - Contract No. 24-24-PR PROJECT IDENTIFICATION NUMBER 11329 WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE DISCHARGE TYPE ☐ SWPPP, Risk Level 1 ☒ SWPPP, Risk Level 2 ☐ SWPPP, Risk Level 3 (see Note 1) ☐ Water Pollution Control Program (WPCP) ☐ Project Resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2016-0010, NPDES No. CAG616002 (see Note 2)

STORMWATER TRAINING RECORD

TRAINING COURSE TITLE OR SPECIFIC TRAINING OBJECTIVE	LOCATION
DATE OF TRAINING	COURSE DURATION

Stormwater Training Topics

- ☐ Temporary soil stabilization
- ☐ Temporary sediment control
- ☐ Tracking controls
- ☐ Wind erosion control
- ☐ Non-stormwater management
- ☐ Stormwater discharge sampling
- ☐ Permanent soil stabilization
- ☐ Waste management and materials pollution control activities
- ☐ Pre-qualifying precipitation event
- ☐ Spill prevention and control
- ☐ Work over the water
- ☐ Initial project training
- ☐ Material delivery, storage, usage, and disposal
- ☐ Best Management Practices for current work activities
- ☐ Deficiencies and corrective actions
- ☐ Other:

ATTENDEE ROSTER

Write Names Legibly ☐ Separate Attendee Roster Attached ____ Number of Pages Attached

NAME	COMPANY	INITIALS

Notes:

1. Stormwater Pollution Prevention Plan (SWPPP)
2. National Pollutant Discharge Elimination System (NPDES)

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STORMWATER TRAINING RECORD

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
	PROJECT IDENTIFICATION NUMBER
	WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER

ATTENDEE ROSTER (CONTINUED)

Write Names Legibly

NAME	COMPANY	INITIALS

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Has training information been entered into the Stormwater Training Log (Form DOT CEM-2024SW)? ☐ YES ☐ NO

STORMWATER TRAINING RECORD

INSTRUCTOR CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

INSTRUCTOR SIGNATURE DATE

INSTRUCTOR NAME TITLE

CONTRACTOR CERTIFICATION

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CONTRACTOR NAME

CONTRACTOR SIGNATURE DATE

WATER POLLUTION CONTROL MANAGER CERTIFICATION

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WATER POLLUTION CONTROL MANAGER NAME

WATER POLLUTION CONTROL MANAGER SIGNATURE DATE

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- Projects with either a Storm Water Pollution Prevention Plan (SWPPP) or a Water Pollution Control Program (WPCP) require the information on this form to document stormwater training for contractor and subcontractor managers, supervisors, and employees.
- Provide this training record and an updated copy of Form DOT CEM-2024SW, "Stormwater Training Log," to the resident engineer within five days of the date of training, to document required training, and for the Stormwater Annual Report for SWPPP projects.
- Attach a copy of training materials, if used, with submittal.
- Attach additional copies of page 2 of this form if necessary to record all individuals attending this training.

Form

CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

PROJECT IDENTIFICATION NUMBER
For projects without a Project Identification Number, write “N/A” in the field.

WASTE DISCHARGE IDENTIFICATION NUMBER
For projects with a Water Pollution Control Program, enter "WPCP" in this field.

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STORMWATER TRAINING LOG - OPTIONAL

DOT CEM-2024SW (REV 09/2024)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
Choinumni Park Improvements 26501 Pine Flat Road, Sanger, CA 93657	Fresno County - Contract No. 24-24-PR PROJECT IDENTIFICATION NUMBER 11329 WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE DISCHARGE TYPE ☐ SWPPP, Risk Level 1 ☒ SWPPP, Risk Level 2 ☐ SWPPP, Risk Level 3 (see Note 1) ☐ Water Pollution Control Program (WPCP) ☐ Project Resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2016-0010, NPDES No. CAG616002 (see Note 2)

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

Contractor Name	Contractor Signature	Date

STORMWATER TRAINING LOG

Training Date	Number of Training Attendees	Stormwater Training Course Title or Topics Covered	Date Training Documentation Provided to Resident Engineer (from Form DOT CEM-2023SW)

Notes

1. Stormwater Pollution Prevention Plan (SWPPP)
2. National Pollutant Discharge Elimination System (NPDES)

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STORMWATER TRAINING LOG - OPTIONAL

DOT CEM-2024SW (REV 09/2024)

Instructions

General Information

- This form complies with Order WQ 2022-0057-DWQ, NPDES Number. CAS000002, “National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities.”
- For projects with either a Stormwater Pollution Prevention Plan (SWPPP) or a Water Pollution Control Program (WPCP), the information shown on this form may be used to document stormwater training for contractor and subcontractor employees. The stormwater annual report for SWPPP projects will include required training documentation and the information on this form.
- Provide an updated copy of this form with attached training documentation to the resident engineer within five days of training, along with Form DOT CEM-2023SW, “Stormwater Training Record,” and a copy of training materials and topic(s) covered.
- This form is optional, and provided as a management tool for the water pollution control manager to assist in compiling and organizing information required of the annual report.

Form

CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE

For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

PROJECT IDENTIFICATION NUMBER

For projects without a project identification number, write "N/A" in the field.

WASTE DISCHARGE IDENTIFICATION NUMBER

For projects with a Water Pollution Control Program, enter “WPCP" in this field.

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STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

STORMWATER SITE INSPECTION REPORT

DOT CEM-2030SW (REV 01/2024)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
Choinumni Park Improvements 26501 Pine Flat Road, Sanger, CA 93657	Fresno County - Contract No. 24-24-PR PROJECT IDENTIFICATION NUMBER 11329 WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE DISCHARGE TYPE: ☐ SWPPP, Risk Level 1 ☒ SWPPP, Risk Level 2 ☐ SWPPP, Risk Level 3 (see Note 1) ☐ Water Pollution Control Program (WPCP) ☐ Project resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2016-0010, NPDES No. CAG616002 (see Note 2)

GENERAL INFORMATION

Inspection Type: *Make selection(s) in the menu below. Check all that apply. Use Form DOT CEM-2090SW, "Stormwater Notice of Termination and Final Stormwater Inspection Report," for Notice of Termination inspections.*

Qualified SWPPP Developer (QSD)	**QSD or Qualified SWPPP Practitioner (QSP)**	**QSD, QSP, trained QSP Delegate, or Assistant Water Pollution Control Manager**
☐ Within 30 days after construction start	☐ At least once a month (active projects)	☐ Weekly
☐ Within 30 days after the QSD is replaced	☐ Before a forecasted Qualified Precipitation Event (QPE)	☐ Daily-during storm event
☐ Within 14 days of approved Change of Information	☐ Before a Change of Information for acreage changes	☐ After storm event that generated runoff
☐ Within 14 days after a Numeric Action Level exceedance	☐ Within 14 days after a Numeric Action Level exceedance	☐ Monthly inactive-status projects
☐ Twice Annually (Aug-Oct & Jan-March)		☐ Before a forecasted storm event with less than 0.50 inches of precipitation in a 24-hour period
☐ As requested in writing by the Regional Water Quality Control Board		

INSPECTOR'S NAME	INSPECTOR'S TITLE

DATE OF INSPECTION	TIME OF INSPECTION	Accompanied by Caltrans Staff? ☐ YES ☐ NO	If Yes, Name or Initials of Caltrans Staff

PROJECT STATUS

Weather and Site Conditions Information

Active Status	**Weather Information**		**Wind Condition**
☐ Active	☐ No precipitation	☐ Thunderstorm	☐ None
☐ Inactive	☐ Hail	☐ Heavy rain	☐ Less than 5 miles per hour
	☐ Light rain	☐ Snow	☐ Greater than 5 miles per hour
	☐ Rain	☐ Sleet	

Construction Phase	**Site Information**
☐ Highway construction	Total project area _____ acres
☐ Plant establishment	Total project disturbed soil area _____ acres
☐ Suspension of work (inactive site)	Current phase distributed soil area _____ acres
	Current phase inactive disturbed soil _____ acres

General construction activities completed since the last inspection:

Precipitation Event Information

Time elapsed since the end date of last storm: _____ days | Rain gauge onsite? ☐ YES ☐ NO | Precipitation amount from the last storm: _____ inches

Complete the following if applicable.

☐ Pre-forecasted storm event or QPE	Forecasted storm event start _____ (time) _____ (date)	Forecasted precipitation amount _____ inches
☐ During storm event (at 24-hour intervals during extended storm events)	Time elapsed since the storm event began _____ hours-minutes	Precipitation amount from the event recorded from site rain gauge _____ inches
☐ Post-QPE (within 96 hours after each storm producing runoff)	Time elapsed since the event ended _____ hours-minutes	Precipitation amount from the event recorded from site rain gauge _____ inches

Notes: 1. Stormwater Pollution Prevention Plan (SWPPP)
2. National Pollutant Discharge Elimination System (NPDES)

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STORMWATER SITE INSPECTION REPORT

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
Choinumni Park Improvements	Fresno County - Contract No. 24-24-PR
	PROJECT IDENTIFICATION NUMBER: 11329
26501 Pine Flat Road, Sanger, CA 93657	WDID NUMBER

Site Inspection of Best Management Practices (BMP)

If the inspection form does not contain enough lines for all locations, use the plus sign to add rows so that all BMP locations are inspected and reported.

Preservation of Existing Vegetation ☒ YES ☐ NO	Is ESA fencing installed in all required areas, as staked? (see Note)		Are the ESA fences in good repair?		Are ESA signs installed according to plan?		Are the ESA fences effective in eliminating encroachments?		Is vegetation removal limited to approved clearing limits?	
List all areas by location	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
Location 1										
Location 2										
Location 3										

Location Number	Comments, Deficiencies Identified, and Corrective Actions	Action Number
1		
2		
3		

Note:
Environmentally Sensitive Area (ESA)

Image Location		Image Location	

Soil Stabilization ☒ YES ☐ NO	Is soil stabilization installed on inactive disturbed soil areas (DSA) and active DSA before any storm event?		Is the soil stabilization the approved type and installed properly?		Are DSA free of erosion?		Are soil stabilization materials available for installation or for repairs as needed?		Are erodible soil stabilization materials operations discontinued at least 2 days before forecasted precipitation?		Are linear controls on slopes at the correct spacing?	
List all areas by location	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
Location 1												
Location 2												
Location 3												

STORMWATER SITE INSPECTION REPORT

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
Choinumni Park Improvements	Fresno County - Contract No. 24-24-PR
	PROJECT IDENTIFICATION NUMBER: 11329
26501 Pine Flat Road, Sanger, CA 93657	WDID NUMBER

Location Number	Comments, Deficiencies Identified, and Corrective Actions	Action Number
1		
2		
3		

Image Location		Image Location	

Linear Sediment Barriers

☒ YES ☐ NO

List all areas by location	Are linear barriers installed according to standard plan details?		Are they installed on contour?		Are effective perimeter controls in place?		Are they in good condition, and with sediment removed before accumulating more than 1/3 of their height?		If they are in series, are they at the correct spacing?		Is there a 50-foot undisturbed natural buffer, or equivalent, from the edge of DSA to receiving water's top of bank?	
	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
Location 1												
Location 2												
Location 3												

Location Number	Comments, Deficiencies Identified, and Corrective Actions	Action Number
1		
2		
3		

STORMWATER SITE INSPECTION REPORT

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Image Location		Image Location	

Storm Drainage Inlet Protection ☒ YES ☐ NO	Are drainage inlet protections installed according to approved details?		Are they the appropriate type for the current work?		Are all sediments and debris removed?		Are scuppers and deck drains protected as needed for the work?	
List all areas by location	YES	NO	YES	NO	YES	NO	YES	NO
Location 1								
Location 2								
Location 3								

Location Number	Comments, Deficiencies Identified, and Corrective Actions	Action Number
1		
2		
3		

Image Location		Image Location	

STORMWATER SITE INSPECTION REPORT

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
Choinumni Park Improvements	Fresno County - Contract No. 24-24-PR
	PROJECT IDENTIFICATION NUMBER: 11329
26501 Pine Flat Road, Sanger, CA 93657	WDID NUMBER

Tracking Controls and Street Sweeping

☒ YES ☐ NO

List all areas by location	Are all vehicles entering and exiting in authorized locations?		Are exits clear of tracking dirt, debris, or tack oil outside the construction site?		Are the temporary construction entrances maintained?		Are temporary construction entrance sumps and sediment traps maintained?		Is appropriate equipment available for sweeping?	
	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
Location 1										
Location 2										
Location 3										

Location Number	Comments, Deficiencies Identified, and Corrective Actions	Action Number
1		
2		
3		

Image Location		Image Location	

Wind Erosion Control, Concrete Finishing and Demolition

☒ YES ☐ NO

List all areas by location	Is dust controlled effectively so that it is not visible in the air?		Is a water truck or equivalent available as needed?		Is dust collected and disposed of instead of swept or blown away, without creating visible airborne dust?		Are debris and residue collection methods effective for any demolition and finishing work?	
	YES	NO	YES	NO	YES	NO	YES	NO
Location 1								
Location 2								
Location 3								

Location Number	Comments, Deficiencies Identified, and Corrective Actions	Action Number
1		
2		

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	PROJECT IDENTIFICATION NUMBER: 11329
26501 Pine Flat Road, Sanger, CA 93657	WDID NUMBER

Location Number	Comments, Deficiencies Identified, and Corrective Actions	Action Number
3		

Image Location		Image Location	

Stockpile Management
☒ YES ☐ NO

List all areas by location	Are erodible stockpiles covered effectively (inactive stockpiles, and active stockpiles before storm or wind events)?		Are non-plastic covers such as hydroseed used when appropriate?		Do soil, hot mix asphalt, aggregate base, and aggregate subbase stockpiles have linear barriers?		Are cold mix stockpiles on impervious surfacing and have cover and linear barriers?		Are pressure-treated wood stockpiles on pallets and covered?		Are linear barriers and covers in good condition and maintained?	
	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
Location 1												
Location 2												
Location 3												

Location Number	Comments, Deficiencies Identified, and Corrective Actions	Action Number
1		
2		
3		

Image Location		Image Location	

STORMWATER SITE INSPECTION REPORT

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Job Site Management

☒ YES ☐ NO

List all areas by location	Are bagged and boxed materials protected from wind and rain on non-workdays and when there is precipitation in the forecast?		Do liquid materials and wastes have adequate secondary containment?		Are materials in original, labeled containers, except what is used in a shift?		Are good housekeeping practices in effect?		Are all spills and leaks cleaned up and wastes disposed of, and is leaking equipment repaired or removed immediately?		Are spill kits onsite and adequate for semi-significant spills?		Is the site free of illegal connections, illicit discharges, and illegal dumping?	
	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
Location 1														
Location 2														
Location 3														

Location Number	Comments, Deficiencies Identified, and Corrective Actions	Action Number
1		
2		
3		

Image Location		Image Location	

STORMWATER SITE INSPECTION REPORT

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Vehicle and Equipment Cleaning, Fueling, and Maintenance ☒ YES ☐ NO	Are cleaning, fueling, and maintenance operations conducted onsite only when it is impractical to do off-site?		Are cleaning, fueling, and maintenance operations conducted away from drainages, and in authorized areas?		Are the fueling and maintenance areas impervious, or are drip pans used?		Is vehicle and equipment cleaning done in a washing structure?		Are all wastes, including wash water, collected and disposed of properly?		Are spill kits located in the fueling and maintenance areas?	
List all areas by location	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
Location 1												
Location 2												
Location 3												

Location Number	Comments, Deficiencies Identified, and Corrective Actions	Action Number
1		
2		
3		

Image Location		Image Location	

STORMWATER SITE INSPECTION REPORT

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Choinumni Park Improvements 26501 Pine Flat Road, Sanger, CA 93657	Fresno County - Contract No. 24-24-PR PROJECT IDENTIFICATION NUMBER 11329 WDID NUMBER

Solid Waste Management, Hazardous Waste Management, Liquid Waste Management ☒ YES ☐ NO	Are there enough closed-lid dumpsters to contain solid waste?		Is waste contained in water-tight containers?		Are liquid wastes, including slurries, drilling fluids, and residues, collected and stored in leak-proof containers for proper disposal?		Are buffers and fences in place as needed for wastes?	
List all areas by location	YES	NO	YES	NO	YES	NO	YES	NO
Location 1								
Location 2								
Location 3								

Location Number	Comments, Deficiencies Identified, and Corrective Actions	Action Number
1		
2		
3		

Image Location		Image Location	

STORMWATER SITE INSPECTION REPORT

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Choinumni Park Improvements	Fresno County - Contract No. 24-24-PR
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Concrete Waste Management ☒ YES ☐ NO

List all areas by location	Do concrete washouts have at least 6 inches of freeboard, and have capacity for planned pours?		Is concrete washout waste disposed of within 2 business days of washouts reaching capacity?		Are slurries and concrete waste picked up immediately?		Are washouts at least 50 feet from drainages?		Do concrete washouts have the required signage?		Are concrete washouts covered before and during precipitation events?		Is concrete dust managed effectively from demolition operations?	
	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
Location 1														
Location 2														
Location 3														

Location Number	Comments, Deficiencies Identified, and Corrective Actions	Action Number
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3		

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STORMWATER SITE INSPECTION REPORT

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Choinumni Park Improvements	Fresno County - Contract No. 24-24-PR
	PROJECT IDENTIFICATION NUMBER: 11329
26501 Pine Flat Road, Sanger, CA 93657	WDID NUMBER

Paving, Sealing, Saw Cutting, and Grinding Operations ☒ YES ☐ NO	Is the paving equipment parked over drip pans or over plastic sheeting?		Are drainage inlets and receiving waters protected from waste?		Are waste chunks collected and stockpiled for disposal?		Are slurries, dust, tack, bituminous and striping material wastes prevented from tracking and collected for proper disposal?		Are grindings collected for recycling?	
List all areas by location	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
Location 1										
Location 2										
Location 3										

Location Number	Comments, Deficiencies Identified, and Corrective Actions	Action Number
1		
2		
3		

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Choinumni Park Improvements 26501 Pine Flat Road, Sanger, CA 93657	Fresno County - Contract No. 24-24-PR PROJECT IDENTIFICATION NUMBER 11329 WDID NUMBER

Pile Driving, Work over the Water, Structure Work, Demolition over the Water ☒ YES ☐ NO	Are watertight curbs or toe boards installed on surfaces over water?		Are scuppers, deck drains, and joints protected as needed?		Are materials and wastes placed so they can't easily be blown into surface waters?		Are surface waters free of sheens, floating debris, and other construction waste?		Is drilling waste collected, appropriately stored, and disposed of?		Is pile driving and other equipment over the water over drip pans or equivalent, and stored on level ground, or otherwise protected from run-on?	
List all areas by location	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
Location 1												
Location 2												
Location 3												

Location Number	Comments, Deficiencies Identified, and Corrective Actions	Action Number
1		
2		
3		

Image Location		Image Location	

STORMWATER SITE INSPECTION REPORT

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Choinumni Park Improvements	Fresno County - Contract No. 24-24-PR
	PROJECT IDENTIFICATION NUMBER: 11329
26501 Pine Flat Road, Sanger, CA 93657	WDID NUMBER

Hazardous Waste Management

☒ YES ☐ NO

List all areas by location	Is hazardous waste stored separately from other wastes—non-hazardous and other hazardous wastes—and away from drainages?		Is hazardous waste stored in United States Department of Transportation-approved metal containers with legible labels?		Is hazardous waste stored in secure facilities with adequate secondary containment?		Are secondary containment facilities covered during non-workdays and before storms?		Is the area free from spills, leaks, and stormwater accumulation?		Is there enough separation between storage containers for spill cleanup or emergency response?	
	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
Location 1												
Location 2												
Location 3												

Location Number	Comments, Deficiencies Identified, and Corrective Actions	Action Number
1		
2		
3		

Image Location		Image Location	

STORMWATER SITE INSPECTION REPORT

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Sanitary Waste Management

☒ YES ☐ NO

List all areas by location	Are sanitary facilities available for the crews?		Are sanitary facilities serviced regularly?		Are portable toilets secured before high wind conditions?		Is there secondary containment?		Are portable toilets at least 50 feet from drainages?	
	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
Location 1										
Location 2										
Location 3										

Location Number	Comments, Deficiencies Identified, and Corrective Actions	Action Number
1		
2		
3		

Image Location		Image Location	

STORMWATER SITE INSPECTION REPORT

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
Choinumni Park Improvements 26501 Pine Flat Road, Sanger, CA 93657	Fresno County - Contract No. 24-24-PR PROJECT IDENTIFICATION NUMBER 11329 WDID NUMBER

Site-specific BMP ☒ YES ☐ NO	Is site-specific BMP maintained?		Description
List all areas by location	YES	NO	
Location 1			
Location 2			
Location 3			

Location Number	Comments, Deficiencies Identified, and Corrective Actions	Action Number
1		
2		
3		

Image Location		Image Location	

STORMWATER SITE INSPECTION REPORT

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
	Fresno County - Contract No. 24-24-PR
Choinumni Park Improvements	PROJECT IDENTIFICATION NUMBER
	11329
26501 Pine Flat Road, Sanger, CA 93657	WDID NUMBER

Water Pollution Control Visual Site Inspection Report General Comments

Based on the inspection conducted and its findings, is the site free of unauthorized discharges?

☐ YES ☐ NO

Is there any evidence of floating or suspended materials, odors, discoloration, visible sheen, or any sources of pollutants in dischargers and contained stormwater?

☐ YES ☐ NO

Based on the inspection conducted and its findings of spills, leaks, or deficiencies, are there any nonvisible pollutant sampling requirements that were triggered? If YES, contact the water pollution control manager and initiate nonvisible pollutant sampling and analysis plan.

☐ YES ☐ NO

Was Form DOT CEM-2035SW, “Stormwater Corrective Actions Summary,” completed to document all deficiencies noted?

☐ YES ☐ NO

Were photographs taken for all areas of concern to accurately reflect site conditions?

☐ YES ☐ NO

Does the amended SWPPP or WPCP reflect current conditions, and are the Water Pollution Control Drawings up to date?

☐ YES ☐ NO

Daily Site Inspections for the Past Week

Date	List daily inspections for previous calendar week. Do not include weekly inspections or storm-related inspections.	Daily inspection performed by:	Were any deficiencies (corrective actions) newly identified?		Were newly identified deficiencies (corrective actions) documented on Form DOT CEM-2035SW?	
			YES	NO	YES	NO
			☐	☐	☐	☐
			☐	☐	☐	☐
			☐	☐	☐	☐
			☐	☐	☐	☐
			☐	☐	☐	☐

Notes:

The following activities must be inspected daily:

- Storage areas for hazardous materials and waste
- Hazardous waste disposal and transporting activities
- Hazardous material delivery and storage activities
- Demolition sites

The following activities and areas must be inspected daily if the activity occurs daily:

- Vehicle and equipment cleaning facilities
- Vehicle and equipment fueling and maintenance areas
- Pile driving areas for leaks and spills
- Temporary concrete washouts
- Paved roads at job site access points for street sweeping
- Work over the water
- Dewatering—use Form DOT CEM-2033SW, “Dewatering Operations Sampling Report,” to inspect dewater activities
- Active Treatment Systems (ATS)—use the site-specific ATS inspection checklist for these daily inspections

STORMWATER SITE INSPECTION REPORT

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	Fresno County - Contract No. 24-24-PR
Choinumni Park Improvements	PROJECT IDENTIFICATION NUMBER
	11329
26501 Pine Flat Road, Sanger, CA 93657	WDID NUMBER

Stormwater Inspection Report Certification

INSPECTOR CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

INSPECTOR SIGNATURE	DATE

INSPECTOR NAME

WATER POLLUTION CONTROL MANAGER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

WATER POLLUTION CONTROL MANAGER SIGNATURE	DATE

WATER POLLUTION CONTROL MANAGER NAME

CONTRACTOR CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

CONTRACTOR SIGNATURE	DATE

CONTRACTOR NAME

STORMWATER SITE INSPECTION REPORT

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
Choinumni Park Improvements 26501 Pine Flat Road, Sanger, CA 93657	Fresno County - Contract No. 24-24-PR PROJECT IDENTIFICATION NUMBER 11329 WDID NUMBER

STORMWATER INSPECTION REPORT ACCEPTANCE

If hazardous waste is stored on the job site, the resident engineer should notify the district hazardous waste coordinator.

Was the district hazardous waste coordinator notified?

☐ NO hazardous waste is stored on the job site

☐ YES Date _____ Time _____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

RESIDENT ENGINEER SIGNATURE	DATE

RESIDENT ENGINEER NAME

Instructions

General Information

- This form complies with Order WQ 2022-0057-DWQ, NPDES Number CAS000002, “National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities.”
- If the inspection form does not contain enough lines to report all locations on a job site, use the "Add Location" button so that all best management practices (BMP) locations are inspected and reported.
- Obtain precipitation event information from the National Weather Service Forecast Office website: https://www.weather.gov
- Rainfall amounts should be recorded from the project site rain gauge (for SWPPP projects).
- If there are specific BMP or activities not included in the inspection report, add details for the site and BMP deficiencies in the “Site-specific BMP” section.
- Complete all sections by selecting YES or NO if they apply. Check YES or NO for all applicable subsections. If a subsection has some questions that are not applicable, those questions should be skipped.

Corrective Actions

- All corrective actions identified in this report must be identified with a unique Action Number, and be recorded on Form DOT CEM-2035SW, "Stormwater Corrective Actions Summary."
- Correct deficiencies immediately (as soon as possible, before the precipitation or the next forecasted precipitation event) according to the authorized SWPPP or WPCP. Prepare amendments to the authorized SWPPP or WPCP and begin preparing design changes within 72 hours of identification of failures or other shortcomings.

Form

CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

PROJECT IDENTIFICATION NUMBER
For projects without a project identification number, write "N/A" in the field.

WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER
For projects with Water Pollution Control Program, enter “WPCP."

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

PERMANENT EROSION CONTROL ESTABLISHMENT (PECE) REPORT

DOT CEM-2032SW (NEW 08/2023)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
Choinumni Park Improvements 26501 Pine Flat Road, Sanger, CA 93657	Fresno County - Contract No. 24-24-PR PROJECT IDENTIFICATION NUMBER 11329 WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE RISK LEVEL ☐ SWPPP, Risk Level 1 ☒ SWPPP, Risk Level 2 ☐ SWPPP, Risk Level 3 (see Note 1) ☐ Water Pollution Control Plan (WPCP) ☐ Project resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2016-0010, NPDES No. CAG616002 (see Note 2)
SUBMITTED BY CONTRACTOR	DATE
WATER POLLUTION CONTROL MANAGER NAME	WATER POLLUTION CONTROL MANAGER COMPANY NAME
	CERTIFICATION NUMBER

GENERAL INFORMATION

DATE OF INSPECTION	DATE OF LAST QUALIFYING PRECIPITATION EVENT
CONSTRUCTION PHASE ☐ Highway construction ☐ Permanent Erosion Control Establishment ☐ Suspension of work (Inactive site)	SITE INFORMATION _____ Total project area (acres) _____ Total project permanent erosion control area (acres or square feet)

Permanent Erosion Control Establishment (PECE) Inspection Status Report

Location Number	Location Description	Deficiency	Describe Proposed PECE Corrective Action	Target Date for Corrective Action	Date Completed

Notes

1. Stormwater Pollution Prevention Plan (SWPPP)
2. National Pollutant Discharge Elimination System (NPDES)

ADA Notice This document is available in alternative accessible formats. For more information, please contact the Forms Management Unit at (279) 234-2284, TTY 711, in writing at Forms Management Unit, 1120 N Street, MS-89, Sacramento, CA 95814, or by email at Forms.Management.Unit@dot.ca.gov.

PERMANENT EROSION CONTROL ESTABLISHMENT (PECE) REPORT

Photographer's Location Number		Photographer's Location Number	

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

CONTRACTOR NAME	SIGNATURE	DATE

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WATER POLLUTION CONTROL MANAGER NAME	SIGNATURE	DATE

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Instructions

General Information

This form complies with Order WQ 2022-0057-DWQ, NPDES Number CAS000002, “National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities.”

This form is to be completed when the contract has a bid item for Permanent Erosion Control Establishment. Inspect each area of Permanent Erosion Control for:

1. Slides.
2. Slipouts.
3. Surface erosion.
4. Damage to:
   a. Erosion control devices.
   b. Water pollution control devices.
5. Poor seed germination.
6. Poor plant growth.
7. Dead or damaged erosion control plant material.
8. Misaligned features.
9. Required repair work.

Describe the location with references to station, latitude or longitude, or other description.

Include a copy of the completed form in the project Storm Water Pollution Prevention Plan (SWPPP) files.

Form

CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

PROJECT IDENTIFICATION NUMBER
Caltrans projects starting July 1, 2010, will have a Project Identification Number. For projects without a project identification number, write “N/A” in the field.

WASTE DISCHARGE IDENTIFICATION NUMBER
For projects with a Water Pollution Control Program, enter "WPCP" in this field.

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STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

DEWATERING OPERATIONS SAMPLING REPORT

DOT CEM-2033SW (NEW 09/2023)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
Choinumni Park Improvements 26501 Pine Flat Road, Sanger, CA 93657	Fresno County - Contract No. 24-24-PR PROJECT IDENTIFICATION NUMBER 11329 WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE DISCHARGE TYPE ☐ SWPPP, Risk Level 1 ☐ Water Pollution Control Program (WPCP) ☒ SWPPP, Risk Level 2 ☐ Project resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2016-0010, NPDES No. CAG616002 (see Note 2) ☐ SWPPP, Risk Level 3 (see Note 1)

WATER POLLUTION CONTROL MANAGER NAME	WATER POLLUTION CONTROL MANAGER PHONE NUMBER	DATE

DEWATERING INFORMATION

DEWATERING ACTIVITIES COMMENCEMENT DATE	DEWATERING ACTIVITIES COMPLETION DATE (ACTUAL OR ANTICIPATED)
DEWATERING OPERATIONS OVERSEEN BY	**TITLE**

DEWATERING PLAN

- Is dewatering performed in accordance with the authorized dewatering and discharge work plan? ☐ YES ☐ NO
  If NO, do not allow dewatering to begin. (For emergency dewatering needs, call the resident engineer immediately.)
- Has a change to the authorized dewatering and discharge work plan been identified as necessary? ☐ YES ☐ NO
  If YES, cease or do not start dewatering, and answer the following A and B:
  - **A.** Has Form DOT CEM-2080SW, "Change of Information Report," (SWPPP projects only) been submitted? ☐ YES ☐ NO ☐ NA
    Submittal Date _____ **, AND,**
  - **B.** Has Form DOT CEM-2008SW, "SWPPP or WPCP Amendment Certification and Acceptance," been submitted? ☐ YES ☐ NO
    Submittal Date _____

DEWATERING OPERATION SOURCE AND DISCHARGES

DEWATERING SOURCE

☐ Excavations or Trenches ☐ Foundations ☐ Vaults ☐ Temporary sumps from interim grading (including excavations and trenches)

☐ Impoundments (ponds, basins, or other planned accumulation points)

☐ Other, list: _____

- Is the dewatering activity from an area with no known soil or groundwater contamination? ☐ YES ☐ NO
- Is the dewatering source free of oily sheens, foams, odors, and discolorations (other than sediment)? ☐ YES ☐ NO
- Is pump or siphon withdrawing the water from just below the surface, if feasible? ☐ YES ☐ NO If NO, explain:

DEWATERING DISCHARGE LOCATION

Latitude: _____ Longitude: _____

☐ Tank or water truck ☐ Upland area ☐ Infiltration sump ☐ Drainage course

☐ Other municipal conveyance, list name: _____

☐ Receiving water, list name: _____

☐ Other, list: _____

- Is the dewatering discharge prevented from causing scour, erosion, or impacts to bedding materials? ☐ YES ☐ NO
- Is the sampling and shutoff automatic? ☐ YES ☐ NO If NO, it must be done by a Qualified SWPPP Practitioner (QSP) or QSP Delegate.

For discharges to upland areas or infiltration sumps:

- Is the discharge infiltrated with no runoff or seepage leaving the project site (or without leaving the authorized disposal site for offsite discharges)? ☐ YES ☐ NO
- Is the discharge infiltrated or evaporated completely within 96 hours? ☐ YES ☐ NO
- If the last answer was NO, are there other authorized vector controls in place? ☐ YES ☐ NO

Notes

1. Stormwater Pollution Prevention Plan (SWPPP)
2. National Pollutant Discharge Elimination System (NPDES)

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DEWATERING OPERATIONS SAMPLING REPORT

SAMPLING FOR DISCHARGES TO DRAINAGES

CALIBRATION INFORMATION
Turbidity Meter Information

TURBIDITY METER MANUFACTURER	MODEL NUMBER	ANALYTICAL METHOD
METER SERIAL NUMBER	PROBE SERIAL NUMBER	METHOD DETECTION LIMIT

Turbidity Calibration Record

Date	Standard Solution Nephelometric Turbidity Units (NTU)	Calibration (Cal) Standard Solution Expiration Date	Initial Calibration Time:		Re-Calibration Time:		Drift Check Time:		Notes	Initials
			Cal	Read	Cal	Read	Read	Acceptable Performance?		

pH (Potential of Hydrogen) Meter Information

pH METER MANUFACTURER	MODEL NUMBER	
METER SERIAL NUMBER	PROBE SERIAL NUMBER	METHOD DETECTION LIMIT

pH Calibration Record

Buffer Solution Expiration Date **pH 4.0 Date:** _____ **pH 7.0 Date:** _____ **pH 10.0 Date:** _____

Date	Temperature at Calibration	Buffers Used for Calibration			Slope %	Re-check pH 7.0	Notes	Initials
		pH 4.0	pH 7.0	pH 10.0				

Dewatering Discharge pH and Turbidity Sample Analysis Results

SAMPLING CONDUCTED
☐ Within the first hour of discharge ☐ Daily (continuous dewatering operations)

DATE OF SAMPLING

SAMPLE IDENTIFICATION	pH			Turbidity (NTUs)		
	Time Sample Collected	Time Sample Read	Sample Results	Time Sample Collected	Time Sample Read	Sample Results

SAMPLE RESULTS REVIEW

Are all results acceptable (no Numeric Action Level (NAL) Exceedances)? ☐ YES ☐ NO

If NO,

- Was the dewatering operation immediately stopped? ☐ YES ☐ NO Operation Ceased – Date: _____ Time: _____
- Scheduled date the Qualified SWPPP Developer has been scheduled to inspect the site (must be within 14 days): _____
- Attach Form DOT CEM-2062SW, "Numeric Action Level Exceedance Report."

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STORMWATER SAMPLING AND TESTING AGENT CERTIFICATION (IF SAMPLING WAS PERFORMED)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

STORMWATER SAMPLING AND TESTING AGENT SIGNATURE	DATE

STORMWATER SAMPLING AND TESTING AGENT NAME

WATER POLLUTION CONTROL MANAGER CERTIFICATION

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WATER POLLUTION CONTROL MANAGER SIGNATURE	DATE

WATER POLLUTION CONTROL MANAGER NAME

CONTRACTOR CERTIFICATION

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CONTRACTOR SIGNATURE	DATE

CONTRACTOR NAME

RESIDENT ENGINEER CERTIFICATION

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RESIDENT ENGINEER SIGNATURE	DATE

RESIDENT ENGINEER NAME

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DEWATERING OPERATIONS SAMPLING REPORT

FOR CALTRANS USE ONLY

NOTIFICATIONS

Dewatering start of operation email sent to appropriate Regional Water Quality Control Board (RWQCB) at least 24 hours before commencement of dewatering:	DATE OF EMAIL	NOTIFICATION BY
SMARTS upload of Change of Information or SWPPP or WPCP Amendment (if needed):	DATE UPLOADED	UPLOADED BY

Emergency dewatering (dewatering discharges needed to protect human life and health, or to prevent severe property damage):

Notification made to appropriate RWQCB:	DATE OF NOTIFICATION	NAME OF PERSON CONTACTED	CONTACTED BY
Notification made to appropriate municipality, if applicable:	DATE OF NOTIFICATION	NAME OF PERSON CONTACTED	CONTACTED BY

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INSTRUCTIONS

General Information

- This form is required for compliance with Order Number 2022-0057-DWQ, NPDES Number CAS000002, "National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Activities."
- This form is required for dewatering operations, except Active Treatment Systems should use the form(s) that are part of the authorized Active Treatment System plan.
- If the project is required to conduct dewatering operations under a separate or individual NPDES permit, use a customized form as authorized.
- If the dewatering is to an area that is off-site, then one of the following forms must be authorized before the discharge:
  - Form DOT CEM-1904, "Agreement Between a Contractor Working on State Facilities and a Real Property Owner for Disposing Construction-Related Material on Commercial Zoned Property Owner's Property," OR,
  - Form DOT CEM-1905, “Agreement Between a Contractor Working on State Facilities and a Real Property Owner for Disposing Construction-Related Material on Residential Zoned Property Owner’s Property,” OR,
  - Form DOT CEM-1906, “Agreement Between a Contractor Working on State Facilities and a Real Property Owner for Disposing Construction-Related Material Suitable for Use on Residential Zoned Property.”
- Submit this form within 24 hours for each dewatering day.
- Include a copy of the completed form in the project WPCP or SWPPP files.

Form

CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field

PROJECT IDENTIFICATION NUMBER
For projects without a project identification number, write "N/A" in the field.

WASTE DISCHARGE IDENTIFICATION NUMBER
For projects with a Water Pollution Control Program, enter "WPCP."

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STORMWATER CORRECTIVE ACTIONS SUMMARY

DOT CEM-2035SW (REV 10/2023)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
Choinumni Park Improvements 26501 Pine Flat Road, Sanger, CA 93657	Fresno County - Contract No. 24-24-PR PROJECT IDENTIFICATION NUMBER 11329 WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE DISCHARGE TYPE ☐ SWPPP, Risk Level 1 ☒ SWPPP, Risk Level 2 ☐ SWPPP, Risk Level 3 (see Note 1) ☐ Water Pollution Control Program (WPCP) ☐ Project resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2016-0010, NPDES No. CAG616002 (see Note 2)

Date of the Inspection that identified the corrective actions:

Action Number	Date Corrective Action Completed	Comments	Verified by (Name)	Initials	"After" Photos on file? Check if YES
					☐
					☐
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					☐

Notes

1. Stormwater Pollution Prevention Plan (SWPPP)
2. National Pollutant Discharge Elimination System (NPDES)

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Corrective Action Summary Report Certifications

WATER POLLUTION CONTROL MANAGER CERTIFICATION

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WATER POLLUTION CONTROL MANAGER SIGNATURE	DATE

WATER POLLUTION CONTROL MANAGER NAME

CONTRACTOR CERTIFICATION

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CONTRACTOR SIGNATURE	DATE

CONTRACTOR NAME

CORRECTIVE ACTION SUMMARY REPORT ACCEPTANCE

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RESIDENT ENGINEER SIGNATURE	DATE

RESIDENT ENGINEER NAME

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Instructions

General Information

- This form complies with Order WQ 2022-0057-DWQ, NPDES Number, CAS000002, “National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities.”
- Corrective actions identified on a pre-qualifying precipitation event stormwater site inspection or in response to numeric effluent limitation exceedances must be overseen by a Qualified SWPPP Practitioner.
- This form, along with DOT CEM-2030SW, “Stormwater Site Inspection Report,” comprise a visual monitoring report.

Form

CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE

For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

PROJECT IDENTIFICATION NUMBER

For projects without a project identification number, write "N/A" in the field.

WASTE DISCHARGE IDENTIFICATION NUMBER

For projects with Water Pollution Control Program, enter “WPCP."

ACTION NUMBER

Action numbers correlate to those listed on the corresponding Form DOT CEM-2030SW, “Stormwater Site Inspection Report.”

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STORM EVENT SWPPP SAMPLING LOG

DOT CEM-2051SW (NEW 08/2023)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
	Fresno County - Contract No. 24-24-PR
Choinumni Park Improvements	PROJECT IDENTIFICATION NUMBER
	11329
26501 Pine Flat Road, Sanger, CA 93657	WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE DISCHARGE TYPE
	☐ SWPPP, Risk Level 1 ☐ Water Pollution Control Program (WPCP)
	☒ SWPPP, Risk Level 2 ☐ Project resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2016-0010, NPDES No. CAG616002 (see Note 2)
	☐ SWPPP, Risk Level 3 (see Note 1)

WATER POLLUTION CONTROL MANAGER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

WATER POLLUTION CONTROL MANAGER SIGNATURE	DATE

WATER POLLUTION CONTROL MANAGER NAME

CONTRACTOR CERTIFICATION

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CONTRACTOR SIGNATURE	DATE

CONTRACTOR NAME

Notes

1. Stormwater Pollution Prevention Plan (SWPPP)
2. National Pollutant Discharge Elimination System (NPDES)

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STORM EVENT SWPPP SAMPLING LOG

STORM EVENT SUMMARY

Date	Day of the Week	Time of Day for Storm Beginning and Ending (See Note)	Business Day?	Run-Off Observed?	Sampling Performed?	Rain Gauge Reading (Inches)	Number of Discharge Points Sampled	Comments or Exceedances
Total number of days with run-off observed to be discharging from the site:				Storm precipitation total: (sum of rain gauge measurement, inches)				

Note: The Time of Day field is formatted in military time. Leave it blank for days between the beginning and end dates of the storm.

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Instructions

General Information

- This form complies with Order WQ 2022-0057-DWQ, NPDES Number CAS000002, “National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities.”
- The information shown on this form is required for projects with a Stormwater Pollution Prevention Plan (SWPPP) to document stormwater sampling and analysis. The information on this form is required for the Stormwater Annual Report for SWPPP projects.
- Complete this form after every storm event that requires sampling and analysis and submit within 5 days of the end of the storm.
- If sampling was not performed, include the reason sampling was not performed in the Comments or Exceedances field.

Form

CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

PROJECT IDENTIFICATION NUMBER
For projects without a project identification number, write "N/A" in the field.

WASTE DISCHARGE IDENTIFICATION NUMBER
For projects with Water pollution Control Program, enter "WPCP."

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STORM EVENT SAMPLING OR RECEIVING WATER MONITORING REPORT

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
Choinumni Park Improvements 26501 Pine Flat Road, Sanger, CA 93657	Fresno County - Contract No. 24-24-PR PROJECT IDENTIFICATION NUMBER 11329 WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE RISK LEVEL ☐ SWPPP, Risk Level 1 ☐ Water Pollution Control Plan (WPCP) ☒ SWPPP, Risk Level 2 ☐ Project resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2016-0010, NPDES No. CAG616002 (see Note 2) ☐ SWPPP, Risk Level 3 (see Note 1)

GENERAL INFORMATION

STORMWATER SAMPLING AND TESTING AGENT NAME	DATE OF SAMPLING
☐ Stormwater Samples ☐ Non-Stormwater Samples Reason for non-stormwater sampling, if applicable:	SAMPLES ANALYZED FOR: ☐ Potential of Hydrogen (pH) ☐ Turbidity ☐ Other Laboratory Tests (attach the laboratory report) ☐ Other Field Tests

CALIBRATION INFORMATION

Turbidity Meter Information

Turbidity Meter Manufacturer	Model Number	Analytical Method
Meter Serial Number	Probe Serial Number	Method Detection Limit

Turbidity Calibration Record

Date	Standard Solution Nephelometric Turbidity Units (NTU)	Calibration (Cal) Standard Solution Expiration Date	Initial Calibration		Re-Calibration		Drift Check		Notes	Initials
			Time:		Time:		Time:			
			Cal	Read	Cal	Read	Read	Acceptable Performance?		

pH Meter Information

pH Meter Manufacturer	Model Number	
Meter Serial Number	Probe Serial Number	Method Detection Limit

pH Calibration Record

Buffer Solution Expiration Date: pH 4.0 Date _____ **pH 7.0 Date** _____ **pH 10.0 Date** _____

Date	Electrode Number	Temperature at Calibration	Buffers Used for Calibration			Slope %	Re-Check pH 7.0	Notes	Initials
			pH 4.0	pH 7.0	pH 10.0				

Notes

1. Stormwater Pollution Prevention Plan (SWPPP)
2. National Pollutant Discharge Elimination System (NPDES)

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STORM EVENT SAMPLING OR RECEIVING WATER MONITORING REPORT

Other Field Meter Information

Meter Manufacturer	Model Number	Analytical Method
Meter Serial Number	Probe Serial Number	Method Detection Limit

Standard	Cal Standard Solution Expiration Date	Initial Calibration		Re-Calibration		Drift Check		Notes	Initials
		Time:		Time:		Time:			
		Cal	Read	Cal	Read	Read	Acceptable Performance?		

Stormwater Sample Analysis Results — Discharge Points

Sample Identification	Exception Reason (See Instructions)	Time Sample Collected	Time Sample Read	pH	Turbidity (NTU)	Other Parameter: _____ Units: _____

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STORM EVENT SAMPLING OR RECEIVING WATER MONITORING REPORT

Stormwater Sample Analysis Results — Run-On Points

Sample Identification	Exception Reason (See Instructions)	Time Sample Collected	Time Sample Read	pH	Turbidity (NTU)	Other Parameter: _____ Units: _____

Receiving Water Sample Analysis Results

Sample Identification	Exception Reason (See Instructions)	Time Sample Collected	Time Sample Read	pH	Turbidity (NTU)	Other Parameter: _____ Units: _____

Review and Record Keeping

Sampling event entered on Form DOT CEM-2051SW, "Stormwater Sampling and Analysis Log?"	Is there a numeric action level (NAL) exceedance in any of the results?	Is there a numeric effluent limit (NEL) exceedance in any of the results?
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

Are laboratory test results attached? ☐ Yes ☐ No

Certification

STORMWATER SAMPLING AND TESTING AGENT CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

STORMWATER SAMPLING AND TESTING AGENT SIGNATURE	DATE

STORMWATER SAMPLING AND TESTING AGENT NAME

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WATER POLLUTION CONTROL MANAGER CERTIFICATION

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WATER POLLUTION CONTROL MANAGER SIGNATURE	DATE

WATER POLLUTION CONTROL MANAGER NAME

CONTRACTOR CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

CONTRACTOR SIGNATURE	DATE

CONTRACTOR NAME

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Instructions

General Information

- This form complies with Order WQ 2022-0057-DWQ, NPDES Number CAS000002, “National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities.”
- The information shown on this form is required for projects with a Stormwater Pollution Prevention Plan (SWPPP) to document stormwater sampling and analysis. The information on this form is required for the Stormwater Annual Report for SWPPP projects.
- The Caltrans, *Construction Site Monitoring Program Guidance Manual*, latest edition, contains sampling guidance.
- Sampling and sample preservation must be in accordance with the current edition of, "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association).
- Collect, maintain, and ship samples according to the State Water Resources Control Board's Surface Water Ambient Monitoring Program's Quality Assurance Program Plan latest edition.
- In the event of a numeric action level (NAL) or numeric effluent limit (NEL) exceedance, notify the engineer immediately and submit an exceedance report within 48 hours after the conclusion of a qualifying precipitation event. Complete Form DOT CEM-2062SW, "Numeric Action Level Exceedance Report," or Form DOT CEM-2063SW, “Numeric Effluent Limit Exceedance Report.” The Qualified SWPPP Developer must perform a site inspection within 14 days after an NAL exceedance.
- Run-on samples are required for exceedances if there is a reason to believe that the run-on may contribute to the exceedance.
- If an additional sample location is identified at the time of sampling, write the latitude and longitude in place of the sample location, and amend the SWPPP if necessary to include the location, for further sampling needed at the new location.
- Include a copy of the completed form in the project SWPPP files.

Form

CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

PROJECT IDENTIFICATION NUMBER
For projects without a project identification number, write "N/A" in the field.

WASTE DISCHARGE IDENTIFICATION NUMBER
For projects with Water Pollution Control Program, enter “WPCP."

EXCEPTION REASON

Use the dropdown to select the exception reason for not having sampling results.

- N - No Run-off at time of inspection
- O - Outside of normal business hours
- U - Unsafe conditions or unsafe access

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STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

NOTICE OF DISCHARGE REPORT

DOT CEM-2061SW (NEW 09/2023)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
Choinumni Park Improvements 26501 Pine Flat Road, Sanger, CA 93657	Fresno County - Contract No. 24-24-PR
	PROJECT IDENTIFICATION NUMBER 11329
	WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER
	NOTICE OF DISCHARGE REPORT NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE DISCHARGE TYPE ☐ SWPPP, Risk Level 1 ☒ SWPPP, Risk Level 2 ☐ SWPPP, Risk Level 3 (see Note 1) ☐ Water Pollution Control Program (WPCP) ☐ Project resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2016-0010, NPDES No. CAG616002 (see Note 2)
WATER POLLUTION CONTROL MANAGER NAME	PHONE NUMBER

NOTICE OF DISCHARGE GENERAL INFORMATION

DISCHARGE LOCATION	DISCHARGE TYPE	SAMPLING
Description of location:	☐ Stormwater	☐ YES ☐ NO
	☐ Non-stormwater	If YES, check which parameters:
	☐ Other:	☐ Turbidity
Latitude:		☐ pH
Longitude:		☐ Other:

DISCHARGE OR SPILL IDENTIFIED BY

NAME _____ TITLE _____

ORGANIZATION OR AGENCY _____ PHONE NUMBER _____

PRELIMINARY NOTIFICATIONS	DATE	TIME
Discharge Discovered:		
Water Pollution Control Manager Notified:		
Resident Engineer Notified:		

Notes:
1. Stormwater Pollution Prevention (SWPPP)
2. National Pollutant Discharge Elimination System (NPDES)

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NOTICE OF DISCHARGE INFORMATION

1. Describe the constituent, source, and cause of the discharge:

2. Estimated volume of the discharge:

3. Estimated duration of the discharge:

4. Construction activities taking place:

5. Describe the existing best management practices at the discharge location:

6. Was the discharge eliminated? ☐ YES ☐ NO

7. Describe corrective actions taken:

8. Are further corrective actions planned? ☐ YES ☐ NO If YES, also submit Form DOT CEM-2035SW, "Corrective Action Summary."

9. Is a SWPPP or WPCP amendment needed? ☐ YES ☐ NO

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PHOTOGRAPHS

Include time stamped photographs of each corrective action taken.

CORRESPONDING REPORTS

Attach the following reports as applicable:

Form DOT CEM-2051SW, "Storm Event SWPPP Sampling Log," for stormwater discharges

Form DOT CEM-2052SW, "Storm Event Sampling/Receiving Water Monitoring Report," if sampling was performed

Form DOT CEM-2033SW, "Dewatering Operations Report," for dewatering event discharges

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Notice of Discharge Report Certification

WATER POLLUTION CONTROL MANAGER CERTIFICATION

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WATER POLLUTION CONTROL MANAGER SIGNATURE	DATE

WATER POLLUTION CONTROL MANAGER NAME

CONTRACTOR CERTIFICATION

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CONTRACTOR SIGNATURE	DATE

CONTRACTOR NAME

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RESIDENTIAL ENGINEER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

RESIDENT ENGINEER SIGNATURE	DATE

RESIDENT ENGINEER NAME

FOR CALTRANS USE ONLY

NOTIFICATIONS

Name of Regional Water Quality Control Board (RWQCB) personnel contacted within 24 hours:	Date:	Reported by:

WPCP NOTIFICATION

For WPCP projects, notify the NPDES coordinator:	Date:	Reported by:

SWPPP NOTIFICATION

Electronic SMARTS upload within 30 days after precipitation event, if requested by RWQCB:	Date report submitted:	Submitted by:

See the district spill communication plan(s), and other applicable regulations and permits, for other notifications that may be required. Other notifications as applicable, may include, but are not limited to:

- California Office of Emergency Services: Call (800) 852-7550 as soon as possible after discovery for any spill to state waters, and any spill of petroleum products greater than 42 gallons, upland or in waters of the state.
- National Response Center: Call (800) 424-8802 as soon as possible after discovery, discharges to navigable water, or from hazardous waste transportation.
- California Highway Patrol: Call 911 for any spills that impact the highways, or for hazardous spills.
- Fire departments: spills with fire risk
- Environmental Construction Liaison—Call to coordinate reporting to other agencies, including:
  - Reporting petroleum or other spills that threaten aquatic life to Department of Fish and Wildlife Office of Spill Prevention and Response Cal-TIP (888) 334-2258.
  - National Marine Fisheries Services for spills to the coastline.
- United States Coast Guard: Call (800) 424-8802 for spills to the coastline.
- County Health Department
- Native American Liaison: Call to report spills impacting tribal lands.

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Instructions

General Information

- This form is required for compliance with Section IV.B. of Order Number 2022-0057-DWQ, NPDES Number CAS000002, "National Pollutant Discharge Elimination System (NPDES) General Permit For Stormwater Discharges Associated With Construction And Land Disturbance Activities," and Order Number 2022-0033-DWQ, NPDES Number CAS000003, "National Pollution Discharge Elimination System - Statewide Stormwater Permit and Waste Discharge Requirements for State of California Department of Transportation."
- This form is to be completed when the contractor, Caltrans, State Water Resources Control Board, or Regional Water Quality Control Board (RWQCB) staff, or other agency, determines that untreated stormwater discharges, authorized non-stormwater discharges, unauthorized non-stormwater discharges, or other pollutant discharges have occurred.
- Submit the form within 24 hours after a non-stormwater discharge, or within 48 hours after: (1) the end of a storm event resulting in a discharge, or (2) receiving a written notice or an order from the RWQCB or another regulatory agency.
- Form DOT CEM-2052SW, "Storm Event Sampling or Receiving Water Monitoring Report," should be used for sampling that may be required by the RWQCB or other agencies.
- For Numeric Action Level or Numeric Effluent Limit exceedances, submit the appropriate Form DOT CEM-2062SW, "Numeric Action Level Exceedance Report," or Form DOT CEM-2063, "Numeric Effluent Limit Exceedance Report."
- Water quality standards can be found in the Water Quality Control Plan or applicable Regional Water Quality Control Board's Basin Plans, or other applicable regulations.
- Include a copy of this completed form in the project WPCP or SWPPP files.

FORM

- **CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE**
  For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.
- **PROJECT IDENTIFICATION NUMBER**
  For projects without a project identification number, write "N/A" in the field.
- **WASTE DISCHARGE IDENTIFICATION NUMBER**
  For projects with Water Pollution Control Program, enter “WPCP."

Do not leave any subsection blank.

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NUMERIC ACTION LEVEL EXCEEDANCE REPORT

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
Choinumni Park Improvements 26501 Pine Flat Road, Sanger, CA 93657	Fresno County - Contract No. 24-24-PR PROJECT IDENTIFICATION NUMBER 11329 WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE DISCHARGE TYPE ☐ SWPPP, Risk Level 1 ☒ SWPPP, Risk Level 2 ☐ SWPPP, Risk Level 3 (see Note 1) ☐ Project resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2016-0010, NPDES No. CAG616002 (see Note 2)
WATER POLLUTION CONTROL MANAGER NAME	PHONE NUMBER

GENERAL INFORMATION

DATE OF EXCEEDANCE

NUMERIC ACTION LEVEL (NAL) EXCEEDANCE SAMPLING SUMMARY

Sample Identification Number	Latitude	Longitude	Exceedance Parameter	Result	Units	Is this the first NAL exceedance for this discharge point on this project?
						☐ YES ☐ NO
						☐ YES ☐ NO
						☐ YES ☐ NO
						☐ YES ☐ NO

CORRESPONDING REPORTS

Attach the following reports:

Form DOT CEM-2051SW, "Storm Event SWPPP Sampling Log"

Form DOT CEM-2052SW, "Storm Event Sampling or Receiving Water Monitoring Report"

Form DOT CEM-2033SW, "Dewatering Operations Report for Dewatering Events", if applicable

Notes

1. Stormwater Pollution Prevention Plan (SWPPP)
2. National Pollutant Discharge Elimination System (NPDES)

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NUMERIC ACTION LEVEL EXCEEDANCE INFORMATION

1. Describe the constituent, source, and cause of the exceedance.

2. Estimate volume of the constituent discharged.

3. Estimate duration of the exceedance.

4. Construction activities taking place.

5. Describe existing best management practices at the discharge location.

6. Was the exceedance eliminated? ☐ YES ☐ NO

7. Describe the corrective actions taken.

8. Date of implementation of corrective actions.

9. Are further corrective actions planned? ☐ YES ☐ NO
   If YES, also submit Form DOT CEM-2035SW, "Stormwater Site Inspection Report Corrective Actions Summary."

10. Is a SWPPP amendment needed? ☐ YES ☐ NO

11. Scheduled date the Qualified SWPPP Developer will inspect the project site (date must be within 14 days of the NAL exceedance):

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PHOTOGRAPHS

Include time stamped photographs of each corrective action taken.

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Numeric Action Level Exceedance Report Certification

WATER POLLUTION CONTROL MANAGER CERIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

WATER POLLUTION CONTROL MANAGER NAME	
WATER POLLUTION CONTROL MANAGER SIGNATURE	DATE

CONTRACTOR CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

CONTRACTOR NAME	
CONTRACTOR SIGNATURE	DATE

RESIDENT ENGINEER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

RESIDENT ENGINEER NAME	
RESIDENT ENGINEER SIGNATURE	DATE

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FOR CALTRANS USE ONLY		
NOTIFICATIONS		
Name of Regional Water Quality Control Board (RWQCB) personnel contacted within 24 hours:	DATE REPORTED	REPORTED BY
Electronic SMARTS upload of field sampling results within 10 days of the exceedance, or within 30 days of receiving laboratory results for non-visible pollutants in receiving waters (Risk Level 3)	DATE REPORT SUBMITTED	SUBMITTED BY
NAL Exceedance Report, if not the first NAL exceedance, uploaded within 30 days of receiving request for upload from the RWQCB	DATE REPORT SUBMITTED	SUBMITTED BY

See district spill communication plan(s), and other applicable regulations and permits, for other notifications that may be required.

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INSTRUCTIONS

General Information

- This form is required for compliance with Order Number 2022-0057-DWQ, NPDES Number CAS000002, "National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Activities."
- Regional Water Quality Control Boards have the authority to require the submittal of a Numeric Action Level Exceedance Report.
- Include a copy of the completed form in the Storm Water Pollution Prevention Plan project files.
- Use Form DOT CEM-2061SW, "Notice of Discharge Report," for spills and discharges and Form DOT CEM-2063SW, "Numeric Effluent Limitation Violation Report," to report numeric effluent limitation exceedances.

Form

CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field

PROJECT IDENTIFICATION NUMBER
For projects without a project identification number, write "N/A" in the field.

Numeric Action Level Exceedance Information
Do not leave any subsection blank.

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NUMERIC EFFLUENT LIMITATION VIOLATION REPORT

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
Choinumni Park Improvements 26501 Pine Flat Road, Sanger, CA 93657	Fresno County - Contract No. 24-24-PR PROJECT IDENTIFICATION NUMBER 11329 WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE DISCHARGE TYPE ☐ SWPPP, Risk Level 1 ☒ SWPPP, Risk Level 2 ☐ SWPPP, Risk Level 3 (see Note 1) ☐ Project Resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2016-0010, NPDES No. CAG616002 (see Note 2)
WATER POLLUTION CONTROL MANAGER NAME	PHONE NUMBER

DATE OF EXCEEDANCE:

NUMERIC EFFLUENT LEVEL (NEL) EXCEEDANCE SAMPLING RESULTS

Sample Identification Number	Latitude	Longitude	Exceedance Parameter	Result	Units	Is this the first NEL exceedance for this discharge point on this project?
						☐ YES ☐ NO

Corresponding Reports

Attach the following reports as applicable:

- Form DOT CEM-2051SW, “Storm Event SWPPP Sampling Log,” for stormwater event exceedances.
- Form DOT CEM-2052SW, “Storm Event Sampling/Receiving Water Monitoring Report,” for stormwater event exceedances, or other sampling events.
- Form DOT CEM-2033SW, “Dewatering Operations Report.”
- Specific Active Treatment System (ATS) report(s).
- Nearby governmental rain gauge data for ATS numeric effluent level exceedances.

Notes:
1. Stormwater Pollution Prevention Plan (SWPPP)
2. National Pollutant Discharge Elimination System (NPDES)

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NUMERIC EFFLUENT LIMITATION EXCEEDANCE INFORMATION

1. Describe the constituent, source, and cause of the exceedance:
   (For ATS, describe what caused the ATS to exceed the NEL.)

2. Estimated volume of the constituent:

3. Estimated duration of the exceedance:

4. Construction activities taking place:

5. Describe the existing best management practices at the discharge location:

6. Was the exceedance eliminated? ☐ YES ☐ NO

7. Describe corrective actions taken:

8. Are further corrective actions planned? ☐ YES ☐ NO If YES, also submit Form DOT CEM-2035SW, "Corrective Action Summary."

9. Is a SWPPP amendment needed? ☐ YES ☐ NO

10. Has there been a previous NEL exceedance on the project in the past year? ☐ YES ☐ NO

11. Date of previous exceedance:

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PHOTOGRAPHS: Include time stamped photographs of each corrective action.

Click to add images.	Click to add images.

Numeric Effluent Limitation Violation Report Certification

WATER POLLUTION CONTROL MANAGER CERTIFICATION

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WATER POLLUTION CONTROL MANAGER SIGNATURE	DATE

WATER POLLUTION CONTROL MANAGER NAME

CONTRACTOR CERTIFICATION

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CONTRACTOR SIGNATURE	DATE

CONTRACTOR NAME

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NUMERIC EFFLUENT LIMITATION VIOLATION REPORT

RESIDENT ENGINEER CERTIFICATION

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RESIDENT ENGINEER SIGNATURE	DATE

RESIDENT ENGINEER NAME

FOR CALTRANS USE ONLY

Name of Regional Water Quality Control Board (RWQCB) personnel contacted within 24 hours:	Date reported:	Reported by:
Electronic SMARTS upload of sampling results within 10 days after the precipitation event (or for ATS, within 24 hours of receiving the results):	Date report submitted:	Submitted by:
Numeric Effluent Limitation Violation Report, if not the first NEL exceedance, uploaded within 14 days of the exceedance:	Date report submitted:	Submitted by:

See district spill communication plan(s), and applicable regulations and permits, for other notifications that may be required.

Instructions

General Information

- This form is required for compliance Order Number 2022-0057-DWQ, NPDES Number CAS000002, “National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities.” Regional Water Quality Control Boards have the authority to require the submittal of a Numeric Effluent Limitation Violation Report. Use Form DOT CEM-2061SW, “Notice of Discharge Report,” for spills and discharges, and Form DOT CEM-2062SW, “Numeric Action Level Exceedance Report,” to report numeric action level exceedances.
- Include a copy of this completed form in the project Storm Water Pollution Prevention Plan files.

Form

CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

PROJECT IDENTIFICATION NUMBER
For projects without a PIN, write N/A in the field.

NUMERIC EFFLUENT LIMITATION INFORMATION
Do not leave any subsection blank.

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PROJECT STORMWATER ANNUAL REPORT

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
Choinumni Park Improvements 26501 Pine Flat Road, Sanger, CA 93657	Fresno County - Contract No. 24-24-PR PROJECT IDENTIFICATION NUMBER 11329 WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE RISK LEVEL ☐ Storm Water Pollution Prevention Plan, (SWPPP), Risk Level 1 ☒ SWPPP, Risk Level 2 ☐ SWPPP, Risk Level 3
WATER POLLUTION CONTROL MANAGER NAME	PHONE NUMBER

GENERAL INFORMATION

Active time during the reporting period of July 1 through June 30

Was construction active 90 days or longer in the reporting period? ☐ YES ☐ NO

Were there any inactive periods that started and stopped during the reporting period? ☐ YES ☐ NO

If last answer was YES, list the start and stop dates of Inactive Period(s). START DATE _____ END DATE _____

Does the project discharge into the Los Peñasquitos Lagoon watershed? ☐ YES ☐ NO

If YES, attach a copy of the estimate of representative flow rate from the construction site for at least one precipitation event that generates discharge within the reporting year.

Personnel Summary

Primary Qualified SWPPP Developer (QSD):

Primary Qualified SWPPP Practitioner (QSP):

INDIVIDUAL(S) WHO PERFORMED INSPECTIONS, SAMPLING OR MEASUREMENTS

Name	Title	Inspection	Sampling	Measurements
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐

Exceptions Summary

Were there any visual inspection exceptions? ☐ YES ☐ NO

Were there any sampling violations? ☐ YES ☐ NO

Were there any General Permit violations? ☐ YES ☐ NO

Complete and attach the Annual Report Template found at this link: Form DOT CEM-2075SW Optional Spreadsheet (XLSX), or complete the applicable tables on the following pages.

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INSPECTION LOG

INSPECTION TYPE	NAME OF INSPECTOR	DATE	TIME (HH:MM)	LOCATION	ADDITIONAL COMMENTS

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INSPECTION EXCEPTIONS

INSPECTION TYPE	NAME OF INSPECTOR	DATE	TIME (HH:MM-HH:MM)	LOCATION	EXPLANATION OF MISSED INSPECTIONS

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SAMPLING EXCEPTIONS

SAMPLING TYPE	NAME OF SAMPLER	DATE	TIME (HH:MM-HH:MM)	LOCATION	EXPLANATION OF MISSED SAMPLING

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VIOLATIONS

VIOLATION TYPE	DESCRIPTION	REPORTED BY	DATE	TIME (HH:MM)	LOCATION	ADDITIONAL COMMENTS

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CORRECTIVE ACTIONS

DESCRIPTION	PERFORMED BY	DATE	TIME (HH:MM)	LOCATION	ADDITIONAL COMMENTS

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UNIMPLEMENTED CORRECTIVE ACTIONS

EXPLANATION	DATE	TIME (HH:MM)	LOCATION	ADDITIONAL COMMENTS

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Project Stormwater Annual Report

Electronic Signature Statement

I agree that by providing my electronic signature for this form, I agree to conduct business transactions by electronic means and that my electronic signature is the legal binding equivalent to my handwritten signature. I hereby agree that my electronic signature represents my execution or authentication of this form, and my intent to be bound by it.

WATER POLLUTION CONTROL MANAGER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

WATER POLLUTION CONTROL MANAGER NAME	DATE
WATER POLLUTION CONTROL MANAGER SIGNATURE	

CONTRACTOR CERTIFICATION

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CONTRACTOR NAME	DATE
CONTRACTOR SIGNATURE	

RESIDENT ENGINEER CERTIFICATION

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RESIDENT ENGINEER NAME	DATE
RESIDENT ENGINEER SIGNATURE	

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Instructions

General Information

- This form complies with Order WQ 2022-0057-DWQ, NPDES Number CAS000002, “National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities.”
- Submit a Stormwater Annual Report to the resident engineer by July 15 of any calendar year, for the previous construction period from July 1 through June 30, for any project that was active for a minimum of 90 days in that time period. Otherwise, submit within 15 days after Contract Acceptance.

Form

- **CONTRACT NUMBER / COUNTY / ROUTE / POSTMILE**
  For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.
- For all tables, for the LOCATION field, provide a general description of the location or vicinity where the action occurred. Examples: "NE Corner," "SW Concrete Washout," "North Fence," "Site-Wide." If necessary, dischargers may also provide additional location information in the LOCATION field or in the ADDITIONAL COMMENTS field. For example, dischargers may enter the specific coordinates of the location, or provide a more detailed description.
- For the VIOLATIONS table, provide a list of all project Notice of Violations issued by the Regional Water Quality Control Board for the reporting year.

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STORMWATER CHANGE OF INFORMATION (COI)

DOT CEM-2080SW (NEW 08/2023)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
	Fresno County - Contract No. 24-24-PR
Choinumni Park Improvements	PROJECT IDENTIFICATION NUMBER
	11329
26501 Pine Flat Road, Sanger, CA 93657	WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE DISCHARGE TYPE
	☐ Storm Water Pollution Prevention Plan, (SWPPP), Risk Level 1
	☒ SWPPP, Risk Level 2
	☐ SWPPP, Risk Level 3

CHANGE OF INFORMATION (COI) TRIGGER

SELECT ALL THAT APPLY:

- ☐ Revised Construction Start or End Dates
- ☐ Reduction or Addition of Disturbed Soil Area (DSA) Acreage
- ☐ Inactive Project Status (start or stop)
- ☐ Applicable Dewatering Discharges Changes
- ☐ Revised Treatment Best Management Practices Post-Construction

Complete specific section below as applicable based on selected COI trigger:

Revised Construction Start or End Dates—Include the following attachments:

- ☐ Time stamped photo documentation showing construction has not commenced
- ☐ Revised SWPPP
- ☐ Complete the "Project Revised Values" section, next page

Reduction or Increase of Project DSA—Include the following attachments:

- ☐ Site visual inspection by the Qualified SWPPP Practitioner before COI
- ☐ Time stamped photo documentation showing final stabilization for reduction of DSA trigger
- ☐ Revised site map
- ☐ Revised SWPPP
- ☐ Complete the "Project Revised Values" section, next page

Notes: The COI shall be submitted to Stormwater Multiple Application and Report Tracking System (SMARTS) within 30 days of a reduction in DSA. Do not increase DSA before authorization.

Change in Inactive Project Status—Project suspended for at least 30 days. Include the following attachments:

- ☐ Revised site map
- ☐ Time stamped photo documentation showing the temporary stabilization best management practices

Change in Dewatering Operations—Complete this section and include the following attachments:

- ☐ Revised SWPPP
- ☐ Revised site map

Dewatering operations starting date: _____

Resume Site Operations—Select the activity to be resumed:

- ☐ Site Operations (from inactive status)
- ☐ Passive Treatment System
- ☐ Active Treatment System

Check the applicable attachment(s):

- ☐ Revised site map
- ☐ Revised Passive Treatment Plan
- ☐ Revised Active Treatment System Plan

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STORMWATER CHANGE OF INFORMATION (COI)

PROJECT REVISED VALUES: Complete this section for revised start or end dates, or an increase or decrease in DSA.

CONSTRUCTION DETAILS:	CURRENT VALUES	REVISED VALUES
TOTAL DISTRUBED AREA (ACRES):		
TOTAL SITE AREA (ACRES):		
CONSTRUCTION START DATE:		
CONSTRUCTION COMPLETION DATE:		
R VALUE FACTOR		
K VALUE FACTOR		
LS VALUE FACTOR		
RISK LEVEL		

Change of Information Certification

QUALIFIED SWPPP DEVELOPER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

QUALIFIED SWPPP DEVELOPER NAME

QUALIFIED SWPPP DEVELOPER SIGNATURE	DATE

WATER POLLUTION CONTROL MANAGER CERTIFICATION

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WATER POLLUTION CONTROL MANAGER NAME

WATER POLLUTION CONTROL MANAGER SIGNATURE	DATE

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CONTRACTOR CERTIFICATION

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CONTRACTOR NAME	
CONTRACTOR SIGNATURE	DATE

RESIDENT ENGINEER CERTIFICATION

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RESIDENT ENGINEER NAME	
RESIDENT ENGINEER SIGNATURE	DATE

INSTRUCTIONS

GENERAL INFORMATION

This form complies with Order WQ 2022-0057-DWQ, NPDES Number CAS000002, “National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities.”

Form

CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE

For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

PROJECT IDENTIFICATION NUMBER

For projects without a project identification number, write "N/A" in the field.

STORMWATER NOTICE OF TERMINATION AND FINAL STORMWATER INSPECTION REPORT

DOT CEM-2090SW (NEW 02/2024)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
	Fresno County - Contract No. 24-24-PR
Choinumni Park Improvements	PROJECT IDENTIFICATION NUMBER
	11329
26501 Pine Flat Road, Sanger, CA 93657	WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE DISCHARGE TYPE
	☐ Storm Water Pollution Prevention Plan, (SWPPP), Risk Level 1
	☒ SWPPP, Risk Level 2
	☐ SWPPP, Risk Level 3
WATER POLLUTION CONTROL MANAGER NAME	PHONE NUMBER
INSPECTOR NAME	QUALIFIED SWPPP PRACTITIONER (QSP) CERTIFICATE NUMBER

NOTICE OF TERMINATION GENERAL INFORMATION

FINAL STABILIZATION METHOD: ***Check all that apply and attach supporting documents.***

☐ **70 Percent Final Cover Method**

Requires permanent vegetative cover to be evenly established over 70 percent of all disturbed soil areas. In areas that naturally have low vegetative coverage, for example, deserts, 70 percent of natural conditions of local undisturbed areas is acceptable. Photos of all site areas are required to verify compliance with the 70 percent final cover requirement.

☐ **Revised Universal Soil Loss Equation (RUSLE or RUSLE2) Method**

Computational proof is required. Site conditions must match values used in method computation. Photos of all site areas are required to verify pre-construction and post-construction conditions used in the computations.

☐ **Custom Method**

The discharger may request approval from the Regional Water Board to use a method or analytical model other than those previously listed to demonstrate that the site complies with the final stabilization requirements. Photos of all site areas are required to verify the custom method used.

SITE INSPECTION GENERAL: ***All answers in this section must be YES for form to be complete.***

All construction activities are complete. ☐ YES ☐ NO Date of project completion: _____

Construction-related pollutants that could potentially discharge from the project site have been removed from the site: ☐ YES ☐ NO

Construction-related equipment, materials, and all temporary BMP have been removed from the site: ☐ YES ☐ NO

Construction-related materials and wastes have been disposed of properly: ☐ YES ☐ NO

SITE INSPECTION OF SPECIFIC AREAS AND BMP

Established Vegetation ☐ YES ☐ NO	70 percent coverage		Evenly distributed without large bare areas		Exceptions (see Note)		Exceptions and Comments	Photo Numbers
	Yes	No	Yes	No	Yes	No		
Location 1								
Location 2								
Location 3								

Note: Exceptions allowed by the Construction General Permit Include: a. arid, semi-arid, and drought-stricken areas; b. disturbed areas on agricultural land that are restored to their pre-construction agricultural use; c. areas that need to remain disturbed, for example racetracks, animal corrals, and baseball diamonds.

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STORMWATER NOTICE OF TERMINATION AND FINAL STORMWATER INSPECTION REPORT

DOT CEM-2090SW (NEW 02/2024)

Non-Vegetative Stabilization ☐ YES ☐ NO	Description of BMP	Effective cover provided? Yes	Effective cover provided? No	Photo Numbers
Location 1				
Location 2				
Location 3				

Areas to Remain Disturbed ☐ YES ☐ NO	Exception Description — see Note in the Established Vegetation section	Photo Numbers
Location 1		
Location 2		

Post-Construction Treatment BMP ☐ YES ☐ NO

☐ Design Pollution Prevention Infiltration Area ☐ Bioswales ☐ Biostrips ☐ Bioretention
☐ Media filters ☐ Open-graded friction course ☐ Detention devices ☐ Infiltration devices
☐ Traction sand traps ☐ Full capture trash devices ☐ Other _____

	Description of Treatment Best Management Practices	Photo Numbers
Location 1		
Location 2		

Design Pollution Prevention Low Impact Development ☐ YES ☐ NO	Description of Features	Photo Numbers

SUPPLEMENTAL INFORMATION

Has the project been active for at least 90 days in the reporting period—July 1 to June 30? ☐ YES ☐ NO

If YES, has the Stormwater Annual Report been submitted for the reporting period? ☐ YES ☐ NO

Is the final site map attached? (see instructions) ☐ YES ☐ NO

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Certifications

INSPECTOR CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I am also aware that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that my electronic signature is the legal equivalent of my handwritten signature. My signature on this form certifies that my electronic signature is for my own use, that I will keep it confidential, and that I will not delegate or share it with any other person. Should I wish to delegate such authority, I will do so formally in writing and electronically notify the State Water Board using Stormwater Multiple Application and Report Tracking System (SMARTS) of such delegation within 10 days of the delegation. I further certify that I will protect my electronic signature from unauthorized use, and that I will contact the State Water Board, within two business days of discovery, if I suspect that my electronic signature has been lost, stolen, or otherwise compromised.

INSPECTOR NAME

INSPECTOR SIGNATURE	DATE

WATER POLLUTION CONTROL MANAGER CERTIFICATION

Write "SAME" if the inspector is the water pollution control manager.

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WATER POLLUTION CONTROL MANAGER NAME

WATER POLLUTION CONTROL MANAGER SIGNATURE	DATE

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CONTRACTOR NAME

CONTRACTOR SIGNATURE	DATE

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RESIDENT ENGINEER NAME	
RESIDENT ENGINEER SIGNATURE	DATE

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Instructions

GENERAL INFORMATION

- This form complies with Order WQ 2022-0057-DWQ, NPDES Number CAS000002, “National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities.”
- If the inspection form does not contain enough lines to report all locations on a job site, use the plus sign to add rows to report additional locations so that all best management practices (BMP) locations are inspected and reported.
- The inspector conducting the final inspection must be a Qualified SWPPP Practitioner or Qualified SWPPP Developer.
- Attach the final site map, including the following:
  a. Project boundaries and adjacent lands with labeled key features, such as roadways and waterbodies.
  b. Developed drainage basin boundaries and discharge location points.
  c. Site entrances and exits, lot boundaries, roads, structures, and features related to the project that may be used as a reference.
  d. Specific permanent erosion control BMP, post-construction BMP, and low impact development features.
  e. Individual erosion control BMP (including final landscaping) identified using hatch patterns, symbols, or shading unique to each BMP.
  f. Location and orientation of all photos used to document final site conditions and demonstrate compliance with post-construction requirements of this General Permit.
  g. If applicable, areas of the site being transferred to new ownership, and the name and contact information of the owner.
- Attach and number photographs demonstrating final stabilization, any exceptions, the implementation of post-construction BMP, and low-impact development, as applicable. Reference photographs by number—on the form and on the final site map.

FORM

- CONTRACT NUMBER/COUNTY/ROUTE/POSTMILE
  For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.
- PROJECT IDENTIFICATION NUMBER
  For projects without a project identification number, write "N/A" in the field.

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SELF-DEALING TRANSACTION DISCLOSURE FORM

(1) Company Board Member Information:

Name: _____ Date: _____

Job Title: _____

(2) Company/Agency Name and Address:

_____

_____

_____

_____

(3) Disclosure (Please describe the nature of the self-dealing transaction you are a party to)

_____

_____

_____

_____

(4) Explain why this self-dealing transaction is consistent with the requirements of Corporations Code 5233 (a)

_____

_____

_____

_____

_____

_____

_____

(5) Authorized Signature

Signature: _____ Date: _____

SELF-DEALING TRANSACTION DISCLOSURE FORM INSTRUCTIONS

In order to conduct business with the County of Fresno (hereinafter referred to as "County"), members of a contractor's board of directors (hereinafter referred to as "County Contractor"), must disclose any self-dealing transactions that they are a party to while providing goods, performing services, or both for the County. A self-dealing transaction is defined below:

"A self-dealing transaction means a transaction to which the corporation is a party and which one or more of its directors has a material financial interest."

The definition above will be utilized for purposes of completing the disclosure form.

(1) Enter board member's name, job title (if applicable), and date this disclosure is being made.

(2) Enter the board member's company/agency name and address.

(3) Describe in detail the nature of the self-dealing transaction that is being disclosed to the County. At a minimum, include a description of the following:

   a. The name of the agency/company with which the corporation has the transaction; and

   b. The nature of the material financial interest in the Corporation's transaction that the board member has.

(4) Describe in detail why the self-dealing transaction is appropriate based on applicable provisions of the Corporations Codes.

(5) Form must be signed by the board member that is involved in the self-dealing transaction described in Sections (3) and (4).

BID BOOK

CHOINUMNI PARK IMPROVEMENTS

26501 PINE FLAT ROAD SANGER, CA 93657

STATE OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION
PROJECT NUMBER: RG-10-001

BUDGET / ACCOUNT: 8867 / 8150 / 91867

Department of Public Works and Planning

CONTRACT NUMBER 24-24-PR

B I D B O O K T A B L E O F C O N T E N T S

CHOINUMNI PARK IMPROVEMENTS
CONTRACT NUMBER 24-24-PR

PROPOSAL NUMBER(S)	TITLE
NOT APPLICABLE	INSTRUCTIONS FOR COMPLETING THE BID BOOK
1	PROPOSAL TO THE BOARD OF SUPERVISORS OF THE COUNTY OF FRESNO
2	BID ITEM LIST
3	EVALUATION OF BID ITEM LIST
4	BID SECURITY
5	NON-COLLUSION DECLARATION
6	PUBLIC CONTRACT CODE SECTION 10285.1 STATEMENT
7	PUBLIC CONTRACT CODE SECTION 10162 QUESTIONNAIRE AND PUBLIC CONTRACT CODE 10232 STATEMENT
8	SUBCONTRACTORS
9	TITLE 13, CALIFORNIA CODE OF REGULATIONS § 2449(l) GENERAL REQUIREMENTS FOR IN-USE OFF-ROAD DIESEL-FUELED FLEETS
10 - 18	NOT USED
19	GUARANTY

INSTRUCTIONS FOR COMPLETING THE BID BOOK

General

Complete forms in the Bid book.

Submit an electronic bid online at http://www.BidExpress.com or submit a hardcopy bid:

1. Under sealed cover addressed to the Department and labeled with the name of the bidder, contract number, the name of the project and the statement 'Do Not Open Until The Time Of Bid Opening.'
2. Marked as a bid
3. Identifying the contract number and the bid opening date

Certain bid forms must be submitted with the bid and properly executed.

Certain other forms and information must be submitted either with the bid or within the prescribed period after bid opening as specified elsewhere in these special provisions.

Failure to submit the forms and information as specified results in a nonresponsive bid.

If an agent other than the authorized corporation officer or a partnership member signs the bid, file a Power of Attorney with the Department either before opening bids or with the bid. Otherwise, the bid may be nonresponsive.

For more information regarding bidding, refer to Section 2 Bidding in the Special Provisions and Standard Specifications.

Bid Item List and Bid Comparison

Submit a bid based on the bid item quantities the Department shows on the Bid Item List. Bids will be evaluated and the low bidder determined as indicated in the *Notice to Bidders.*

Bid Document Completion

Proposal items are identified by title and by the word “Proposal” followed by the number assigned to the proposal item in question. Proposal items are included in the *Bid Book.*

Proposal to the Board of Supervisors of Fresno County – Proposal 1

Provided for information.

Bid Item List – Proposal 2

One or more sheet(s) or list(s) upon which the bidder completes the bid.

Fill out completely including a unit price and total for each unit price-based item and a total for each lump sum item.

Do not make any additions such as “plus tax”, “plus freight”, or conditions such as “less 2% if paid by 15th”.

Use ink or typewriter for paper bids.

Evaluation of Bid Item List – Proposal 3

Describes how inconsistences and irregularities are evaluated and corrected when Design Services reviews the Bid Item List.

Bid Security and Signature – Proposal 4

Submit one of the following forms of bidder's security equal to at least 10 percent (10%) of the bid:

- Cash

- Cashier's check
- Certified check
- Signed bidder's bond by an admitted surety insurer

Indicate type of bid security provided.

- Cash – Acceptable but not recommended. Cash is deposited in a clearing account and is returned to bidders by County warrant. This process may take several weeks.
- Cashier’s or Certified Checks. This type of security is held until the bid is no longer under consideration. If submitted by a potential awardee, they will be returned when the contract is fully executed by the bidder and bonds and insurance have been approved.
- Bid Bonds - Must be signed by the bidder and by the attorney-in-fact for the bonding company. Provide notarized signature of attorney-in-fact accompanied by bonding company’s affidavit authorizing attorney-in-fact to execute bonds. An unsigned bid bond will be cause for rejection. If providing electronically, the bid must either be verified via Tinubu or Surety2000 through BidExpress, or a scanned copy must be attached to the electronic bid with an original notarized hardcopy and received by Design Services before 4:00 PM on the fifth (5) calendar days after the bid opening.

Bonding companies may provide their own bid bond forms. The Bid Security and Signature sections must be completed by the bidder and submitted with their bid.

Electronic bids, if not accompanied by an electronic bid bond, may provide one of the listed bidder’s security in a sealed envelope in accordance with the labeling and address instructions listed in the Notice to Bidders prior to the bid opening.

Acknowledge Addenda

Provide contractor’s license information.

State business name and if business is a:

- Corporation - list officers
- Partnership - list partners
- Joint Venture - list members; if members are corporations or partnerships, list their officers or partners.
- Individual - list Owner’s name and firm name style

Signature of Bidder - the following lists types of companies and corresponding authorized signers.

- Corporation - by an officer
- Partnership - by a partner
- Joint Venture - by a member
- Individual - by the Owner

If signature is by a Branch Manager, Estimator, Agent, etc., the bid must be accompanied by a power of attorney authorizing the individual to sign the bid in question or to sign bids more generally, otherwise the bid may be rejected.

- Business Address - Firm’s Street Address
- Mailing Address - P.O. Box or Street Address
- Complete, sign, and return with bid.

Non-Collusion Declaration – Proposal 5

Must be completed, signed, and returned with bid.

Public Contract Code Section 10285.1 Statement – Proposal 6

Select “has” or “has not” in accordance with instructions on form, return completed form with bid. Note that signing the bid constitutes signing this statement.

Public Contract Code Section 10162 Questionnaire And Public Contract Code 10232 Statement – Proposal 7

Select ”yes” or “no” accordance with instructions on form, include explanation if “yes” is selected. Return completed form with bid. Note that signing the bid constitutes signing this questionnaire and statement.

Subcontractors – Proposal 8

Sheet(s) or spaces where bidders list subcontractors. List each subcontractor to perform work in an amount in excess of 1/2 of 1 percent of the total bid (Pub. Contract Code § 4100 et seq.).

The *Subcontractor List* submitted with the bid must show the name, location of business, work portions to be performed, the contractor’s license number and the public works contractor registration number issued pursuant to Labor Code Section 1725.5, for each listed subcontractor.

- Use subcontractor's business name style as registered with the License Board.
- Specify the city in which the subcontractor’s business is located and the state if other than California.
- Description of the work to be performed by the subcontractor. Indicate with bid item numbers from the bid item list and/or work descriptions similar to those on bid item list.
- List license number for each subcontractor.

Upon request from Design Services, provide the following additional information within 24 hours of bid opening if not included on the *Subcontractor List* submitted with the bid:

- Complete physical address for each subcontractor listed.
- Percentage of the total bid or dollar amount associated with each subcontractor listed.
- Department of Industrial Relations registration number.

Title 13, California Code of Regulations § 2449(i) General Requirements for In-Use Off-Road Diesel-Fueled Fleets – Proposal 9

Contractors, if applicable, must submit valid Certificates of Reported Compliance with their bid. Subcontractor certificates will be due no later than 4:00 PM on the fifth (5th) calendar day after the bid opening if not submitted with the bid.

Proposal 10 - Proposal 18 – Not Used

Guaranty – Proposal 19

Does not need to be signed with the bid. Part of the contract which must be signed by the contractor when contract is executed.

General Info

Alt Total: $1,358,454.06

Total:

$3,481,231.10

Number

24-24-PR

Deadline

04/03/2025 02:00 PM PDT

Vendor

JT2 Inc dba Todd Companies

Submitted

04/03/2025 01:35 PM PDT

Signed by

JIM TODD **Account Holder**
Lauren Todd

Opened

04/03/2025 02:27 PM PDT **By**
jwongsing@fresnocountyca.gov

Description

Choinumni Park Improvements

The work to be done consists, in general, of improvements to Choinumni Park including furnishing and installing picnic/barbecue areas, prefabricated shelters, playground and play structures, horseshoe pits, and concrete cornhole boards, miscellaneous signage and striping, and miscellaneous electrical and plumbing improvements throughout the park. The work will also include two new trails, application of chip seals on existing roads and camp stalls, and replacement of the existing campsite fire pits and picnic tables. This project contains additive items including construction of restrooms and septic system, informational kiosks along the trails, installation of solar powered lights, application of additional chip seal to the remaining roads throughout the park and the construction of a basketball court and volleyball courts.

State of California Department of Parks and Recreation Project Number: RG-10-001

Allows zero unit prices and labor

Yes

Allows negative unit prices and labor

Yes

Attachment List

Project Website
RFC form, bid opening details, any Supplemental Information including RFC responses, prebid conference information, etc.

Specifications (25.1 MB)
Specifications (25.1 MB)

Plans (42 MB)
Plans (42 MB)

Instructions for Bidders
Link to Instructions for Bidders in the Specifications (25.1 MB)

Addendum 1
Addendum 1 (423.8 KB)

Proposal to the County of Fresno - Proposal 1

Proposal to the County of Fresno

hereinafter called the Owner

CHOINUMNI PARK IMPROVEMENTS

26501 PINE FLAT ROAD SANGER, CA 93657

STATE OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION

PROJECT NUMBER: RG-10-001

The work embraced herein shall be done in accordance with the 2023 Standard Specifications and with the 2023 Standard Plans, of the State of California, Department of Transportation insofar as the same may apply and in accordance with these special provisions.

Except to the extent that they may conflict with these special provisions, revised Standard Specifications apply to the extent included in the section entitled “Project Details” of the book entitled “Specifications."

The work to be done is shown on a set of Plans, Department File No. 11329, entitled: “Choinumni Park Improvements.”

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 they have carefully examined the location of the proposed work, the annexed proposed form of contract, and the plans therein referred to; and they propose and agree if this proposal is accepted, that they 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 they will take in full payment therefor the following unit prices, to-wit:

Bid Item List - Base Bid - General - Proposal 2

$337,455.20

Item No.	Quantity	Unit	Item Description	Item Price	Extension
1	1	LS	Mobilization & Demobilization	$98,644.00	$98,644.00
2	1	LS	Job Site Management	$91,952.00	$91,952.00
3	1	LS	Implement Approved Storm Water Pollution Prevention Plan (SWPPP)	$46,799.20	$46,799.20
4	1,500	$	State Water Resources Control Board Notice of Intent Filing Fee	$1.00	$1,500.00
5	1	LS	Demolition, Clearing & Grubbing	$98,560.00	$98,560.00
					Total: $337,455.20

Bid Item List - Base Bid - Site Preparation and Grading - Proposal 2

$267,360.80

Item No.	Quantity	Unit	Item Description	Item Price	Extension
6	1	LS	Construction Staking	$26,000.80	$26,000.80
7	1	LS	Earthwork (Rough & Fine Grading)	$241,360.00	$241,360.00
					Total: $267,360.80

Bid Item List - Base Bid - Bases & Sidewalk at Various Locations - Proposal 2

$264,264.10

Item No.	Quantity	Unit	Item Description	Item Price	Extension
8	143	CY	Construct 6" Thick Class II Aggregate Base - Final Pay Item	$129.23	$18,479.89
9	23	CY	Construct 4" Thick Class II Aggregate Base for Playground Embankment Mound	$204.52	$4,703.96
10	5,190	SF	Construct 4" Thick Concrete	$10.34	$53,664.60
11	13,955	SF	Construct 6" Thick Concrete Pads and Sidewalk	$13.43	$187,415.65
					Total: $264,264.10

Bid Item List - Base Bid - Parking Lot & ADA Site Concrete Improvements - Proposal 2

$115,438.34

Item No.	Quantity	Unit	Item Description	Item Price	Extension
12	6,442	SF	Construct 6" Thick Reinforced Concrete Pavement	$15.41	$99,271.22
13	26	EA	Install 5' Long x 3' Wide Detectable Warning Surface Panels Complete and in Place	$562.84	$14,633.84
14	7	EA	Install 72" Precast Concrete Wheel Stops	$219.04	$1,533.28
					Total: $115,438.34

Bid Item List - Base Bid - Landscaping & Decorative Concrete - Proposal 2

$248,552.80

Item No.	Quantity	Unit	Item Description	Item Price	Extension
15	1	LS	Perform All Landscape Construction Work	$194,363.68	$194,363.68
16	752	SF	Construct 6" Thick Reinforced Decorative Concrete Crosswalks	$72.06	$54,189.12
					Total: $248,552.80

Bid Item List - Base Bid - Hiking Trail - Proposal 2

$24,786.72

Item No.	Quantity	Unit	Item Description	Item Price	Extension
17	1	LS	Construct Hiking Trail and Place River Rock	$24,786.72	$24,786.72
					Total: $24,786.72

Bid Item List - Base Bid - Site Furnishings - Proposal 2

$211,956.99

Item No.	Quantity	Unit	Item Description	Item Price	Extension
18	90	EA	Install 92" Smooth Top Picnic Table Standard Legs (Model# 100S)	$1,487.14	$133,842.60
19	1	EA	Install 96" Service Table Wide Leg (Model# 102W)	$2,630.88	$2,630.88
20	2	EA	Install Group BBQ with Adjustable Grill (Model# 3001AG)	$6,774.88	$13,549.76
21	4	EA	Install ADA 30" X 17 3/8" High, Non-Adjustable, Single Flange, Single Wall, Painted, Fire Ring, 23" High Draft Holes, with (2) Staples (Model# 11302-SP23)	$1,151.64	$4,606.56
22	1	EA	Install Group Fire Pit with Steel Liner(4' diameter) (Model# 304, 304SL)	$4,029.76	$4,029.76
23	5	EA	Install Corn Hole Game set (bean toss)-2 Pieces (Model# 1510)	$2,037.95	$10,189.75
24	8	EA	Install 72" Contour Bench (Model# 407)	$1,679.44	$13,435.52
25	4	EA	Install 14" x 83.5" Bench with 203" radius curve (Model# 404R203)	$1,721.44	$6,885.76
					Total: $211,956.99

Item No.	Quantity	Unit	Item Description	Item Price	Extension
26	1	LS	Relocate Existing Fire Rings As Shown on Plans Complete and In Place	$22,786.40	$22,786.40
					Total: $211,956.99

Bid Item List - Base Bid - Pavilion Structures - Proposal 2

$217,374.64

Item No.	Quantity	Unit	Item Description	Item Price	Extension
27	2	EA	Construct 30' x 40' x 8.5' Rectangular Gable Shelter Complete and in Place	$84,362.32	$168,724.64
28	5,000	SF	Construct Pavilion Concrete Pad	$9.73	$48,650.00
					Total: $217,374.64

Bid Item List - Base Bid - Multi-Age Playground Sites - Proposal 2

$197,795.00

Item No.	Quantity	Unit	Item Description	Item Price	Extension
29	1	EA	Install Play Stack (Model# 4500-008) Complete and In Place	$51,320.64	$51,320.64
30	1	LS	Install 7ft Embankment Slide (Model# C-1650-71-EMB) and Turf Complete and In Place	$82,940.48	$82,940.48
31	4	EA	Install Log Steppers (Model# 1501-3) Complete and In Place	$1,821.68	$7,286.72
32	1	EA	Install Age 2-5 Log Scramble (Model# 4500-304) Complete and In Place	$11,284.00	$11,284.00
33	1	EA	Install Age 5-12 Log Scramble (Model# 4500-305) Complete and In Place	$17,633.28	$17,633.28
34	346	LF	Construct 6" Wide Playground Concrete Key Complete and In Place	$44.52	$15,403.92
35	2,900	SF	Construct 12" Thick Playground Play Area Wood Fiber Surfacing Complete and In Place	$2.58	$7,482.00
36	58	LF	Construct 6" Concrete Retaining Curb	$76.62	$4,443.96
					Total: $197,795.00

Bid Item List - Base Bid - Site Electrical - Proposal 2

$118,720.00

Item No.	Quantity	Unit	Item Description	Item Price	Extension
37	1	LS	Construct All Park Site electrical conduits, wiring, fixture, panels, and apparatuses complete and In place	$118,720.00	$118,720.00
					Total: $118,720.00

Bid Item List - Base Bid - Striping, Signage, and Markings - Proposal 2

$16,872.80

Item No.	Quantity	Unit	Item Description	Item Price	Extension
38	1	LS	Signage, Striping and Markings	$16,872.80	$16,872.80
					Total: $16,872.80

Bid Item List - Base Bid - Hose Bibs - Proposal 2

$30,240.00

Item No.	Quantity	Unit	Item Description	Item Price	Extension
39	1	LS	Relocate and Install Self-Closing Water Hose Bibs Complete and In Place	$30,240.00	$30,240.00
					Total: $30,240.00

Bid Item List - Base Bid - Asphalt Treatment - Proposal 2

$71,959.65

Item No.	Quantity	Unit	Item Description	Item Price	Extension
40	5,050	SY	Construct Polymer Modified Emulsion (PME) Chip Seal	$10.59	$53,479.50
41	39	TON	Construct 'Type A' Asphalt Concrete Pavement Sections and Patches	$473.85	$18,480.15
					Total: $71,959.65

Bid Item List - Additive 1 - Trail Kiosk - Proposal 2

$259,394.22

Item No.	Quantity	Unit	Item Description	Item Price	Extension
Alternate: Owner-agency may award independently from entire bid.					
42	6	EA	Construct Two-Post Timber Kiosk	$43,232.37	$259,394.22
				Alternate Total:	**$259,394.22**
				Total:	**$259,394.22**

Bid Item List - Additive 2 - Park Lighting - Proposal 2

$194,535.12

Item No.	Quantity	Unit	Item Description	Item Price	Extension
Alternate: Owner-agency may award independently from entire bid.					
43	36	EA	Install Solar-Powered Lighted Bollards (PLB Series)	$4,610.42	$165,975.12
44	12	EA	Install RAB Sconce Lights for Pavilions	$2,380.00	$28,560.00
				Alternate Total: $194,535.12	
				Total: $194,535.12	

Bid Item List - Additive 3 - Sand Volleyball Courts - Proposal 2

$127,738.24

Item No.	Quantity	Unit	Item Description	Item Price	Extension
Alternate: Owner-agency may award independently from entire bid.					
45	1	LS	Construct Sand Volleyball Courts Complete and In Place	$127,738.24	$127,738.24
				Alternate Total:	**$127,738.24**
				Total:	**$127,738.24**

Bid Item List - Additive 4 - Basketball Court and Equipment - Proposal 2

$73,678.08

Item No.	Quantity	Unit	Item Description	Item Price	Extension
Alternate: Owner-agency may award independently from entire bid.					
46	6,048	SF	Construct 6" Thick Reinforced Basketball Court Concrete	$9.13	$55,218.24
47	2	EA	Install Fixed Height Basketball Hoop	$9,229.92	$18,459.84
				Alternate Total: $73,678.08	
				Total: $73,678.08	

Bid Item List - Additive 5 - Asphalt Treatment for Rest of Existing HMA Pavement - Proposal 2

$123,234.00

Item No.	Quantity	Unit	Item Description	Item Price	Extension
Alternate: Owner-agency may award independently from entire bid.					
48	22,325	SY	Construct Polymer Modified Emulsion (PME) Chip Seal	$5.52	$123,234.00
				Alternate Total:	**$123,234.00**
				Total:	**$123,234.00**

Bid Item List - Additive 6 - Restroom & Septic Sewage System - Proposal 2

$579,874.40

Item No.	Quantity	Unit	Item Description	Item Price	Extension
Alternate: Owner-agency may award independently from entire bid.					
49	1	LS	Construct Prefabricated Public Restroom Building Model# S-301 (Santiago) Complete and In Place	$344,674.40	$344,674.40
50	1	LS	Construct Septic Sewage System Complete and In Place	$235,200.00	$235,200.00
				Alternate Total:	**$579,874.40**
				Total:	**$579,874.40**

Evaluation of Bid Item List - Proposal 3

Abbreviations used in the bid proposal sheet are identified in Section 1-1.06, “Abbreviations,” of these special provisions.

Bids are required for the entire work. Bids will be compared on the basis indicated in the Notice to Bidders. The bidder shall set forth for each unit basis item of work a unit price and a total for the item, and for each lump sum item a total for the item, all in clearly legible figures in the respective spaces provided for that purpose. In the case of unit basis items, the amount set forth under the "Item Total" column shall be the product of the unit price bid and the estimated quantity for the item.

In case of discrepancy between the unit price and the total set forth for a unit basis item, the unit price shall prevail, except as provided in (a) or (b), as follows:

(a) If the amount set forth as a unit price is unreadable or otherwise unclear, or is omitted, or is the same as the amount as the entry in the item total column, then the amount set forth in the item total column for the item shall prevail and shall be divided by the estimated quantity for the item and the price thus obtained shall be the unit price;

(b) (Decimal Errors) If the product of the entered unit price and the estimated quantity is exactly off by a factor of ten, one hundred, etc., or one-tenth, or one-hundredth, etc. from the entered total, the discrepancy will be resolved by using the entered unit price or item total, whichever most closely approximates percentage-wise the unit price or item total in the Owner's Final Estimate of cost.

If both the unit price and the item total are unreadable or otherwise unclear, or are omitted, the bid may be deemed irregular. Likewise, if the item total for a lump sum item is unreadable or otherwise unclear, or is omitted, the bid may be deemed irregular unless the project being bid has only a single item and a clear, readable total bid is provided.

Symbols such as commas and dollar signs will be ignored and have no mathematical significance in establishing any unit price or item total or lump sums. Written unit prices, item totals and lump sums will be interpreted according to the number of digits and, if applicable, decimal placement. Cents symbols also have no significance in establishing any unit price or item total since all figures are assumed to be expressed in dollars and/or decimal fractions of a dollar. Bids on lump sum items shall be item totals only; if any unit price for a lump sum item is included in a bid and it differs from the item total, the items total shall prevail.

The foregoing provisions for the resolution of specific irregularities cannot be so comprehensive as to cover every omission, inconsistency, error or other irregularity which may occur in a bid. Any situation not specifically provided for will be determined in the discretion of the Owner, and that discretion will be exercised in the manner deemed by the Owner to best protect the public interest in the prompt and economical completion of the work. The decision of the Owner respecting the amount of a bid, or the existence or treatment of an irregularity in a bid, shall be final.

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 eight (8) days not including Saturdays, 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.

Bid Security - Proposal 4

Bond Percentage

10.00%

Guarantee Method *

Cash, Cashier's Check,
Certified Check, Paper Bid
Bond, Scan of Paper Bid
Bond

Cash, Cashier's Check, Certified Check, Paper Bid Bond, Scan of Paper Bid Bond

Confirmation *

I have provided an Scan of a Paper Bid Bond for 10.00% of the bid total amount attached below.

You must either attach an electronic bid bond here or provide an original bid bond (or other form of bid security authorized by Public Contract Code Section 20129(a)) to the office location according to the instructions in the Notice to Bidders ***prior to*** the bid opening.

Addendum Acknowledgement - Proposal 4

Bidders must acknowledge all addenda. The Bidder acknowledges receipt of the following **ADDENDA:**

(Enter the number the Designer has assigned to each of the addenda that the Bidder is acknowledging)

Type N/A if no addenda were issued. Click "+" to add additional fields.

Addendum No. *

1

Dated *

3/27/25

Bidder Signature - Proposal 4

Business Name *

JT2 Inc dba Todd Companies

Note: If bidder or other interested person is a corporation, state legal name of corporation. If bidder is a co-partnership, state true *name of firm.*

Type of Business *

Corporation - list Officers

Business Owners and Officers Names *

Jim Todd - President
Therese Todd - Secretary

Note: If bidder or other interested person is:

- *a corporation, list names of the president, secretary, treasurer and manager thereof*
- *a partnership, list names of all individual co-partners composing firm.*
- *an individual, state first and last name in full.*

Names of Owners and Key Employees *

Jim Todd - President
Therese Todd - Secretary

Note: List majority owners of your firm. If multiple owners, list all. Also include anyone, including key employees, who are actively promoting the contract. (SB1439)

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

Class *

A,B,C21,C31,C36,D6

Contractor License No. *	**Expires ***
788798	5/31/26

DIR Registration Number *

1000002649

Business Address *

1701 N CLANCY CT VISALIA CA

Zip Code *

93291

Mailing Address *

PO BOX 6820 VISALIA CA

Zip Code *

93290

Business Phone *

(559) 651-5820

Fax Number

(559) 651-5830

E-mail Address *

assistant@jt2inc.com

Signature of Bidder *

JIM TODD

NOTE: If bidder is a corporation, the legal name of the corporation shall be set forth above together with the 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, bidder signature shall be placed above. If signature is by an agent, other than an officer of a corporation or a 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.

Non-Collusion Declaration - Proposal 5

State of California Department of Parks and Recreation Project Number: RG-10-001

To the County of Fresno:

NON-COLLUSION DECLARATION

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID*

The undersigned declares:

I am the (Choose one of the following options): *

Owner

If Corporate Officer please list Title:

PRESIDENT

of (Business Name): *

JT2 INC DBA TODD COMPANIES

the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or refrain from bidding. 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. All statements contained in the bid are true. 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, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, and has not paid, and will not pay, any person or entity for that purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

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: *

4/03/25

at City, State: *

VISALIA, CA

Signature: *

JIM TODD

(See Title 23 United States Code Section 112; Calif Public Contract Code Section 7106)

*NOTE: Completing, signing, and returning the Non-Collusion Declaration is a required part of the Proposal. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Public Contract Code - Proposal 6-7

Public Contract Code Section 10285.1 Statement - Proposal 6

In conformance with Public Contract Code Section 10285.1 (Chapter 376, Stats. 1985), the bidder hereby declares under penalty of perjury under the laws of the State of California that the bidder

Choose an option: *

Has not been convicted

within the preceding three years of any offenses referred to in that section, including any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of any state or Federal antitrust law in connection with the bidding upon, award of, or performance of, any public works contract, as defined in Public Contract Code Section 1101, with any public entity, as defined in Public Contract Code Section 1100, including the Regents of the University of California or the Trustees of the California State University. The term "bidder" is understood to include any partner, member, officer, director, responsible managing officer, or responsible managing employee thereof, as referred to in Section 10285.1.

The above Statement is part of the Bid. Signing this Bid on the signature portion thereof shall also constitute signature of this Statement. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Public Contract Code Section 10162 Questionnaire - Proposal 7

In conformance 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 a 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?

Choose an option: *

No

If the answer is No, please type N/A. If the answer is Yes, explain the circumstances in the following space. *

N/A

Public Contract Code Section 10232 Statement - Proposal 7

In conformance with Public Contract Code Section 10232, the Contractor hereby states under penalty of perjury, that no more than

one final unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two-years period because of the Contractor's failure to comply with an order of the National Labor Relations Board.

Note: The above Statement and Questionnaire are part of the Bid. Signing this Bid on the signature portion thereof shall also constitute signature of this Statement and Questionnaire. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Subcontractors - Proposal 8(a)

The following named subcontractor(s) will perform with labor, or otherwise render services to the general contractor in or about the construction of the work or improvement in an amount in excess of one-half of one percent of the total bid presented herewith. Each listed subcontractor's name, location of business and description of work, and both their contractor's license number and public works contractor registration number, issued pursuant to Section 1725.5 of the Labor Code, are REQUIRED, by Section 4104 of the California Public Contract Code, to be submitted prior to bid opening. (The "location of business" must specify the city in which the subcontractor's business is located, and the state if other than California.) All other requested information shall be submitted, either with the bid or within 24 hours after bid opening.

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

FAILURE TO LIST SUBCONTRACTORS AS DIRECTED MAY RENDER THE BID NON-RESPONSIVE, OR MAY RESULT IN ASSESSMENT OF A PENALTY AGAINST THE BIDDER IN ACCORDANCE WITH SECTION 4110 OF THE CALIFORNIA PUBLIC CONTRACT CODE.

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields.

Subcontractor: *

SynLawn

Business Address *

247 N Minnewawa Ave Clovis CA 93612

Class

C61

License No. *

910747

DIR Registration No. *

1000028804

Item No. or Description of Work *

Artificial Turf

Dollar Amount: **OR** **Percentage of Total Bid:**

1%

Email Address:

melissa.mcquown@synlawn.com

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields. 1

Subcontractor: *

T&T Pavement Markings

Business Address *

3276 W Sussex Way Fresno CA 93722

Class

C32

License No. *

687921

DIR Registration No. *

1000046338

Item No. or Description of Work *

Signage and Striping

Dollar Amount: **OR** **Percentage of Total Bid:**

1%

Email Address:

tandtpavemark@gmail.com

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields. 2

Subcontractor: *

Talley Oil, Inc

Business Address *

12483 Road 29 Madera Ca 93638

Class

A

License No. *

822368

DIR Registration No. *

1000009187

Item No. or Description of Work *

Chip Seal

Dollar Amount: **OR** **Percentage of Total Bid:**

4%

Email Address:

gbobian@talleyoil.com

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields. 3

Subcontractor: *

Heritage Bomanite

Business Address *

5651 E Fountain Way Fresno CA 93727

Class

C8, C61, B, C33

License No. *

832278

DIR Registration No. *

1000006911

Item No. or Description of Work *

Decorative Crosswalk

Dollar Amount: **OR** **Percentage of Total Bid:**

1%

Email Address:

joe@heritagebomanite.com

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields. 4

Subcontractor: *

CXT

Business Address *

PO Box 676208 Dallas TX 75267

Class

B

License No. *

965144

DIR Registration No. *

1000005856

Item No. or Description of Work *

Restroom Building

Dollar Amount: **OR** **Percentage of Total Bid:**

9%

Email Address:

MAlvarado@lbfoster.com

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields. 5

Subcontractor: *

Creative Builders

Business Address *

PO Box 1568 Shafter CA 93263

Class

A

License No. *

808069

DIR Registration No. *

1000007710

Item No. or Description of Work *

Playground Installation

Dollar Amount: **OR** **Percentage of Total Bid:**

2%

Email Address:

creativebuilders@whobuilt.biz

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields. 6

Subcontractor: *

Harmonson Construction

Business Address *

801 Purvis Ave Clovis CA 93612

Class

B, C7, C10

License No. *

1057285

DIR Registration No. *

1000455319

Item No. or Description of Work *

Picnic Shelter Installation

Dollar Amount: **OR** **Percentage of Total Bid:**

2%

Email Address:

chris@harmonsonconstruction.com

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields. 7

Subcontractor: *

Harmonson Construction

Business Address *

801 Purvis Ave Clovis CA 93612

Class

B, C7, C10

License No. *

1057285

DIR Registration No. *

1000455319

Item No. or Description of Work *

Site Furniture Installation

Dollar Amount: **OR** **Percentage of Total Bid:**

2%

Email Address:

chris@harmonsonconstruction.com

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields. 8

Subcontractor: *

Joyner Construction Staking

Business Address *

1034 Robin Ave Hanford CA 93230

Class

N/A

License No. *

PLS 8318

DIR Registration No. *

1001132842

Item No. or Description of Work *

Survey

Dollar Amount: **OR** **Percentage of Total Bid:**

1%

Email Address:

jcsbid@gmail.com

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields. 9

Subcontractor: *

Sunset Landscapes Inc

Business Address *

2614 N Armstrong Ave Fresno CA 93727

Class

C27

License No. *

454597

DIR Registration No. *

1000004630

Item No. or Description of Work *

Landscaping

Dollar Amount: **OR** **Percentage of Total Bid:**

6%

Email Address:

office@sunsetlandscapesinc.com

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields. 10

Subcontractor: *

Pac West Construction Company

Business Address *

PO Box 736 Chowchilla CA 93610

Class

A, C10, C7

License No. *

1047006

DIR Registration No. *

1000385662

Item No. or Description of Work *

Electrical

Dollar Amount: **OR** **Percentage of Total Bid:**

8%

Email Address:

herzog@pac-westconstruction.com

Subcontractors - Proposal 8(b)

Optional: Vendor is not required to complete.

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields.

Subcontractor: *

No bid

Business Address *

No bid

Class

No bid

License No. *

No bid

DIR Registration No. *

No bid

Item No. or Description of Work *

No bid

Dollar Amount:	**OR**	**Percentage of Total Bid:**
No bid		No bid

Email Address:

No bid

Subcontractors - Proposal 8(c)

Optional: Vendor is not required to complete.

Subcontractor: To add more subcontractor listings, click the "+" to add additional fields.

Subcontractor: *

No bid

Business Address *

No bid

Class

No bid

License No. *

No bid

DIR Registration No. *

No bid

Item No. or Description of Work *

No bid

Dollar Amount:	**OR**	**Percentage of Total Bid:**
No bid		No bid

Email Address:

No bid

California Code of Regulations: General Requirements for In-Use Off-Road Diesel-Fueled Fleets - Proposal 9

In conformance with Title 13 § 2449(i), bidders will be required to attach copies of valid Certificates of Reported Compliance for the fleet selected for the contract and their listed subcontractors.

Before May 15th of each year, the prime contractor must collect a new valid Certificate of Reported Compliance for the current compliance year, as defined in section 2449(n), from all fleets that have an ongoing contract with the prime contractor as of March 1 of that year. Prime contractors must not write contracts to evade this requirement. Annual renewals must be provided to the Resident Engineer at least one week prior to the expiration date of the current certificate.

https://ww2.arb.ca.gov/resources/fact-sheets/fact-sheet-contracting-requirements

Choose all that apply:

☑ **Bidder's Certificate of Reported Compliance has been attached to the bid.**

☐ **Bidder does not have a fleet subject to this regulation as outlined in Section 2449(i)(1)-(4).**

☐ **Listed subcontractors' Certificate of Reported Compliance have been attached.**

☐ **The following subcontractors do not have a fleet subject to this regulation as outlined in Section 2449(i)(1)-(4):**

Subcontractors:

☑ **Additional information regarding subcontractor fleets and/or certificates will be submitted within five (5) calendar days of the bid opening.**

FAILURE TO PROVIDE THE CERTIFICATES OF REPORTED COMPLIANCE AS DIRECTED MAY RENDER THE BID NON-RESPONSIVE.

Proposal 10 - 18

NOT USED

Guaranty - Proposal 19

Optional: Vendor is not required to complete.

(This guaranty shall be executed by the successful bidder in accordance with instructions in the special provisions. The bidder may execute the guaranty on this page at the time of submitting their bid.)

G U A R A N T Y

To the Owner: County of Fresno

CONTRACT NUMBER 24-24-PR

The undersigned guarantees the construction and installation of the following work included in this project:

ALL WORK

Should any of the materials or equipment prove defective or should the work as a whole prove defective, due to faulty workmanship, material furnished or methods of installation, or should the work or any part thereof fail to operate properly as originally intended and in accordance with the plans and specifications, due to any of the above causes, all within twelve (12) months after date on which this contract is accepted by the Owner, the undersigned agrees to reimburse the Owner, upon demand, for its expenses incurred in restoring said work to the condition contemplated in said project, including the cost of any such equipment or materials replaced and the cost of removing and replacing any other work necessary to make such replacement or repairs, or, upon demand by the Owner, to replace any such material and to repair said work completely without cost to the Owner so that said work will function successfully as originally contemplated.

The Owner shall have the unqualified option to make any needed replacement or repairs itself or to have such replacements or repairs done by the undersigned. In the event the Owner elects to have said work performed by the undersigned, the undersigned agrees that the repairs shall be made and such materials as are necessary shall be furnished and installed within a reasonable time after the receipt of demand from the Owner.

Date: *

4/03/25

Name (Printed): *

JIM TODD

Signature: *

JIM TODD

Title: *

PRESIDENT

Contractor: *

JT2 INC DBA TODD COMPANIES

Required Documents

Name	Omission Terms	Submitted File
Electronic Bid Bond - Scan of Bid Bond Scan of Notarized Paper Bid Bond with original due by 4pm on the 5th calendar day after the bid opening.	I have already provided a bid bond, i.e. through an electronic Surety above or to the public works office prior to the deadline.	BID BOND - Executed.pdf
CARB Certification of Reported Compliance - Bidder Valid CARB Certification of Reported Compliance - Bidder	Does not have a fleet subject to this regulation.	CARB TODD 2025.pdf
CARB Certification(s) of Reported Compliance - Subcontractors Valid CARB Certification(s) of Reported Compliance - Subcontractors	Due by 4pm on the 5th calendar day after bid opening or no listed subcontractors have a fleet subject to this regulation.	I am not enclosing this document because the omission terms have been met.
3 Required Documents		

Additional Documents (Use if needed)

Name	Omission Terms	Submitted File
Optional: Vendor is not required to complete.		
Not Required Extra Space if needed	Extra space not needed	No bid
Not Required Extra Space if needed	Extra space not needed	No bid
Not Required Extra Space if needed	Extra space not needed	No bid
3 Required Documents		

A G R E E M E N T

THIS AGREEMENT, made and entered into by and between the STATE OF CALIFORNIA, acting by and through the Department of Parks and Recreation, hereinafter called the "State" and **JT2 Inc dba Todd Companies** hereinafter called the "Contractor".

WITNESSETH: That the Contractor and the State for the consideration hereinafter named, agree as follows:

ARTICLE I. The Contractor shall furnish all labor, materials, tools, equipment, and services and perform all work necessary for the construction of the following project:

CHOINUMNI PARK IMPROVEMENTS

26501 PINE FLAT ROAD SANGER, CA 93657

STATE OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION
PROJECT NUMBER: RG-10-001

CONTRACT NUMBER: 24-24-PR

The Contractor shall perform all work in accordance with the Contract Documents as defined in the General Conditions.

ARTICLE II. The Contractor shall commence work under this contract on the date specified in the Notice to Proceed issued by the State and shall complete all work within 180 working days thereafter. The Contractor shall pay to the State the sum of $2,000 per day for each and every working day's delay in finishing the work in excess of the number of working days prescribed above.

The Contractor shall not commence work prior to the date specified in the Notice to Proceed. The Contractor shall not be entitled to any compensation for any loss or damage sustained by reason of any suspension of work, delay or interruption caused by the failure of the State to provide right of way, or by the failure of any public utility to move its facilities, or by any cause beyond the control of the Contractor, or which could not reasonably have been foreseen or prevented. The Contractor's sole remedy for any such suspension, delay or interruption shall be an extension of time to complete the work.

ARTICLE III. The State shall pay to the Contractor for the performance of the work embraced in this contract and the Contractor will accept as full payment therefor the sum of **TWO MILLION SEVEN HUNDRED AND TWO THOUSAND SIX HUNDRED AND FIFTY ONE DOLLARS AND 44/100 ($2,702,651.44)** or such sum as may be determined by the measurement and computation of the actual quantities of work performed at the unit prices stated in the Bid Schedule, and for any extra work performed as provided in the General Conditions.

ARTICLE IV. The Contractor shall comply with all applicable laws, ordinances, codes, and regulations of the federal, state, and local governments, including but not limited to the provisions of the Fair Employment and Housing Act (Government Code, Section 12990) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code, Section 12990 are set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this contract by reference and made a part hereof as if set forth in full. The Contractor shall give written notice of his obligations under this clause to labor organizations with which he has a collective bargaining or other agreement.

1 1.07, and as modified by Owner's

10 d

10 d

ARTICLE V.

Owner's

Contract Number 24-24-PR Agreement - 2

Owner's

Liability Insurance Requirements

≤ $1,000,000	1,000,000	2,000,000	2,000,000	000,000
1,000,000 ≤ $10,000,000	1,000,000	2,000,000	2,000,000	10,000,000
10,000,000 ≤ 2,000,000	2,000,000	2,000,000	000,000	1,000,000
2,000,000	2,000,000	2,000,000	000,000	2,000,000

[a]Combined single limit for bodily injury and property damage.
[b]This limit must apply separately to your work under this Contract.
[c]The umbrella or excess policy must contain a clause stating that it takes effect (drops down) in the event the primary limits are impaired or exhausted.

[illegible]

[illegible]

[illegible]

ARTICLE VIII.

ARTICLE IX:

ARTICLE X: EXECUTIVE ORDER N-6-22: subcontractor, or grantee, compliance with the economic sanctions imposed in response to Russia's

This Contract, **24-24-PR**, was awarded by the Board of Supervisors on **June 10, 2025**. It has been reviewed by the Department of Public Works and Planning and is in proper order for signature of the Chairman of the Board of Supervisors.

IN WITNESS WHEREOF, they have executed this Agreement this 31st day of July, 2025

JT2 INC DBA TODD COMPANIES
(CONTRACTOR)

JT2 INC DBA TODD COMPANIES BY:

By _____

Title PRESIDENT

COUNTY OF FRESNO
(OWNER)

By _____
Ernest "Buddy" Mendes, Chairman
of the Board of Supervisors of the
County of Fresno

ATTEST:
Bernice E. Seidel
Clerk of the Board of Supervisors
County of Fresno, State of California

By _____
Deputy

JT2INCD-01 LENDSLEY

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 7/23/2025

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER License # 0757776 HUB International Insurance Services Inc. 548 W Cromwell Avenue Suite 101 Fresno, CA 93711	CONTACT NAME: Lori Endsley PHONE (A/C, No, Ext): FAX (A/C, No): E-MAIL ADDRESS: lori.endsley@hubinternational.com
INSURED JT2 Inc. DBA: Todd Companies, DBA: Visalia Saw Cutting & Demolition, Todd Plumbing, Inc. PO Box 6820 Visalia, CA 93290	INSURER A : National Fire Insurance Company of Hartford — 20478 INSURER B : Continental Casualty Company — 20443 INSURER C : The Continental Insurance Company — 35289 INSURER D : California Contractors Network INSURER E : Homesite Insurance Company — 17221 INSURER F : Lloyd's of London — 15792

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT LOC OTHER:	X	X	C6014716567	3/1/2025	3/1/2026	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 1,000,000 $ 15,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
B	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY / SCHEDULED AUTOS HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY	X	X	6017134397	3/1/2025	3/1/2026	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
C	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED X RETENTION $ 0			CUE6017134383	3/1/2025	3/1/2026	EACH OCCURRENCE AGGREGATE	$ 4,000,000 $ 4,000,000
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y / N If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		45030243	1/1/2025	1/1/2026	X PER STATUTE / OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 5,000,000 $ 5,000,000 $ 5,000,000
E	Excess-Specific			CXP05560500	7/24/2025	3/1/2026	Choinumni Park	6,000,000
F	Prof/Pollution Liab			ANE4406998.25	3/1/2025	3/1/2026	2,000,000 aggregate	1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

RE: Choinumni Park Improvements, 26501 Pine Flat Road, Sanger, CA 93657; Project: RG-10-001; Contract#24-24-PR
County of Fresno, its officers, agents, and employees, individually and collectively are included as additional insured ad respects General Liability & Auto Liability on a Primary & Non -Contributory basis per endorsements attached.
Endorsements attached: CNA75079XX322, CNA74987XX115, CA20481013, CA04441013, CNA74702XX115, CNA72315XX0213, CNA75525XX032015

CERTIFICATE HOLDER

County of Fresno
Department of Public Works
2220 Tulare Street, Sixth Floor
Fresno, CA 93721

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

DESIGNATED INSURED FOR COVERED AUTOS LIABILITY COVERAGE

This endorsement modifies insurance provided under the following:

AUTO DEALERS COVERAGE FORM
BUSINESS AUTO COVERAGE FORM
MOTOR CARRIER COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by this endorsement.

This endorsement identifies person(s) or organization(s) who are "insureds" for Covered Autos Liability Coverage under the Who Is An Insured provision of the Coverage Form. This endorsement does not alter coverage provided in the Coverage Form.

This endorsement changes the policy effective on the inception date of the policy unless another date is indicated below.

Named Insured: JT2, Inc.

Endorsement Effective Date: 03/01/2025

SCHEDULE

Name Of Person(s) Or Organization(s):
Any person or organization that the Named Insured is obligated to provide Insurance where required by a written contract or agreement is an insured, but only with respect to legal responsibility for acts or omissions of a person for whom Liability Coverage is afforded under this policy**.**
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

Each person or organization shown in the Schedule is an "insured" for Covered Autos Liability Coverage, but only to the extent that person or organization qualifies as an "insured" under the Who Is An Insured provision contained in Paragraph **A.1.** of Section **II** – Covered Autos Liability Coverage in the Business Auto and Motor Carrier Coverage Forms and Paragraph **D.2.** of Section **I** – Covered Autos Coverages of the Auto Dealers Coverage Form.

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US (WAIVER OF SUBROGATION)

This endorsement modifies insurance provided under the following:

AUTO DEALERS COVERAGE FORM
BUSINESS AUTO COVERAGE FORM
MOTOR CARRIER COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by the endorsement.

This endorsement changes the policy effective on the inception date of the policy unless another date is indicated below.

Named Insured:JT2, Inc.

Endorsement Effective Date: 03/01/2025

SCHEDULE

Name(s) Of Person(s) Or Organization(s):
ANY PERSON OR ORGANIZATION FOR WHOM
OR WHICH YOU ARE REQUIRED BY WRITTEN
CONTRACT OR AGREEMENT TO OBTAIN THIS
WAIVER FROM US. YOU MUST AGREE TO THAT
REQUIREMENT PRIOR TO LOSS.

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The **Transfer Of Rights Of Recovery Against Others To Us** condition does not apply to the person(s) or organization(s) shown in the Schedule, but only to the extent that subrogation is waived prior to the "accident" or the "loss" under a contract with that person or organization.

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CNA

CNA PARAMOUNT

Blanket Additional Insured - Owners, Lessees or Contractors - with Products-Completed Operations Coverage Endorsement

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

It is understood and agreed as follows:

I. **WHO IS AN INSURED** is amended to include as an **insured** any person or organization whom you are required by **written contract** to add as an additional insured on this **Coverage Part**, but only with respect to liability for **bodily injury**, **property damage** or **personal and advertising injury** caused in whole or in part by your acts or omissions, or the acts or omissions of those acting on your behalf:

A. In the performance of your ongoing operations subject to such **written contract**; or

B. In the performance of **your work** subject to such **written contract**, but only with respect to **bodily injury** or **property damage** included in the **products-completed operations hazard**, and only if:

1. The **written contract** requires you to provide the additional insured such coverage; and

2. This **Coverage Part** provides such coverage; and

C. Subject always to the terms and conditions of this policy, including the limits of insurance, the insurer will not provide such additional insured with:

1. Coverage broader than what you are required to provide by the **written contract**; or

2. A higher limit of insurance than what you are required to provide by the **written contract**.

Any coverage granted by this Paragraph **I.** shall apply solely to the extent permissible by law.

II. If the written contract requires additional insured coverage under the 07-04 edition of CG2010 or CG2037, then paragraph **I.** above is deleted in its entirety and replaced by the following:

WHO IS AN INSURED is amended to include as an **insured** any person or organization whom you are required by **written contract** to add as an additional insured on this **Coverage Part**, but only with respect to liability for **bodily injury**, **property damage** or **personal and advertising injury** caused in whole or in part by your acts or omissions, or the acts or omissions of those acting on your behalf:

A. In the performance of your ongoing operations subject to such **written contract**; or

B. In the performance of **your work** subject to such **written contract**, but only with respect to **bodily injury** or **property damage** included in the **products-completed operations hazard**, and only if:

1. The **written contract** requires you to provide the additional insured such coverage; and

2. This **Coverage Part** provides such coverage.

III. But if the **written contract** requires:

A. Additional insured coverage under the 11-85 edition, 10-93 edition, or 10-01 edition of CG2010, or under the 10-01 edition of CG2037; or

B. Additional insured coverage with "arising out of" language;

then paragraph **I.** above is deleted in its entirety and replaced by the following:

WHO IS AN INSURED is amended to include as an **insured** any person or organization whom you are required by **written contract** to add as an additional insured on this **Coverage Part**, but only with respect to liability for **bodily injury**, **property damage** or **personal and advertising injury** arising out of **your work** that is subject to such **written contract**.

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IV. But if the **written contract** requires additional insured coverage to the greatest extent permissible by law, then paragraph **I.** above is deleted in its entirety and replaced by the following:

WHO IS AN INSURED is amended to include as an **insured** any person or organization whom you are required by **written contract** to add as an additional insured on this **Coverage Part**, but only with respect to liability for **bodily injury**, **property damage** or **personal and advertising injury** arising out of **your work** that is subject to such **written contract**.

V. The insurance granted by this endorsement to the additional insured does not apply to **bodily injury**, **property damage**, or **personal and advertising injury** arising out of:

A. The rendering of, or the failure to render, any professional architectural, engineering, or surveying services, including:

1. The preparing, approving, or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; and
2. Supervisory, inspection, architectural or engineering activities; or

B. Any premises or work for which the additional insured is specifically listed as an additional insured on another endorsement attached to this **Coverage Part**.

VI. Under **COMMERCIAL GENERAL LIABILITY CONDITIONS**, the Condition entitled **Other Insurance** is amended to add the following, which supersedes any provision to the contrary in this Condition or elsewhere in this **Coverage Part**:

Primary and Noncontributory Insurance

With respect to other insurance available to the additional insured under which the additional insured is a named insured, this insurance is primary to and will not seek contribution from such other insurance, provided that a **written contract** requires the insurance provided by this policy to be:

1. Primary and non-contributing with other insurance available to the additional insured; or
2. Primary and to not seek contribution from any other insurance available to the additional insured.

But except as specified above, this insurance will be excess of all other insurance available to the additional insured.

VII. Solely with respect to the insurance granted by this endorsement, the section entitled **COMMERCIAL GENERAL LIABILITY CONDITIONS** is amended as follows:

The Condition entitled **Duties in The Event of Occurrence, Offense, Claim or Suit** is amended with the addition of the following:

Any additional insured pursuant to this endorsement will as soon as practicable:

1. Give the Insurer written notice of any **claim**, or any **occurrence** or offense which may result in a **claim**;
2. Send the Insurer copies of all legal papers received, and otherwise cooperate with the Insurer in the investigation, defense, or settlement of the **claim**; and
3. Make available any other insurance, and endeavor to tender the defense and indemnity of any **claim** to any other insurer or self-insurer, whose policy or program applies to a loss that the Insurer covers under this **coverage part**. However, if the **written contract** requires this insurance to be primary and non-contributory, this paragraph **3.** does not apply to other insurance under which the additional insured is a named insured.

The Insurer has no duty to defend or indemnify an additional insured under this endorsement until the Insurer receives written notice of a **claim** from the additional insured.

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CNA PARAMOUNT

Blanket Additional Insured - Owners, Lessees or Contractors - with Products-Completed Operations Coverage Endorsement

VIII. Solely with respect to the insurance granted by this endorsement, the section entitled **DEFINITIONS** is amended to add the following definition:

Written contract means a written contract or written agreement that requires you to make a person or organization an additional insured on this **Coverage Part**, provided the contract or agreement:

A. Was executed prior to:

1. The **bodily injury** or **property damage**; or
2. The offense that caused the **personal and advertising injury**;

for which the additional insured seeks coverage; and

B. Is still in effect at the time of the **bodily injury** or **property damage occurrence** or **personal and advertising injury** offense.

All other terms and conditions of the Policy remain unchanged.

This endorsement, which forms a part of and is for attachment to the Policy issued by the designated Insurers, takes effect on the effective date of said Policy at the hour stated in said Policy, unless another effective date is shown below, and expires concurrently with said Policy.

000024 - 0071 of 0247 - NNNNNN - 02930 JOBID 3AABF005534

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CNA

CNA PARAMOUNT

Primary and Noncontributory - Other Insurance Condition Endorsement

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

It is understood and agreed that the condition entitled **Other Insurance** is amended to add the following:

Primary And Noncontributory Insurance

Notwithstanding anything to the contrary, this insurance is primary to and will not seek contribution from any other insurance available to an additional insured under this policy provided that:

a. the additional insured is a named insured under such other insurance; and

b. the **Named Insured** has agreed in writing in a contract or agreement that this insurance would be primary and would not seek contribution from any other insurance available to the additional insured.

All other terms and conditions of the Policy remain unchanged.

This endorsement, which forms a part of and is for attachment to the Policy issued by the designated insurers, takes effect on the effective date of said Policy at the hour stated in said Policy, unless another effective date is shown below, and expires concurrently with said Policy.

000024 - 0077 of 0247 - NNNNNN - 02936 JOBID 3AABF005534

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CHANGES – NOTICE OF CANCELLATION ENDORSEMENT

This endorsement modifies insurance provided under the following:

PARAMOUNT EXCESS AND UMBRELLA LIABILITY POLICY

PARAMOUNT UMBRELLA LIABILITY POLICY

PARAMOUNT EXCESS LIABILITY POLICY

It is understood and agreed as follows:

I. In the event of cancellation of this coverage during the **policy period** for a reason other than nonpayment of premium, the Insurer agrees to mail prior written notice of cancellation to:

SCHEDULE		
Name	**Address**	**Number of Days Advanced Notice**
CITY OF PORTERVILLE	291 N MAIN STREET PORTERVILLE, CA 93257 US	60
County of Fresno	Department of Public Works 2220 Tulare Street, Sixth Floor Fresno, CA 93721	60

II. If this Endorsement is attached to the PARAMOUNT EXCESS LIABILITY POLICY, then the bolded term "**policy period**" is deleted in its entirety and replaced with the term "policy period".

All other terms and conditions of the policy remain unchanged.

This endorsement, which forms a part of and is for attachment to the policy issued by the designated Insurers, takes effect on the Policy Effective Date of said policy at the hour stated in said policy, unless another effective date (the Endorsement Effective Date) is shown below, and expires concurrently with said policy unless another expiration date is shown below.

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NOTICE OF CANCELLATION OR MATERIAL CHANGE - DESIGNATED PERSON OR ORGANIZATION

It is understood and agreed that this endorsement amends the following:

AUTO DEALERS COVERAGE FORM

BUSINESS AUTO COVERAGE FORM

MOTOR CARRIER COVERAGE FORM

In the event of cancellation or material change that reduces or restricts the insurance provided by this Coverage Form, we agree to send prior notice of cancellation or material change to the person or organization scheduled below at the address scheduled below. This endorsement does not amend our obligation to notify the Named Insured of cancellation as described in the Common Policy Conditions or in another endorsement attached to this policy.

SCHEDULE
1. Number of days advance notice:
10 Days if we cancel for non-payment of premium. 30 Days if the policy is cancelled for any other reason, or if coverage is restricted or reduced by endorsement.

2. Person or Organization's Name and Address	
Name:	COUNTY OF FRESNO
Attention:	
Street Address:	2220 TULARE ST FL 6
City, State, ZIP:	FRESNO, CA 93721-2127
e-mail address:	

All other terms and conditions of the policy remain unchanged

This endorsement, which forms a part of and is for attachment to the policy issued by the designated Insurers, takes effect on the Policy Effective date of said policy at the hour stated in said policy, unless another effective date (the Endorsement Effective Date) is shown below, and expires concurrently with said policy.

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CNA

CNA PARAMOUNT

Changes - Notice of Cancellation or Material Restriction Endorsement

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
EMPLOYEE BENEFITS LIABILITY COVERAGE PART
LIQUOR LIABILITY COVERAGE PART
OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART
RAILROAD PROTECTIVE LIABILITY COVERAGE PART
STOP GAP LIABILITY COVERAGE PART
TECHNOLOGY ERRORS AND OMISSIONS LIABILITY COVERAGE PART
SPECIAL PROTECTIVE AND HIGHWAY LIABILITY POLICY – NEW YORK DEPARTMENT OF TRANSPORTATION

SCHEDULE	
Number of days notice (other than for nonpayment of premium):	030
Number of days notice for nonpayment of premium:	10
Name of person or organization to whom notice will be sent:	COUNTY OF FRESNO DEPARTMENT OF PUBLIC WORKS
Address:	2220 TULARE STREET, SIXTH FLOOR FRESNO , CA 93721

If no entry appears above, the number of days notice for nonpayment of premium will be 10 days.

It is understood and agreed that in the event of cancellation or any material restrictions in coverage during the **policy period**, the Insurer also agrees to mail prior written notice of cancellation or material restriction to the person or organization listed in the above Schedule. Such notice will be sent prior to such cancellation in the manner prescribed in the above Schedule.

All other terms and conditions of the Policy remain unchanged.

This endorsement, which forms a part of and is for attachment to the Policy issued by the designated Insurers, takes effect on the effective date of said Policy at the hour stated in said Policy, unless another effective date is shown below, and expires concurrently with said Policy.

4002000676014716567 3941

Copyright CNA All Rights Reserved.

Executed in Duplicate

PAYMENT BOND - PUBLIC WORK SECTIONS 3247 - 3252, CIVIL CODE (CALIFORNIA)

Fidelity and Deposit Company of Maryland **SURETY COMPANY**

Bond No. 9464721
Premium: Included in Performance Bond

KNOW ALL MEN BY THESE PRESENTS:

THAT WHEREAS, The County of Fresno has awarded to JT2 Inc. dba Todd Companies.

as Contractor, a contract for the work described as follows: Choinumni Park Improvements, State of California Department of Parks and Recreation, Project Number: RG-10-001, Contract Number: 24-24-PR.

AND WHEREAS, Said Contractor is required to furnish a bond in connection with said contract, to secure the payment of claims of laborers, mechanics, materialmen, and other persons as provided by law.

NOW, THEREFORE, We the undersigned Contractor and Surety are held and firmly bound unto the **County of Fresno** in the amount required by law, the sum of $2,702,651.44, for which payment well and truly to be made we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH,

That if said Contractors shall fail to pay (1) Any of the persons named in Civil Code Section 3181, (2) amounts due under the Unemployment Insurance Code for work or labor performed in connection with said contract by any such claimant, or (3) any amounts required to be deducted, withheld and paid over to the Employment Development Department and to the Franchise Tax Board from wages of the employees of Contractor and his sub-contractors with respect to such work and labor, pursuant to Section 13020 of the Unemployment Insurance Code, then the Surety or Sureties herein will pay for the same in an aggregate amount not exceeding the sum specified in this bond, and also in case suit is brought upon the bond, a reasonable attorney's fee, to be fixed by the court, otherwise the above obligation shall be void.

This bond shall inure to the benefit of any of the persons named in Civil Code Section 3181 so as to give a right of action to such persons or their assigns in any suit brought upon this bond.

This bond is executed and filed to comply with the provisions of the act of Legislature of the State of California as designated in Civil Code, Sections 3247 - 3252 inclusive, and all amendments thereto.

IN WITNESS WHEREOF, We have hereunto set our hands and seals on this 20th day of June, 2025.

JT2 Inc dba Todd Companies by:

Jim Todd, President

Contractor

Fidelity and Deposit Company of Maryland
SURETY COMPANY

By Lori L. Endsley

Lori L. Endsley, Attorney-in-Fact

S-2061-B (07-97)

ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Illinois, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Illinois (herein collectively called the "Companies"), by Robert D. Murray, Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint Jennifer WHEELER, Ronald D. OSBORN, Lori L. ENDSLEY, Verity RACHT, Carol BURNS **of Fresno, California,** its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings,** and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said **ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND,** this 2nd day of August, A.D. 2024.

ATTEST:
ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND

By: Thomas O. McClennan
Vice President

By: Dawn E. Brown
Secretary

State of Maryland
County of Baltimore

On this 2nd day of August, A.D. 2024, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **Thomas O. McClellan, Vice President and Dawn E. Brown, Secretary** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposeth and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

Genevieve M. Maison

GENEVIEVE M. MAISON
NOTARY PUBLIC
BALTIMORE COUNTY, MD
My Commission Expires JANUARY 27, 2025

Authenticity of this bond can be confirmed at bondvalidator.zurichna.com or 410-559-8790

CALIFORNIA ACKNOWLEDGMENT CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Fresno }

On June 20, 2025 *Date* before me, Veronica Perez, Notary Public *Here Insert Name and Title of the Officer*,

personally appeared Lori L. Endsley *Name(s) of Signer(s)*

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

VERONICA PEREZ
Notary Public - California
Fresno County
Commission # 2406257
My Comm. Expires May 29, 2026

Place Notary Seal and/or Stamp Above

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____
Signature of Notary Public

OPTIONAL

Completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: Payment Bond - Public Work

Document Date: June 20, 2025 Number of Pages: 2

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: Lori L. Endsley	Signer's Name: _____
☐ Corporate Officer – Title(s): _____	☐ Corporate Officer – Title(s): _____
☐ Partner – ☐ Limited ☐ General	☐ Partner – ☐ Limited ☐ General
☐ Individual ☑ Attorney in Fact	☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator	☐ Trustee ☐ Guardian or Conservator
☐ Other: _____	☐ Other: _____
Signer is Representing: _____	Signer is Representing: _____

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Executed in Duplicate

Bond No. 9464721
Premium: $21,348.00

Document A312™ – 2010

Conforms with The American Institute of Architects AIA Document 312

Performance Bond

CONTRACTOR:
(Name, legal status and address)
JT2 Inc. dba Todd Companies
P O Box 6820
Visalia, CA. 93290

SURETY:
(Name, legal status and principal place of business)
Fidelity and Deposit Company of Maryland
1299 Zurich Way
Schaumburg, IL 60196

Mailing Address for Notices
Zurich Surety Claims
1299 Zurich Way
Schaumburg, IL 60196

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

OWNER:
(Name, legal status and address)
County of Fresno
2220 Tulare Street, Sixth Floor
Fresno, CA. 93721

CONSTRUCTION CONTRACT
Date: June 10th, 2025

Amount: $ 2,702,651.44

Description: State of California Department of Parks and Recreation, Project Number: RG-10-001, Contract Number: 24-24-PR
(Name and location)
Choinumni Park Improvements
26501 Pine Flat Road
Sanger, CA. 93657

BOND
Date: June 20th, 2025
(Not earlier than Construction Contract Date)

Amount: $ 2,702,651.44

Modifications to this Bond: [X] None [ ] See Section 16

CONTRACTOR AS PRINCIPAL
Company: JT2 Inc. dba Todd Companies *(Corporate Seal)*

Signature:

Name and Title: Jim Todd, President

SURETY
Company: Fidelity and Deposit Company of Maryland *(Corporate Seal)*

Signature: Lori L. Endsley

Name and Title: Lori L. Endsley, Attorney-in-Fact

(Any additional signatures appear on the last page of this Performance Bond.)

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:
Hub International Insurance Services Inc.
548 W. Cromwell Ave. #101
Fresno, CA. 93711

OWNER'S REPRESENTATIVE:
(Architect, Engineer or other party:)

§ 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 Section 3.

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

.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 Section 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;

.2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

.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 Section 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 Section 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 Owner's 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 Section 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:

.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

.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 Section 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 Section 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 Section 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

.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
.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 Section 5; and
.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 Section 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 period of limitation 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 to the Contractor of 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:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL		SURETY	
Company:	*(Corporate Seal)*	Company:	*(Corporate Seal)*
Signature: _____		Signature: _____	
Name and Title:		Name and Title:	
Address		Address	

ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Illinois, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Illinois (herein collectively called the "Companies"), by Robert D. Murray, Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint Jennifer WHEELER, Ronald D. OSBORN, Lori L. ENDSLEY, Verity RACHT, Carol BURNS **of Fresno, California,** its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings,** and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said **ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND**, this 2nd day of August, A.D. 2024.

ATTEST:
ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND

By: Thomas O. McClennan
Vice President

By: Dawn E. Brown
Secretary

State of Maryland
County of Baltimore

On this 2nd day of August, A.D. 2024, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **Thomas O. McClellan, Vice President and Dawn E. Brown, Secretary** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposeth and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

Genevieve M. Maison

GENEVIEVE M. MAISON
NOTARY PUBLIC
BALTIMORE COUNTY, MD
My Commission Expires JANUARY 27, 2025

Authenticity of this bond can be confirmed at bondvalidator.zurichna.com or 410-559-8790

CALIFORNIA ACKNOWLEDGMENT CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Fresno }

On June 20, 2025 *Date* before me, Veronica Perez, Notary Public *Here Insert Name and Title of the Officer*,

personally appeared Lori L. Endsley *Name(s) of Signer(s)*

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

VERONICA PEREZ
Notary Public - California
Fresno County
Commission # 2406257
My Comm. Expires May 29, 2026

Place Notary Seal and/or Stamp Above

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____
Signature of Notary Public

OPTIONAL

Completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: Performance Bond

Document Date: June 20, 2025 Number of Pages: 5

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: Lori L. Endsley	Signer's Name: _____
☐ Corporate Officer – Title(s): _____	☐ Corporate Officer – Title(s): _____
☐ Partner – ☐ Limited ☐ General	☐ Partner – ☐ Limited ☐ General
☐ Individual ☑ Attorney in Fact	☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator	☐ Trustee ☐ Guardian or Conservator
☐ Other: _____	☐ Other: _____
Signer is Representing: _____	Signer is Representing: _____

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County of Fresno

DEPARTMENT OF PUBLIC WORKS AND PLANNING
STEVEN E. WHITE, DIRECTOR

July 31, 2025

Jim Todd, President
JT2 Inc dba Todd Companies
1701 N Clancy Ct
Visalia CA 93291

Transmitted by email to: assistant@jt2inc.com

Subject: **Notice of Approval, Choinumni Park Improvements**
Contract No. 24-24-PR

Dear Jim:

The contract between your firm and the County of Fresno for the referenced project became operative on July 31, 2025. A copy of the executed contract is enclosed.

DIR Project ID **20250587977** is assigned to Contract No. **24-24-PR**

The enclosed copy of Section 41 of the Charter of the County of Fresno is for your reference and compliance. If you have any questions, contact Jennica Geddert at jgeddert@fresnocountyca.gov or (559) 353-4919.

Sincerely,

Mohammad Alimi, Ph.D., P.E.
Design Division Engineer

Jennica Geddert (Jul 31, 2025 15:30:42 PDT)

Jennica Geddert
Senior Staff Analyst

Enclosures

cc: Board of Supervisors
Auditor – Controller
Financial Services
Construction Management
Design Division – Design Services