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**** WARNING ** WARNING ** WARNING ** WARNING ****
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March 18, 2008

02-Teh-5728
02-362104

Addendum No. 3

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in TEHAMA COUNTY IN RED BLUFF AT THE RED BLUFF MAINTENANCE STATION.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on April 2, 2008. The original bid opening date was previously postponed indefinitely under Addendum No. 2 dated February 15, 2008.

This addendum is being issued to set a new bid opening date as shown herein and revise the Project Plans, the Notice to Contractors and Special Provisions, the Proposal and Contract, and provide a copy of the Information Handout.

Project Plan Sheets 2, 3, 5, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 23, 25, 26, 27, 28, 29, 30, 34, 36, 37, 38, 99, 113, 114, 179 are revised. Half-sized copies of the revised sheets are attached for substitution for the like-numbered sheets.

Project Plan Sheet 32A is added. Half-sized copies of the added sheet is attached for addition to the project plans.

In the Special Provisions, Section 5-1.17, "PROJECT INFORMATION," in the third paragraph, Item D. is added as follows:

"D. California Department of Fish and Game 1602 Agreement"

In the Special Provisions, Section 5-1.175, "RELATIONS WITH CALIFORNIA DEPARTMENT OF FISH AND GAME," is added as attached.

In the Special Provisions, Section 10-1.01, "ORDER OF WORK," the following paragraph is added after the second paragraph:

"Directional boring under Dibble Creek shall take place between May 15 and October 15 of any construction year, providing the creek is dry. "

In the Special Provisions, Section 10-1.20, "EXISTING HIGHWAY FACILITIES," subsection "REMOVE CONCRETE" is added as attached.

In the Special Provisions, Section 10-1.20, "EXISTING HIGHWAY FACILITIES," subsection "REMOVE DRAINAGE FACILITY" the first paragraph is revised as follows:

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"Existing culverts and headwalls where shown on the plans to be removed, shall be completely removed and disposed of. "

In the Special Provisions, Section 10-1.21, "CLEARING AND GRUBBING," the following paragraphs are added after the sixth paragraph:

"Existing tree stumps shall be removed in conformance with Section 20-4.025, "Roadside Clearing", and Section 15-1.02 "Preservation of Property", of the Standard Specifications.

Removed tree stumps shall be disposed of outside the highway right of way in conformance with the provisions in Section 7-1.13, "Disposal of Materials Outside the Highway Right of Way," of the Standard Specifications.

Full compensation for removing all tree stumps shall be considered as included in the contract price paid for Clearing and Grubbing and no separate payment/additional compensation will be made/allowed therefore."

In the Special Provisions, Section 10-1.35, "MISCELLANEOUS FACILITIES," is revised as follows:

"Corrugated steel pipe inlets, corrugated steel flared end sections, and precast concrete manholes shall conform to the provisions in Section 70, "Miscellaneous Facilities", of the Standard Specifications."

In the Special Provisions, Section 10-1.36, "WATER AND SEWER LINE," subsection "PIPE AND FITTINGS--", subsection "Class Description" after subheading "P4--", subheading "P7--" is added as follows:

"P7--

Cross-linked Polyethylene tube (PEX) with oxygen barrier conforming to ASTM Designation: F876/F877 and International Standard 9001. Tubing shall be flexible thermoplastic type rated for 690 kPa working pressure at 82°C. Tube shall have a 25-year warranty."

In the Special Provisions, Section 10-1.36, "WATER AND SEWER LINE," subsection "INSTALLATION OF PIPES AND FITTINGS--", subsection "Pipes and fittings", the table is revised as follows:

Designated Use	Pipe and Fitting Class
Domestic Water Main, less than 100 mm	P2, or P3
Force Main	P3
Domestic Water Main, larger than 100 mm	P4
Gravity Sewer Line (Future)	P7

In the Special Provisions, Section 10-1.375, "SEWER MANHOLE," is added as attached.

In the Special Provisions, Section 10-1.38, "SEWER LINE (BRIDGE)," is deleted.

In the Special Provisions, Section 10-4, "WATER SUPPLY SYSTEM," is deleted.

In the Special Provisions, Section 12-2.025, "WATER SUPPLY SYSTEM," is added as attached.

In the Special Provisions, Section 12-7.005, "WATER REPELLANT COATING," is added as attached.

In the Special Provisions, Section 12-7.04, "METAL ROOF," is replaced with Section 12-7.04, "METAL ROOF AND

SIDING," as attached.

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In the Proposal and Contract, the Engineer's Estimate Items 2, 6, 13, 15, 16, 25, 26, 27, 33, 36, 37, 38, 39, 43 is revised, Items 52, 53, 54, 55, 56 are added and Item 41 is deleted as attached.

To Proposal and Contract book holders:

Replace pages 3, 4, and 5 of the Engineer's Estimate in the Proposal with the attached revised pages 3, 4, and 5 of the Engineer's Estimate. The revised Engineer's Estimate is to be used in the bid.

Attached is a copy of the Information Handout Permit, State of California Department of Fish and Game Notification No. R1-08-0069.

Inquiries or questions in regard to this addendum must be communicated as a bidder inquiry and must be made as noted in the NOTICE TO CONTRACTORS section of the Notice to Contractors and Special Provisions.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the proposal.

Submit bids in the Proposal and Contract book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

This office is sending this addendum by GSO overnight mail to Proposal and Contract book holders to ensure that each receives it. A copy of this addendum and the modified wage rates are available for the contractor's use on the Internet Site:

http://www.dot.ca.gov/hq/esc/oe/weekly_ads/addendum_page.html

If you are not a Proposal and Contract book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

ORIGINAL SIGNED BY

REBECCA D. HARNAGEL, Chief
Office of Plans, Specifications & Estimates
Division of Engineering Services - Office Engineer

Attachments

5-1.175 RELATIONS WITH CALIFORNIA DEPARTMENT OF FISH AND GAME

A portion of this project is located within the jurisdiction of the California Department of Fish and Game. An agreement regarding a stream or lake has been entered into by the Department of Transportation and the Department of Fish and Game. The Contractor shall be fully informed of the requirements of this agreement as well as rules, regulations, and conditions that may govern the Contractor's operations in these areas and shall conduct the work accordingly.

Copies of the agreement are available for inspection at the office of the District Director of Transportation at 379 Colusa Highway Yuba City, Ca 95991.

It is unlawful for any person to divert, obstruct or change the natural flow of the bed, channel or bank of a stream, river or lake without first notifying the Department of Fish and Game, unless the project or activity is noticed and constructed in conformance with conditions imposed under Fish and Game Code Section 1602.

Attention is directed to Sections 7-1.01, "Laws to be Observed," 7-1.01G, "Water Pollution," and 7-1.12, "Indemnification and Insurance," of the Standard Specifications.

Modifications to the agreement between the Department of Transportation and the Department of Fish and Game which are proposed by the Contractor shall be submitted in writing to the Engineer for transmittal to the Department of Fish and Game for their consideration.

When the Contractor is notified by the Engineer that a modification to the agreement is under consideration, no work shall be performed which is inconsistent with the original agreement or proposed modification until the Departments take action on the proposed modifications. Compensation for delay will be determined in conformance with the provisions in Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

The provisions of this section shall be made a part of every subcontract executed pursuant to this contract.

Modifications to any agreement between the Department of Transportation and the Department of Fish and Game will be fully binding on the Contractor. The provisions of this section shall be made a part of every subcontract executed pursuant to this contract.

REMOVE CONCRETE

Concrete, where shown on the plans to be removed, shall be removed.

The pay quantities of concrete to be removed will be measured by the cubic meter, measured before and during removal operations.

Concrete removed shall be disposed of outside the highway right of way in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

10-1.375 SEWER MANHOLE

This work shall consist of furnishing and placing sewer manholes in accordance with the details and at the locations shown on the plans and in conformance with these special provisions and as directed by the Engineer.

The quantity of sewer manholes to be paid for will be determined by actual field count of sewer manholes installed.

The contract unit price paid for sewer manhole shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in placing the sewer manhole, complete in place as shown on the plans, including excavation, backfill, and leak testing, as specified in these special provisions, and as directed by the Engineer.

12-2.025 WATER SUPPLY SYSTEM

GENERAL.--This work shall consist of furnishing and installing an onsite facility water supply system in accordance with the details shown on the plans and these special provisions.

The water supply system shall include all equipment, accessories and appurtenances necessary for the complete installation and operation of said system.

Earthwork, foundations, supports, sheet metal, painting, mechanical, electrical, and all other work incidental to and necessary for the proper installation and operation of the water supply system shall conform to the requirements for similar work elsewhere in these special provisions.

Codes and standards.-- All wash water work shall conform to the applicable portions of the 2001 California Plumbing Code, California Code of Regulations, Title 24, Part 5.

SUBMITTALS.--Working drawings, material lists, descriptive data, and other submittals specified herein shall be submitted for approval in accordance with the provisions in Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications and these special provisions.

The material list and descriptive data shall be complete as to name of manufacturer, catalog number, size, capacity, finish, all pertinent performance ratings, and identification symbols used on the plans and in the special provisions for each unit.

The material list and descriptive data submittals shall include, but not necessarily be limited to, the following:

- Storage Tank
- Water Level Gage
- Pressure Tank Tank
- Air Volume Control System
- Sight Gage and Enclosure
- Pressure Gage
- Gage Cock
- Safety Relief Valve
- Pressure Switch
- Float Switch

Parts lists and service instructions packaged with or accompanying the equipment installed in the work and the performance characteristic curve for the pump shall be delivered to the Engineer at the jobsite.

Before completion of the project, 3 bound identified copies of the operation and maintenance instructions and parts lists for equipment furnished shall be delivered to the Engineer at the jobsite. Manuals that are inadequate or incomplete will be returned and the Contractor shall resubmit adequate and complete manuals. Manuals shall be included for the following equipment:

- Water Level Gage
- Air Volume Control System
- Pressure Switch
- Float Switch

Manufacturer's warranties and guarantees for equipment and materials installed in the work shall be delivered to the Engineer at the jobsite.

PRODUCTS

Piping.--

Water pipe shall be polyvinyl chloride (PVC) plastic pipe and fittings conforming to ASTM Designation: D 2241, Type I, Grade 1, Standard Dimension Ratio (SDR) 21, rated for 1380 kPa working pressure at 23°C, National Sanitation Foundation approved. Pipe shall have bell ends conforming to ASTM Designation: D 3139 with triple edge rubber sealing ring. For pipe sizes 50 mm diameter and smaller, plain end pipe with solvent welded fittings ASTM Designation: D 2241, Type I, Grade 1, Standard Dimension Ratio (SDR) 21, rated for 1380 kPa may be used.

All water pipe risers and above ground piping shall be schedule 40 galvanized steel pipe for the water tank.

Storage tank.--

Storage tank shall be an above ground steel bolted tank. Tank dimensions shown on the plans are nominal and may be varied a maximum of 6 inches in diameter or height provided the tank capacity shown is maintained. The tank shall include steel sloped roof deck with screened vent and lockable access hatch, flat bottom, exterior ladder, water level gage, side access manway, flanged connections for piping as shown on the plans, interior and exterior coatings, and seismic tie down anchors.

Storage tank design and construction shall conform to the requirements of AWWA D 103-87.

Tank shall be designed in accordance with loads shown on the plans.

Interior coating shall be glassed or thermoset epoxy and shall meet all requirements for use in contact with potable water.

Exterior coating shall be a dual epoxy primer undercoat, acrylic enamel finish coat, and acrylic urethane topcoat. Color shall be as shown the plans.

Pressure tank tank.--

Pressure tank shall be a horizontal, epoxy lined steel pressure vessel conforming to the ASME Code for unfired pressure vessels. The wall thickness of the tank shall be increased 1.6 mm above nominal design to account for corrosion. The tank shall have a working pressure of 860 kPa and shall be stamped accordingly. The tank shall have an 279 mm x 381 mm oval manhole at one end, lifting lugs, support saddles, and extra-heavy half couplings welded to the tank. Openings in the tank shall accommodate the piping as shown on the plans. Capacity shall be as shown on the plans.

Epoxy lining of the tank shall conform to the requirements of latest edition of AWWA Standard D102, "Painting Steel Water-Storage Tanks," Section 3.2, "Inside Paint System No. 1". Paint systems containing coal tar, trichloroethylene or tetrachloroethylene (perchloroethylene) shall not be used.

The exterior surfaces of the tank shall be prepared and painted in accordance with the requirements specified for steel and other ferrous metals under "Painting" in Section 12-9 "Finishes," of these special provisions.

Air volume control system.--

The air volume control system for the pressure tank shall be a completely self-contained unit including an oilless piston type air compressor, encapsulated solid-state controls, safety valve, pressure switch, and adjustable electrode with a weatherproof cover. The unit shall be rated to operate at tank pressures up to 760 kPa. The air compressor motor shall have thermal overload protection.

Sight gage.--

Sight gage shall be bronze, water-gage valve type, automatic, minimum 15 mm diameter glass tube sized for 900 mm centers, 1380 kPa rated, and with NPS 1/2 pipe thread connection.

Sight gage enclosure shall be fabricated of 1.90 mm galvanized steel completely enclosing the sight gage and shall contain rigid polystyrene foam plastic insulation inside. The enclosure shall have a hinged cover and latch that maintain the door in the closed position when not in use.

Pressure gage.--

Pressure gage shall be ANSI standard: B40.1, Grade A, 110 mm dial, liquid filled with cover, plain case, reset screw, and bottom inlet. Gage shall read from 0 psig to 100 psig. Each pressure gage shall be equipped with a gage cock.

Gage cock shall be NPS 1/4, brass or bronze, and rated for 1040 kPa.

Valves.--

Valves not specifically mentioned herein shall be in accordance with the requirements specified under "Pipe, Fittings and Valves" in Section 12-15, "Mechanical," of these special provisions.

Motorized ball valve.--

Motorized ball valve shall be ball type, minimum 1550 kPa, polyvinyl chloride, body ball and components, fluorocarbon rubber o-rings, polytetrafluoroethylene (PTFE) seals, true union, factory mounted flanged, true block valve. Valve shall be supplied with mounting kit for electric valve actuator. Valve shall be Hayward, Asahi, or equal.

Electric valve actuator.--

Electric valve actuator shall be NEMA 4, UL listed, with 115 VAC split-capacitor type reversible electric motor with compound gear drive and internal battery backup. Actuator shall have factory set full open/close stroke limiting switches, manual override shaft, and visual position indicator. Actuator shall be capable of 25 seconds at locked rotor without overheating. Actuator shall be rated for 1.5 times the listed opening torque of the valve. Valve actuator shall be Hayward, EVS6L2T; Valvcon, TW600L2R; or equal.

Sample valve.--

Sampling valve shall be NPS 1/8 or NPS 1/4 brass or bronze, rated at 690 kPa minimum, with lever handle and bib nose outlet without threads.

Safety relief valve.--

Safety valve shall be rated for a working pressure of 1380 kPa, set at 860 kPa and equipped with a manual test lever. The size shall be as shown on the plans.

Pressure switch.--

The pressure switch shall be a diaphragm activated, adjustable differential pressure switch with one normally open and one normally closed, ___-ampere, 120-volt AC, snap action contact in a NEMA Type 4 or 4X enclosure. The switch shall have an adjustable differential range of at least 207 kPa and shall be factory set to energize the motorized ball valve when the water pressure drops below 140 kPa and de-energize the pump when water pressure reaches 345 kPa.

Float switch.--

Float switch shall be 120-volt, ___-ampere, AC, single-pole, double throw mercury switch in inert synthetic casing. Switch shall be leakproof, shockproof, and corrosion resistant. Cable shall be 3-conductor, No. 18 AWG with polyvinyl chloride (PVC) jacket. Switch shall be installed as shown on the plans. The difference between the switch activation elevation and deactivation elevation shall not be greater than 50 mm.

Miscellaneous metals.--

Angle iron, steel supports and other miscellaneous metals required for the water supply system shall be in accordance with the requirements specified under "Miscellaneous Metal" in Section 12-5, "Metals," of these special provisions.

EXECUTION.--

STORAGE TANK.--Prior to placing the storage tank into service, the storage tank shall be disinfected in accordance with the tank manufacturer's recommendations or as specified herein if the manufacturer does not have a recommended disinfection procedure:

Prior to the initial filling of the tank, the inside wall surfaces of the tank shall be sprayed with a diluted chlorine solution that will produce a chlorine residual of 200 milligrams per liter in the water when the tank is filled. If after filling the tank with water, the chlorine residual is less than 200 milligrams per liter, additional chlorine shall be added as necessary to obtain the required 200 milligrams per liter. The chlorine solution shall be left in the tank for a minimum of 48 hours. After 48 hours, the tank shall be drained, flushed, refilled, and placed into service.

PRESSURE TANK.--The sight gage for the pressure tank shall be installed with enclosure and shall be positioned as shown on the plans.

Motorized ball valve.—Motorized ball valve shall be installed with electric valve actuator. Valve shall be set to close on power failure.

TESTING.--After the installation work has been completed, the installation shall be tested for conformance with the operating conditions specified herein. The materials and labor required for testing shall be provided by the Contractor at his expense.

Before starting or operating equipment or systems, said systems or equipment shall be flushed and cleaned as required and the equipment shall be lubricated and serviced.

At the completion of the installation of the water supply piping the lines shall be made tight and shall be tested under a hydrostatic pressure of 860 kPa. The pressure shall be maintained without fluctuation for a period of one hour or longer if required by the Engineer.

The water supply system shall then be operated and checked by the Contractor for a period of at least 3 consecutive 8 hour-days to demonstrate the satisfactory overall operation of the water supply system as a completed unit. The test shall be conducted in the presence of the Engineer. During the test period, final adjustments shall be made to the equipment and components as required to place the system in satisfactory operating condition.

Any equipment, systems, or work found deficient during the test shall be replaced or repaired and retested. The Engineer shall be notified a least 72 hours in advance of starting the retest.

12-7.04 METAL ROOF AND SIDING

PART 1.- GENERAL

SUMMARY.--

Scope.--This work shall consist of furnishing and installing manufactured metal roof and siding panels, in accordance with the details shown on the plans and these special provisions.

Metal roof and siding system shall consist of underlayment, prefinished metal roof and siding panels, fasteners, sealants, and accessories and components, not mentioned, which are required for a complete, securely fastened and weathertight installation.

SYSTEM DESCRIPTION.--

Design Requirements.--The roof and siding system shall conform to the wind design requirements for uplift or outward pressures in accordance with Chapter 16 of the CBC for the wind speed and exposure shown on the plans.

SUBMITTALS.--

Product Data.--Manufacturer's technical product data, installation instructions, and recommendations for each type of sheathing material shall be submitted for approval.

Product data shall include the manufacturer's name and a complete material description of all components of the metal sheathing system.

Samples.--Material samples shall include a 305 mm x 305 mm sample of the roofing and siding panels for each color to be installed and a sample of each anchor clip and fastening device.

Working Drawings.--Working drawings showing the layout and details of the roofing and siding system shall be submitted for approval.

Working drawings shall include the shape, size, thickness, and method of attachment for each component used in the work; the layout and spacing of fasteners; details of connections and closures; and details for expansion joints and weathertight joints.

Design calculations for the fastening system of the roof and wall panels with the substrate shown on the plans shall be submitted to verify compliance with the design requirements.

Working drawings and design calculations shall be stamped and signed by an engineer who is registered as a Civil or Structural Engineer in the State of California. The expiration date of the registration shall be shown. The Engineer's signature shall be original.

QUALITY ASSURANCE.--

Certificates of Compliance.--Certificates of compliance shall be furnished for the metal sheathing system in accordance with the requirements specified in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications.

DELIVERY, HANDLING AND STORAGE.--

Delivery and handling.--Metal panels shall be protected against damage and discoloration.

Storage.--Metal panels shall be stored above ground, with one end elevated for drainage and protected against standing water and condensation between adjacent surfaces.

PART 2.- PRODUCTS

MATERIALS.--

SHEET MATERIALS.--

Base metal.--

Base metal shall be cold formed, 0.71 mm (24-gage), galvanized sheet steel conforming to ASTM Designation: A 653/A 653M, Grade 33 [230] with G90 [Z275] coating, except where a higher strength is required for performance, extra smooth; or cold formed aluminum-zinc alloy-coated, commercial quality, sheet steel conforming to ASTM Designation: A 792/A 792M, Grade 40 [275] with G90 [Z275] coating, extra smooth.

Configuration.--

Metal roofing and siding system shall be a standing seam system with standing seams a minimum of 45 mm high and spaced not less than 305 mm nor more than 455 mm on center.

Metal siding system shall have symmetrically shaped trapezoidal ribs spaced approximately 180 mm on center. The depth of the ribs shall be approximately 38 mm.

METAL FINISHES.--

General.--Coatings shall be applied before or after forming and fabricating panels, as required for maximum coating performance capability.

Colors or color matches shall be as shown on the plans or, if not otherwise shown, shall be as selected by the Engineer from the manufacturer's standard color palette.

Fluoropolymer coating.--

Finish shall be the manufacturer's standard Kynar coating with a baked on primer (0.005 mm) and a finish coat of 0.02 mm nominal for a total dry film thickness of approximately 0.025 mm nominal.

Interior finish shall consist of a 0.004 mm epoxy primer and a backer coat.

MISCELLANEOUS METAL SHAPES.--

Flashings.--

Flashings shall be formed from the same material, gage and in the same finish as the metal roofing and siding panels.

MISCELLANEOUS MATERIALS.--

Fastener clips.--

Fastener clips shall be noncorrosive, ferrous metal fasteners as recommended by the metal panel system manufacturer to resist the design loads.

Fasteners.--

Fasteners shall be as recommended by the metal panel system manufacturer. Sheet metal screws shall not be used except to fasten trim and flashings.

Underlayment.--

Underlayment shall be as recommended by the metal panel system manufacturer, but not less than 15-pound minimum asphalt impregnated fiber glass mat roofing felt.

Sealant and sealant tape.--

Sealant and sealant tape shall be as recommended by the panel system manufacturer.

Closures.--

Closures shall be rubber, neoprene, closed cell plastic or prefinished metal.

FABRICATION.--

General.--Unless otherwise shown on the plans, or specified herein, roof panels shall be fabricated in continuous lengths for the length of the roof, from ridge or peak to eaves, except such length shall not exceed the manufacturer's maximum production length.

Unless otherwise shown on the plans, or specified herein, siding panels shall be fabricated in continuous lengths for the height of the structure, from eaves to sill, except such length shall not exceed the manufacturer's maximum production length.

Flashings shall be fabricated in the longest practical lengths.

Roofing and siding panels shall be factory formed. Field formed panels are not acceptable.

PART 3.- EXECUTION**INSTALLATION.--**

Underlayment.--The roof and siding panels shall be installed over underlayment. Underlayment shall be laid parallel to the eaves, shingle fashion with 152 mm edge laps and 305 mm end laps and shall be fastened as recommended by the metal roofing system manufacturer.

Roof and siding panels.--The roof and siding shall be installed and fastened in accordance with the details shown on the plans and the approved working drawings. Cutting and fitting shall present a neat and true appearance with exposed burrs removed. Openings through roof panels shall be cut square and shall be reinforced as recommended by the metal roofing system manufacturer.

Metal panels shall be adjusted in place and properly aligned for the detailed conditions before fastening. Panels shall not be warped, bowed or twisted. The surface finish on the panels shall not be cracked, blemished or otherwise damaged.

Fasteners shall not be driven through roof panels or batten covers.

Miscellaneous metal shapes.--Trim, fascia, flashings, caps, and other prefinished metal work shall be positioned to the correct alignment for each detailed condition. Metal work shall be securely attached to backing construction using fasteners at the spacing shown on approved working drawings. Prefinished metal to be installed over concrete, masonry or plaster shall be back-coated with asphaltic paint as recommended by the metal roofing system manufacturer.

Metal panels, trim, and other prefinished metal that are marred, punctured, incorrectly bent, or incorrectly installed will be considered damaged and shall be replaced with undamaged units.

The metal panel system shall be installed weathertight. Closures shall be tight fitting and shall be provided at the ends of panels, at the boundary of the roof, and as indicated on the approved working drawings.

CLEAN UP AND CLOSE OUT.—

Clean up.--Adjacent surfaces shall be protected during the roofing system installation and sealant work. Excess sealant shall be removed as the installation progresses.

Roof panels, molding, trim, and other prefinished metal surfaces shall be cleaned after installation as recommended by the manufacturer. Exposed cuts shall be touched-up with a matching durable primer and paint as recommended by the metal roofing system manufacturer.

Touch up.--Damaged paint surfaces shall be touched up by using an air dry touch up paint supplied by the metal roofing system manufacturer. Only a small brush shall be used for touching up. No spraying of touch up paint is to be performed.

Damaged units.--Panels and other components of the work which have been damaged or have deteriorated beyond successful repair shall be removed and replaced.

12-7.005 WATER REPELLENT COATING

PART 1 - GENERAL

SUMMARY

Scope: This work shall consist of furnishing and applying water repellent coating to concrete or masonry surfaces in accordance with the details shown on the plans and these special provisions.

The water repellent coating shall be applied to all exterior concrete or masonry surfaces and exposed aggregate surfaces as shown on the plans.

SUBMITTALS

Product Data: Manufacturer's descriptive data, application instructions and general recommendations for water repellents shall be submitted for approval.

QUALITY ASSURANCE

Codes and Standards: Water repellent coatings shall comply with all rules and regulations concerning air pollution in the State of California.

Certificates of Compliance: Certificates of Compliance shall be furnished with each shipment of water repellent coating materials in accordance with Section 6-1.07, "Certificates of Compliance," of the Standard Specifications.

PART 2 - PRODUCTS

Water Repellent Coating: Water repellent coating shall be clear, colorless, water-based sealer. Water repellent coating shall be Hydrozo Inc., Clear Double 7; Euclid Chemical Co., Architectural Seal VOX; Tamms Industries Co., Chemstop; or equal.

PART 3 - EXECUTION

Preparation: All surfaces to receive water repellent coating shall be dry and cleaned by removing contaminants that block pores of the surface. Cleaning methods shall be as recommended by the water repellent manufacturer.

Application:

The water repellent solution shall be applied in accordance with the manufacturer's printed instructions

The time period between applications of water repellent coating shall be not less than 24 hours.

Protection: Surfaces of other materials surrounding or near the surfaces to receive the water repellent coating shall be protected from overspray or spillage from the waterproofing operation. Water repellent coating applied to surfaces not intended to be waterproofed shall be removed and the surfaces restored to their original condition.

ENGINEER'S ESTIMATE**02-362104**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
1	070012	PROGRESS SCHEDULE (CRITICAL PATH METHOD)	LS	LUMP SUM	LUMP SUM	
2	070018	TIME-RELATED OVERHEAD	WDAY	300		
3	074016	CONSTRUCTION SITE MANAGEMENT	LS	LUMP SUM	LUMP SUM	
4	074019	PREPARE STORM WATER POLLUTION PREVENTION PLAN	LS	LUMP SUM	LUMP SUM	
5	074028	TEMPORARY FIBER ROLL	M	1100		
6	074029	TEMPORARY SILT FENCE	M	300		
7	074032	TEMPORARY CONCRETE WASHOUT FACILITY	EA	1		
8	074033	TEMPORARY CONSTRUCTION ENTRANCE	EA	1		
9	074034	TEMPORARY COVER	M2	17 100		
10	120090	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	LUMP SUM	
11	120100	TRAFFIC CONTROL SYSTEM	LS	LUMP SUM	LUMP SUM	
12	150605	REMOVE FENCE	M	320		
13	150805	REMOVE CULVERT	M	48		
14	160101	CLEARING AND GRUBBING	LS	LUMP SUM	LUMP SUM	
15	190101	ROADWAY EXCAVATION	M3	10 500		
16	194001	DITCH EXCAVATION	M3	1220		
17	200001	HIGHWAY PLANTING	LS	LUMP SUM	LUMP SUM	
18	200101	IMPORTED TOPSOIL	M3	160		
19	203016	EROSION CONTROL (TYPE D)	HA	2		
20	204099	PLANT ESTABLISHMENT WORK	LS	LUMP SUM	LUMP SUM	

ENGINEER'S ESTIMATE

02-362104

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
21	208000	IRRIGATION SYSTEM	LS	LUMP SUM	LUMP SUM	
22	208310	IRRIGATION SLEEVE	M	10		
23	208697	100 MM CONDUIT	M	190		
24	209503	BOOSTER PUMP SYSTEM	LS	LUMP SUM	LUMP SUM	
25	260201	CLASS 2 AGGREGATE BASE	M3	5520		
26	390102	ASPHALT CONCRETE (TYPE A)	TONN	4740		
27	394002	PLACE ASPHALT CONCRETE (MISCELLANEOUS AREA)	M2	180		
28	394048	PLACE ASPHALT CONCRETE DIKE (TYPE E)	M	650		
29 (F)	510502	MINOR CONCRETE (MINOR STRUCTURE)	M3	60		
30	560238	FURNISH SINGLE SHEET ALUMINUM SIGN (1.6 MM-UNFRAMED)	M2	0.5		
31	620913	600 MM ALTERNATIVE PIPE CULVERT	M	80		
32	620924	900 MM ALTERNATIVE PIPE CULVERT	M	130		
33	700661	900 MM CORRUGATED STEEL PIPE INLET (4.27 MM THICK)	M	5		
34	705045	600 MM STEEL FLARED END SECTION	EA	1		
35	705048	900 MM STEEL FLARED END SECTION	EA	2		
36	721009	ROCK SLOPE PROTECTION (FACING, METHOD B)	M3	50		
37	721012	ROCK SLOPE PROTECTION (BACKING NO. 3, METHOD B)	M3	260		
38	729010	ROCK SLOPE PROTECTION FABRIC	M2	1280		
39 (F)	750001	MISCELLANEOUS IRON AND STEEL	KG	1130		
40	012727	WATER LINE (BRIDGE)	M	90		

ENGINEER'S ESTIMATE

02-362104

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
41		(BLANK)				
42	012729	WATER LINE	M	1050		
43	012730	SEWER LINE	M	1680		
44	800391	CHAIN LINK FENCE (TYPE CL-1.8)	M	970		
45	802592	2.4 M CHAIN LINK GATE (TYPE CL-1.8)	EA	2		
46	802596	3.7 M CHAIN LINK GATE (TYPE CL-1.8)	EA	2		
47	840515	THERMOPLASTIC PAVEMENT MARKING	M2	6		
48	840561	100 MM THERMOPLASTIC TRAFFIC STRIPE	M	340		
49	840563	200 MM THERMOPLASTIC TRAFFIC STRIPE	M	140		
50	840666	PAINT PAVEMENT MARKING (2-COAT)	M2	41		
51	994650	BUILDING WORK	LS	LUMP SUM	LUMP SUM	
52	150821	REMOVE HEADWALL	EA	2		
53	153240	REMOVE CONCRETE	M3	100		
54	707249	1500 MM PRECAST CONCRETE MANHOLE	M	6		
55	719200	SEWER MANHOLE	EA	3		
56	719589	MINOR CONCRETE (BACKFILL)	M3	13		

TOTAL BID: _____