

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

OFFICE ENGINEER

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*Flex your power!
Be energy efficient!*

November 28, 2011

04-Nap,Sol-12-2.8/3.3,0.0/2.6

04-264144

Project ID: 0400002023

Addendum No. 2

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN NAPA AND SOLANO COUNTIES FROM 0.5 MILE WEST OF NAPA COUNTY LINE TO RED TOP ROAD.

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 Tuesday, December 13, 2011.

This addendum is being issued to revise the Project Plans, the Notice to Bidders and Special Provisions, the Bid book, and provide a copy of the Information Handout.

Project Plan Sheets 27, 28, 52, 59, 62, 64, 93, 101, 106, 110, 118, 130, 144, 145, 184, 185, 196, 197, 206, 207, 213, 342, 343, 440, 469, 470, 471, 473, 475, 476, 477, 478, 479, 480, 611 are revised. Copies of the revised sheets are attached for substitution for the like-numbered sheets.

Project Plan Sheets 54A, 85A, 85B, 85C, 85D, 85E, 346A are added. Copies of the added sheets are attached for addition to the project plans.

In the Special Provisions, Section 4, "BEGINNING OF WORK, TIME OF COMPLETION AND LIQUIDATED DAMAGES," is revised as attached.

In the Special Provisions, Section 5-1.09, "PAYMENT ADJUSTMENTS FOR PRICE INDEX FLUCTUATIONS," is deleted.

In the Special Provisions, Section 5-1.12, "SUPPLEMENTAL PROJECT INFORMATION," the first paragraph is revised as follows:

"The Department makes the following supplemental project information available:

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Supplemental Project Information

| Means | Description |
|--|--|
| Included in the Information Handout | A. Copy of U.S. Army Corps of Engineers Section 404 Permit B. Copy of CA Department of Fish and Game 1602 Streambed Alteration Agreement C. Copy of Amendment of CA of Department of Fish and Game 1602 Lake and Streambed Alteration Agreement D. Copy of Regional Water Quality Control Board CWA 401 Certification E. Foundation Report F. Geotechnical Design and Materials Investigation Report G. Site Investigation Report H. Limited Site Investigation Report I. United States Fish and Wildlife Service Biological Opinion J. Storm Water Information Handout K. Materials Sources for "Sonoma Field Stone" L. Construction Coordination Agreement between Department of Transportation and Department of Water Resources, dated March 4, 2011 M. Conceptual Storm Water Pollution Prevention Plan for clearing Work N. Revised United States Fish and Wildlife Service Biological Opinion, dated June 14, 2011 |
| Available for inspection at the District Office | A. Hydromodification Report B. Amendment to the Hydromodification Report C. Information on the description and applicability of environmental screening levels for reuse of asphalt concrete in shoulder backing D. As-built drawings for existing wire mesh system, Contract No. 04-0S224, dated 04/2005 |
| Available for inspection at the Transportation Laboratory | A. Rock Cores |
| Available at: http://www.dot.ca.gov/hq/esc/oe/weekly_ads/index.php | Cross sections |

In the Special Provisions, Section 5-1.14, "SPECIES PROTECTION," subsection "SUMMARY," the second paragraph is revised as follows:

"This project is within or near habitat for regulated species:

| |
|----------------------------|
| California Red-legged Frog |
|----------------------------|

"

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In the Special Provisions, Section 5-1.14, "SPECIES PROTECTION," subsection "PROTECTIVE RADIUS," the first paragraph is revised as follows:

"Upon discovery of a regulated species, stop construction activities within a 50-foot radius of the discovery. Immediately notify the Engineer. Do not resume activities until receiving written notification from the Engineer."

In the Special Provisions, Section 5-1.14, "SPECIES PROTECTION," subsection "PROTECTIVE MEASURES," the first paragraph is revised as follows:

"Protection Measures

Within the project limits, implement the following protection measures:

1. Plastic mono-filament erosion control matting shall not be used.
2. Only the U.S. Fish and Wildlife Service-approved biological monitor has the authority to handle California red-legged frogs encountered within the action area.
3. All food related trash items such as wrappers, cans, bottles and food scraps must be disposed of in closed containers and removed at least once every day from the entire project site.
4. Prevent entrapment of California red-legged frogs in excavated, steep-walled holes or trenches more than 1 foot deep by:
 - 4.1 At the end of each working day, cover excavations with plywood or similar materials with the edges secured by a minimum 6 inch thick mound of dirt, or
 - 4.2 Provide escape ramps constructed of earth fill or wooden planks with a maximum slope of 2:1 (H:V) that are spaced maximum 500 feet apart along the excavation with at least 1 ramp per each excavation."

In the Special Provisions, Section 5-1.165, "RELATIONS WITH DEPARTMENT OF WATER RESOURCES," is added as attached.

In the Special Provisions, Section 5-1.18, "NONHIGHWAY FACILITIES (INCLUDING UTILITIES)," the following paragraph is added before the first paragraph:

"Relocation of the following utilities, as shown on the plans to be relocated by others, either have been or will be completed before contract award:

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Utility Relocations Completed by Contract Award

| Utility | Location |
|---|--|
| PG&E Overhead 12KV Electric Poles | JC 263+10 Lt to 268+50 Rt JCR2 284+05 Lt JCR2 305+10 Lt to 311+10 Rt JC 328+50 Lt JC 387+90 Rt |
| AT&T Underground Telephone Cable | JCR2 311+05 Lt to JC 329+50 Lt JC 348+75 Lt to 359+75 Lt |
| PG&E 10" Gas Line | JCR2 286+25 Rt to 291+90 Rt JC 319+50 Rt to 321+00 Lt |
| PG&E 16" Gas Line | JCR2 286+25 Rt to 291+90 Rt JC 326+30 Lt to 326+30 Rt |
| PG&E/AT&T Overhead Joint 12KV Electric/Telephone Pole | JC 277+80 Lt to JCR2 280+60 Lt JCR2 311+05 Lt |
| DWR Fiberoptic Encasement | JC 324+75 Lt JCR2 287+10 Rt to JCR2 288+00 Rt |
| DWR Water Encasement | JCR2 287+00 Rt to JCR2 288+50 Rt JC 324+50 Rt to JC 325+50 Rt |

"

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

"The first order of work shall be to perform the initial clearing work in conformance with "Clearing and Grubbing" of these special provisions. Clear vegetation by February 15 from areas where work is planned to occur from February 15 to August 15. You may begin the initial clearing work before receiving the notice of contract approval as provided in Section 8-1.03, "Beginning of Work," of the Standard Specifications. Attention is directed to "Water Pollution Control" of these special provisions regarding the Conceptual Storm Water Pollution Prevention Plan (CSWPPP) for the initial clearing work."

In the Special Provisions, Section 10-1.01, "ORDER OF WORK," the second paragraph is revised as follows:

"Work in the vicinity of creeks or water crossings at approximate stations JC 310+00 and JC 328+00 shall be scheduled to occur between June 15 and October 15 or as identified in the PLACs. The exact limits of restricted work area at these location will be determined by the Department's Biological Monitor. Vegetation removal in stream zones is permitted outside these dates as long as soil disturbance does not occur."

In the Special Provisions, Section 10-1.02, "WATER POLLUTION CONTROL," subsection "SUMMARY," the following paragraph is added after the first paragraph:

"The Department has prepared a Conceptual Storm Water Pollution Prevention Plan (CSWPPP) for the initial clearing work described in "Order of Work" of these special provisions and will submit this CSWPPP to the Regional Water Quality Control Board (RWQCB) prior to contract award. A copy of the CSWPPP is available as described in "Supplemental Project Information" of these special provisions. You must implement and comply with this CSWPPP for the initial clearing work. After initial clearing work as described in CSWPPP is completed, the CSWPPP will no longer apply and you must comply with your approved SWPPP."

In the Special Provisions, Section 10-1.02, "WATER POLLUTION CONTROL," subsection "SUMMARY," the second paragraph is revised as follows:

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"Do not start work, except for clearing work described in "Order of Work" of these special provisions, until:

1. SWPPP is approved.
2. WDID is issued.
3. SWPPP review requirements have been fulfilled. If the RWQCB requires time for SWPPP review, allow 30 days for the RWQCB to review the SWPPP as specified under "Submittals" of these special provisions."

In the Special Provisions, Section 10-1.02, "WATER POLLUTION CONTROL," subsection "QUALITY CONTROL AND ASSURANCE," the following paragraph is added after the twelfth paragraph:

"Permit Compliance Meetings

The Contractor must hold on-site water quality permit compliance meetings to discuss permit compliance, including instructions on how to avoid violations and procedures for reporting violations. The meetings must be held at least every other week, before forecasted storm events, and when a new contractor or subcontractor arrives to begin work at site. The Contractor, subcontractors and their employees, as well as any inspectors or monitors assigned to the project, must be present at the meetings. The Contractor must maintain dated sign-in sheets for attendees at these meetings and make them available to the Engineer upon request."

In the Special Provisions, Section 10-1.03, "CONSTRUCTION SITE MANAGEMENT," subsection "SUBMITTALS," the first paragraph is revised as follows:

"At least 45 days before you start dewatering, submit a dewatering and discharge work plan under Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications and "Water Pollution Control" of these special provisions. The Engineer will submit your dewatering and discharge work plan to the Regional Water Quality Control Board 30 days prior to starting dewatering activities. The dewatering and discharge work plan must include:

1. Title sheet and table of contents
2. Description of dewatering and discharge activities detailing locations, quantity of water, equipment, and discharge point
3. Estimated schedule for dewatering and discharge start and end dates of intermittent and continuous activities
4. Discharge alternatives, such as dust control or percolation
5. Visual monitoring procedures with inspection log
6. Copy of written approval to discharge into a sanitary sewer system at least 5 business days before starting discharge activities"

In the Special Provisions, Section 10-1.03, "CONSTRUCTION SITE MANAGEMENT," subsection "DEWATERING," the following paragraph is added after the first paragraph:

"For dewatering of groundwater, use a method of water disposal other than disposal to surface waters. Do not discharge groundwater to surface waters unless you apply for coverage under the Low Threat Discharge Permit and receive notification of coverage to discharge to surface waters."

In the Special Provisions, Section 10-1.03, "CONSTRUCTION SITE MANAGEMENT," subsection "DEWATERING," the following paragraph is added after the third paragraph:

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"Pumping Systems

If pumping systems are used, pumps must be equipped with secondary containment, intake screens meeting regulatory requirements and Permits, Licenses, Agreements, and Certifications (PLACs), and free of fuel or oil leaks. Screening criteria includes the following:

1. Perforated plate: screen opening must not exceed 0.1 inches, measured in diameter
2. Woven wire: screen openings must not exceed 0.1 inches, measured diagonally
3. Screen material must provide a minimum of 27% open area
4. Approach velocity must not exceed 0.328 feet per second

Material must comply with Section 6, "Control of Materials," and Section 7-1.16, "Contractor's Responsibility for the Work and Materials," of the Standard Specifications."

In the Special Provisions, Section 10-1.20, "COOPERATION," the first paragraph is revised as follows:

"It is anticipated that work by another contractor may be in progress adjacent to or within the limits of this project during progress of the work on this contract. The following table lists contracts anticipated to be in progress during this contract.

| Contract No. | Co-Rte-PM | Location | Type of Work |
|--------------|-------------------------------------|---|-------------------------|
| 04-264134 | Napa-12-0.0/3.2 | From Route 29 to 0.1 Mile West of Solano County Line | Highway Widening |
| 04-0A5344 | Sol-12-2.5/2.8, Sol-80-12.0/12.9 | From 0.5 Mile West of Route 12/80 Separation to Route 80/680 Separation, From Route 80/12 Separation to Route 80/680 Separation | Reconstruct Interchange |

"

In the Special Provisions, Section 10-1.23, "SMALL BUSINESS UTILIZATION REPORT," is deleted.

In the Special Provisions, Section 10-1.38, "EXISTING HIGHWAY FACILITIES," subsection "ABANDON WATERLINE", is deleted.

In the Special Provisions, Section 10-1.38, "EXISTING HIGHWAY FACILITIES," subsection "REMOVE WIRE MESH SYSTEM," is deleted.

In the Special Provisions, Section 10-1.38, "EXISTING HIGHWAY FACILITIES," subsection "SALVAGE WIRE MESH SYSTEM," is added as attached.

In the Special Provisions, Section 10-1.38, "EXISTING HIGHWAY FACILITIES," subsection "RELOCATE WATER PUMP SYSTEM," is deleted.

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In the Special Provisions, Section 10-1.39, "CLEARING AND GRUBBING," the following paragraphs are added after the first paragraph:

"The initial clearing work specified under "Beginning of Work, Time of Completion, and Liquidated Damages" and "Order of Work" of these special provisions consists of clearing vegetation above the natural ground surface to prevent nesting or attempted nesting by migratory and non game birds. Initial clearing work includes topping and limbing trees and removing brush where birds could make nests, and removing the cleared vegetation from the project site.

The initial clearing work does not include grubbing work. Do not perform grubbing work until the requirements for Storm Water Pollution Prevention Plan (SWPPP) under "Water Pollution Control" of these special provisions are met. After the initial clearing work and SWPPP approval, perform the remaining clearing and grubbing work in conformance with Section 16, "Clearing and Grubbing," of the Standard Specifications.

Full compensation for the initial clearing work is included in the contract lump sum price paid for clearing and grubbing, and no additional compensation will be allowed therefor."

In the Special Provisions, Section 10-1.54, "COMPOST (INCORPORATE)," is deleted.

In the Special Provisions, Section 10-1.545, "IMPORTED BIOFILTRATION TOPSOIL," is added as attached.

In the Special Provisions, Section 10-1.74, "CRACK EXISTING ASPHALT CONCRETE PAVEMENT," is deleted.

In the Special Provisions, Section 10-1.75, "PILING," subsection "CONCRETE," the following paragraph is added after the first paragraph:

"Concrete for cast-in-place concrete piling shall be prequalified in conformance with the provisions in Section 90-9, "Compressive Strength," of the Standard Specifications."

In the Special Provisions, Section 10-1.78, "CONCRETE STRUCTURES," subsection "MEASUREMENT AND PAYMENT," the fourth paragraph is deleted.

In the Special Provisions, Section 10-1.98, "WATER SYSTEM," is deleted.

In the Special Provisions, Section 10-1.100, "GABIONS," is revised as attached.

In the Special Provisions, Section 10-1.1065, "WILDLIFE FENCE (TYPE E-FENCE)," is added as attached.

In the Bid book, in the "Bid Item List," Items 37, 90, 100, 103, 136, 141, 182 and 187 are revised, Items 238 and 239 are added and Item 237 is deleted as attached.

To Bid book holders:

Replace pages 4, 7, 8, 9, 10, 12, and 14 of the "Bid Item List" in the Bid book with the attached revised pages 4, 7, 8, 9, 10, 12, and 14 of the Bid Item List. The revised Bid Item List is to be used in the bid.

Attached is a copy of the Information Handout.

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 Bidders section of the Notice to Bidders 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 Bid book.

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Submit bids in the Bid 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 addendum and attachments are available for the Contractors' download on the Web site:

http://www.dot.ca.gov/hq/esc/oe/project_ads_addenda/04/04-264144

If you are not a Bid 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,

FDR 

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

Attachments

SECTION 4. BEGINNING OF WORK, TIME OF COMPLETION, AND LIQUIDATED DAMAGES

Begin initial clearing work immediately after contract approval as described under "Order of Work" of these special provisions.

The 1st working day is the earlier of (1) the 55th day after contract approval or (2) the day you start work other than the initial clearing work, or the measurement of controlling field dimensions, or the location of utilities.

Do not start work, except the initial clearing work, at the job site until the Engineer approves your submittal for:

1. Baseline Progress Schedule (Critical Path Method)
2. Storm Water Pollution Prevention Plan (SWPPP)
3. Notification of Dispute Resolution Advisor (DRA) or Dispute Review Board (DRB) nominee and disclosure statement as specified in Section 5-1.15, "Dispute Resolution," of the Standard Specifications
4. Soil Nail Wall Earthwork Working Drawings
5. Soldier Pile Wall Earthwork Working Drawings
6. Soil Nail Assembly Working Drawings
7. Water System Working Drawings

You may enter the job site only to perform the initial clearing work, and to measure controlling field dimensions and locating utilities. Do not start other work activities until all the submittals from the above list are approved and the following information is submitted:

1. Notice of Materials To Be Used.
2. Contingency plan for reopening closures to public traffic.
3. Written statement from the vendor that the order for electrical material has been received and accepted by the vendor. The statement must show the dates that the materials will be shipped.
4. Written statement from the vendor that the order for soldier piles, soil nail assembly, and pipe, valves, steel pipe conduit, and appurtenances for water systems has been received and accepted by the vendor. The statement must show the dates that the materials will be shipped.

You may start work, other than the initial clearing work, at the job site before the 55th day after contract approval if:

1. You obtain required approval for each submittal before the 55th day
2. The Engineer authorizes it in writing

The Department grants a time extension if a delay is beyond your control and prevents you from starting work at the job site on the 1st working day.

Complete the work, except plant establishment work, within 450 working days.

Complete the work, including plant establishment work, within 700 working days.

5-1.165 RELATIONS WITH DEPARTMENT OF WATER RESOURCES

The Department of Transportation has entered into a Construction Coordination Agreement with the Department of Water Resources regarding lateral ground movement during construction of retaining walls No. 5B, 7A, and 7B.

A copy of the agreement is available as described in "Supplemental Project Information" of these special provisions.

You must be fully informed of the requirements of the agreement that may affect your operations and conduct the work accordingly, including stopping work in an area if ordered by the Engineer.

The Engineer will notify you if there are changes to the agreement. Changes to the agreement will be considered part of the contract and you must comply with changes to the agreement. Notify the Engineer if there is a discrepancy or inconsistency between the work and the agreement, and do not perform the work until ordered by the Engineer.

If your operations are delayed by the requirements of the agreement, such delay will be considered an excusable delay under Section 8-1.09, "Delays," of the Standard Specifications.

SALVAGE WIRE MESH SYSTEM

General

This work includes salvaging existing wire mesh system.

At least 20 days before beginning salvage wire mesh system work, submit a Salvage Wire Mesh System Plan to the Engineer. The plan must describe the following:

1. Schedule for removal, salvage, and delivery
2. Methods of removal and salvage, including removal and salvage sequence
3. Details of packaging and bundling of salvaged materials

At least 5 days before beginning salvage wire mesh system work, notify the Engineer and the Department's Geotechnical Design West, Branch G, telephone (510) 286-4848.

Salvaged materials must be hauled to and stockpiled at the following location:

Department's Shellville Maintenance Station
101 Bonneau Road
Sonoma, CA 95476

At least 48 hours before hauling salvaged materials, notify the Engineer and the following contact persons to arrange delivery:

1. Maintenance Superintendent, telephone (707) 253-6930
2. Sr. Engineering Geologist, telephone (510) 286-4848

As-built drawings of the existing wire mesh system to be salvaged are available as described in "Supplemental Project Information" of these special provisions.

The following components of the existing wire mesh system must be salvaged:

1. Wire mesh drapery
2. Rope wires, cables, and tag lines
3. Miscellaneous hardware from anchors, including plates, rings, and fasteners

Do not salvage existing top anchors and slope face anchors that are embedded into the ground. Anchors removed as part of the work must 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.

Construction

Existing wire mesh system must be removed and salvaged in such a manner that the system is not damaged and is suitable for future reuse. Do not destroy, pull, deform, or cut rope wires, cables, or wire mesh drapery.

Remove the existing wire mesh systems in portions as necessary for roadway excavation or other construction operations in such a manner that existing highway or non-highway facilities will not be damaged. Furnish and install temporary anchors, ropes, cables or whatever means may be necessary to adequately secure portions of the wire mesh system not removed and to prevent rocks from within the wire mesh system zone from entering the existing highway.

Remove the wire mesh drapery from the anchors by unbolting the fasteners. Remove wire mesh drapery from rope cables and remove interior splices of the wire mesh by cutting the connectors and tie wires. Do not cut rope cables or wire mesh drapery.

Salvaged materials must be packaged and bundled before delivery as follows:

1. Wire mesh drapery: Individual segments rolled and placed on pallets
2. Rope wires, cables, and tag lines: Coiled and placed on pallets
3. Miscellaneous hardware: Boxed and placed on pallets

Payment

The contract lump sum price paid for salvage wire mesh system includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in salvaging wire mesh system, including temporary anchors, temporary ropes, temporary cables, and salvage of ropes, cables, and drapery, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Full compensation for removing and disposing of existing top anchors and slope face anchors is included in the contract prices paid per cubic yard for excavation of the types listed in the Bid Item List, and no additional compensation will be allowed therefor.

10-1.545 IMPORTED BIOFILTRATION TOPSOIL

GENERAL

Summary

This work includes furnishing, and applying biofiltration topsoil.

Submittals

Compost: Before mixing compost with sand and topsoil, submit

1. A Certificate of compliance from the compost supplier in conformance with the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications.
2. A copy of the compost producer's compost technical data sheet. The compost technical data sheet must include:
 - 2.1. Laboratory analytical test results
 - 2.2. List of product ingredients
3. A copy of the compost producers Seal of Testing Assurance certification.

Imported biofiltration topsoil: Imported biofiltration topsoil must be accompanied by a Certificate of Compliance, from the soil supplier, in conformance with the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications.

Quality Control and Assurance

Saturated hydraulic conductivity for imported biofiltration topsoil must be at least 5 inches per hour.

MATERIAL

Imported biofiltration topsoil consists of a uniform mixture of sand, compost, and topsoil. The ratio of the components of imported biofiltration topsoil by volume must consist of two parts sand; one part compost; and 0.5 part topsoil.

Sand

Sand must be free of wood, waste, coating such as clay, stone dust, carbonate, or any other deleterious material. All aggregate passing No. 200 sieve size must be non-plastic. Sand must be graded within the following limits:

| Sieve Sizes | Percentage Passing |
|-------------|--------------------|
| 3/8" | 100 |
| No. 4 | 90 - 100 |
| No. 8 | 70 - 100 |
| No. 16 | 40 - 95 |
| No. 30 | 15 - 70 |
| No. 40 | 5-55 |
| No. 100 | 0 - 15 |
| No. 200 | 0 - 5 |

Grain size analysis results of the sand component must be performed in accordance with ASTM D 422, Standard Test Method for Particle Size Analysis of Soils.

Compost

The compost producer must be fully permitted as specified under the California Integrated Waste Management Board, Local Enforcement Agencies and any other State and Local Agencies that regulate solid waste facilities. If exempt from State permitting requirements, the composting facility must certify that it follows guidelines and procedures for production of compost meeting the environmental health standards of Title 14, California Code of Regulations, Division 7, Chapter 3.1, Article 7.

The compost producer must be a participant in the United States Composting Council's Seal of Testing Assurance program.

Compost may be derived from any single or mixture of any of the following feedstock materials:

1. Green material consisting of chipped, shredded, or ground vegetation; or clean processed recycled wood products
2. Biosolids
3. Manure
4. Mixed food waste

Compost feedstock materials such that weed seeds, pathogens and deleterious materials are reduced as specified under Title 14, California Code of Regulations, Division 7, Chapter 3.1, Article 7, Section 17868.3.

Compost must not be derived from mixed municipal solid waste and must be reasonably free of visible contaminants. Compost must not contain paint, petroleum products, pesticides or any other chemical residues harmful to animal life or plant growth. Compost must not possess objectionable odors.

Metal concentrations in compost must not exceed the maximum metal concentrations listed in Title 14, California Code of Regulations, Division 7, Chapter 3.1, Section 17868.2.

Compost must comply with the following:

Physical and Chemical Requirements

| Property | Test Method | Requirement |
|------------------------|--|--|
| pH | TMECC 04.11-A Elastometric pH 1:5 Slurry Method pH Units | 6.5–8.0 |
| Soluble Salts | TMECC 04.10-A Electrical Conductivity 1:5 Slurry Method dS/m (mmhos/cm) | 0–6.0 |
| Moisture Content | TMECC 03.09-A Total Solids & Moisture at 70+/- 5 deg C % Wet Weight Basis | 30–60 |
| Organic Matter Content | TMECC 05.07-A Loss-On-Ignition Organic Matter Method (LOI) % Dry Weight Basis | 35–75 |
| Maturity | TMECC 05.05-A Germination and Vigor Seed Emergence Seedling Vigor % Relative to Positive Control | 80 or Above 80 or Above |
| Stability | TMECC 05.08-B Carbon Dioxide Evolution Rate mg CO ₂ -C/g OM per day | 8 or below |
| Particle Size | TMECC 02.02-B Sample Sieving for Aggregate Size Classification % Dry Weight Basis | Inches % Passing 3 100% 1/2 0 – 95% 1/4 0-75% Max. Length 4 inches |
| Pathogen | TMECC 07.01-B Fecal Coliform Bacteria < 1000 MPN/gram dry wt. | Pass |
| Pathogen | TMECC 07.01-B Salmonella < 3 MPN/4 grams dry wt. | Pass |
| Physical Contaminants | TMECC 02.02-C Man Made Inert Removal and Classification: Plastic, Glass and Metal % > 4mm fraction | Combined Total: < 1.0 |
| Physical Contaminants | TMECC 02.02-C Man Made Inert Removal and Classification: Sharps (Sewing needles, straight pins and hypodermic needles) % > 4mm fraction | None Detected |

NOTE: TMECC refers to "Test Methods for the Examination of Composting and Compost," published by the United States Department of Agriculture and the United States Compost Council (USCC).

Topsoil

Topsoil must be free of wood, waste or other deleterious material. The topsoil texture must be loamy. Overall dry weight percentages must be 60 to 90 percent sand, with less than 20 percent passing the No.200 sieve, less than 5 percent clay, and no gravel.

CONSTRUCTION

Comply with Section 20-3.02, "Preparation," of the Standard Specifications.

Place imported biofiltration topsoil in lifts 8 to 12 inches. Lifts are not to be compacted.

MEASUREMENT AND PAYMENT

Quantities of imported biofiltration topsoil is measured by the cubic yards.

The contract unit price paid per cubic yard for imported biofiltration topsoil includes full compensation for furnishing all labor, materials, tools, equipment, incidentals, and for doing all the work involved in imported biofiltration topsoil, including testing, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-1.100 GABIONS

Gabions shall be constructed as shown on the plans and in conformance with these special provisions.

Gabions shall consist of wire mesh, cubical-celled or mattress-styled baskets that are filled on the project site with hard, durable rock.

Where shown on the plans, place concrete backfill with the rock in the top 6 inches of the gabions.

Standard gabion sizes and the overall plan and profile dimensions of the gabion structures shall be as shown on the plans. Each standard gabion size shall be divided into 36-inch long cells by diaphragm panels. The width, height or length of the standard gabions shall not vary more than 5 percent from the dimensions specified in these special provisions or as shown on the plans.

Empty gabion baskets shall be assembled individually and joined successively. Individual gabion mesh panels (base, front, ends, back, diaphragms, and lid) and successive gabions shall be assembled so that the strength and flexibility along the joints is comparable to a single panel.

MATERIALS

All materials for the gabions and gabion assembly shall conform to the provisions in these special provisions. Each shipment of gabion baskets to the project site shall be accompanied by a Certificate of Compliance conforming to the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications.

Mesh

At the Contractor's option, either twisted mesh or welded mesh shall be used, in conformance with Table 1 and Table 2 herein. For each standard gabion size, the same mesh style shall be used for the base, front, ends, back, diaphragms, and lid panels. Individual wires of either the twisted-mesh style or the welded-mesh style shall conform to the definitions and requirements in ASTM Designation: A 641/A 641M.

Mattress-style gabion baskets that are 12 inches and 18 inches high shall be manufactured from either 11-gage welded mesh or twisted mesh. Cubical-celled gabion baskets that are 36 inches high by 36 inches wide shall be fabricated from 11-gage twisted mesh or welded mesh gages between 11-gage and 9-gage, inclusive.

Table 1

| CUBICAL-CELLED FACILITIES | |
|---------------------------|--------------|
| USA WIRE GAGE | MESH STYLE |
| 11 | Twisted Mesh |
| 11 Min to 9 Max | Welded Mesh |

Table 2

| MATTRESS-STYLE FACILITIES | |
|---------------------------|--------------|
| USA WIRE GAGE | MESH STYLE |
| 11 | Twisted Mesh |
| 11 | Welded Mesh |

GABION MESH MATERIAL PROPERTIES

| Characteristic | Test Designation | Requirement |
|--------------------------|--|-------------------------|
| Minimum tensile strength | ASTM A 370 | 60 ksi |
| Wire Size | USA Steel Wire Gage | 11 |
| Wire Diameter | ASTM A 641/A 641M | 0.120 in. |
| (Minimum) | ASTM A 641/A 641M | 0.116 in. |
| Galvanizing, Zinc | ASTM A 641/A 641M, Class 3 and ASTM A 90/A 90M | 0.80 oz/ft ² |
| Wire Size | USA Steel Wire Gage | 9 |
| Wire Diameter | ASTM A 641/A 641M | 0.148 in. |
| (Minimum) | ASTM A 641/A 641M | 0.144 in. |
| Galvanizing, Zinc | ASTM A 641/A 641M, Class 3 and ASTM A 90/A 90M | 0.85 oz/ft ² |

Twisted-mesh wires shall form a uniform hexagonal pattern and shall be formed with a nonraveling twist. The area of the hexagonal opening shall not exceed the dimensions shown on the plans. Twisted-mesh gabion panels shall be manufactured from 11 gage wires with 9 gage selva wires.

Welded-mesh wires shall form a grid pattern as shown on the plans. Welds shall be made by resistance welding. Welds and panels shall conform to the requirements in ASTM Designation: A 185, except weld shears shall be 600 pounds minimum for 11 gage wires and 800 pounds minimum for 9 gage wires. Resistance welding after coating the wire with zinc will be acceptable if there are no large splashes, flakes or flashes of zinc at the weld.

Joints

Standard tie wire and standard spiral binder shall conform to the definitions and requirements in ASTM Designation: A 641/A 641M and shall conform to the following provisions:

| Characteristic | Test Designation | Requirement |
|--------------------------|--|--------------------------------------|
| Minimum Tensile Strength | ASTM A 370 | 60 ksi |
| Tie Wire | | |
| Wire Size (Minimum) | USA Steel Wire Gage | 13.5 |
| Wire Diameter (Minimum) | ASTM A 641/A 641M | 0.086 in. |
| Zinc Coating | ASTM A 641/A 641M, Class 3 and ASTM A 90/A 90M | 0.082 in. 0.70 oz/ft ² |
| Spirals | | |
| Wire Size (Maximum) | USA Steel Wire Gage | 9 |
| Wire Diameter (Minimum) | ASTM A 641/A 641M | 0.148 in. |
| Zinc Coating | ASTM A 641/A 641M, Class 3 and ASTM A 90/A 90M | 0.144 in. 0.85 oz/ft ² |

Spiral binders shall have a 3-inch separation between continuous, successive loops.

Alternative fasteners shall have the configurations, wire diameters, and other dimensions shown on the plans. Alternative fasteners shall conform to the definitions and requirements in ASTM Designation: A 764 for “Metallic Coated Carbon Steel Wire, Coated at Size and Drawn to Size for Mechanical Springs.” Interlocking fasteners shall conform to Tensile Requirement Class I, Finish 2 and shall have a Class 3 zinc coating, Overlapping fasteners shall conform to Tensile Requirement Class II, Finish 1 and shall have a Class 3 zinc coating.

Internal Connecting Wire

Internal connecting wires shall be 13.5-gage minimum. Each wire shall conform to the minimum requirements for standard tie wire in these special provisions and shall be installed in conformance with the provisions in these special provisions and as shown on the plans. Alternatively, at the Contractor’s option, preformed stiffeners may be substituted for internal connecting wires. Preformed stiffener wire shall meet the requirements specified for standard tie wire and shall be installed in conformance with these special provisions and the manufacturer’s recommendations.

Rock Slope Protection Fabric

Rock slope protection fabric for use with gabions shall conform to the provisions for Class 8 fabric in Section 88-1.06, "Channel and Shore Protection," of the Standard Specifications and these special provisions.

Rock

Rock for filling gabions, which are greater than or equal to 18 inches in height, shall vary in size and shall conform to the following:

| Screen Size (inches) | Percentage Passing |
|-------------------------|-----------------------|
| 12 | 100 |
| 4 | 0-5 |

Rock for filling the top of gabions, where concrete backfill is placed, shall vary in size and shall conform to the following:

| Screen Size (inches) | Percentage Passing |
|-------------------------|-----------------------|
| 6 | 100 |
| 4 | 0-5 |

Rock for filling gabions, which are equal to 12 inches in height, shall vary in size and shall conform to the following:

| Screen Size (inches) | Percentage Passing |
|-------------------------|-----------------------|
| 8 | 100 |
| 4 | 0-5 |

Rock shall conform to the material provisions for rock slope protection in Section 72-2.02, "Materials," of the Standard Specifications.

The minimum unit weight of a rock-filled gabion shall be 110 pounds per cubic foot, excluding the weight of concrete backfill. Verification of the 110 pounds per cubic foot shall be performed when ordered by the Engineer. Verification shall be performed on the smallest standard gabion size to be used on the project. The rock supplied for the project shall be used for verification. Filling shall be done using the same method intended for actual construction. The weight of a rock-filled gabion shall be determined using available certified scales. The volume for calculating the unit weight shall be determined on the theoretical volume of the standard gabion which is rock-filled and weighed.

Concrete Backfill

Concrete backfill shall be slurry cement backfill conforming to the provisions in Section 19-3.062, "Slurry Cement Backfill," of the Standard Specifications, except the concrete backfill shall contain not less than 282 pounds of cement per cubic yard.

GRADING, EXCAVATION AND BACKFILL

Areas where gabions are to be placed shall be constructed to the lines and grades shown on the plans and as determined by the Engineer. Excavation or backfill for achieving the required grades shall conform to the provisions for structure excavation and backfill in Section 19, "Earthwork," of the Standard Specifications.

ROCK SLOPE PROTECTION FABRIC PLACEMENT

Rock slope protection fabric shall be placed in conformance with the provisions in Section 72-2.025, "Rock Slope Protection Fabric" of the Standard Specifications. Rock slope protection fabric shall be placed on the subgrade, backslope, and sides of excavations. If earth fill is to be placed over the gabions, rock slope protection fabric shall be placed on top of the gabions, before placing the earth fill.

Where concrete backfill is to be placed in the upper portion of the gabions, place rock slope protection fabric between the rock and the concrete backfill, before placing the concrete backfill. The rock slope protection fabric shall extend up the interior sides of the gabions to prevent the concrete backfill from escaping.

CONSTRUCTION

Gabions shall be assembled individually as empty units. Each gabion shall be manufactured with the necessary panels, properly spaced and secured, so that the panels can be rotated into position at the construction site with no additional tying of the rotation joint. The panels and diaphragms shall be rotated into position and joined along the vertical edges.

For twisted mesh, the joint shall be constructed using alternating double and single half hitches (locked loops) of 13.5-gage standard tie wire at 4-inch nominal spacing. Joints shall not be constructed with simple spiraling (looping without locking) of the standard tie wires.

When standard tie wire is used as a joint connector for welded mesh, the joint shall be constructed using alternating double and single half hitches (locked loops) in every mesh opening along the joint. When 9 gage spiral binders are used, the spiral shall be placed so that the spiral binder passes through each mesh opening along the joint. Both ends of all 9 gage spiral binders shall be crimped to secure the spiral in place.

Temporary fasteners may be used to hold panels wherever gabion-to-gabion joints will be constructed. Temporary fasteners may remain in place.

At the Contractor's option, interlocking fasteners or overlapping fasteners may be used for assembly of either the twisted-mesh or welded-mesh gabions. A fastener shall be placed in each mesh opening along the joint (a minimum of 10 fasteners per 40 inches).

ASSEMBLY OF SUCCESSIVE GABION BASKETS (GABION-TO-GABION JOINTS)

Gabion baskets shall be set in place. Individually constructed gabion baskets shall then be joined successively to the next gabion baskets with 13.5-gage tie wire or 9 gage standard spiral binder before filling the basket with rock. The 13.5-gage standard tie wire or 9 gage standard spiral binder shall secure, in one pass, all selvage or end wires of the panels of all adjacent baskets along the joint.

When forming successive gabion-to-gabion joints with alternative fasteners, there shall be one alternative fastener in each mesh opening. The alternative fastener shall contain and secure all the wires along the joint.

Gabion baskets shall be joined along the front, back, and ends, including the tops and bottoms of the adjacent gabions.

ASSEMBLY OF MULTIPLE LAYERED GABIONS

Multi-layered gabion configurations shall be stepped and staggered as shown on the plans or as designated by the Engineer.

When constructing multi-layered gabion configurations, each layer of gabions shall be joined to the underlying layer along the front, back, and ends.

ASSEMBLY OF SHEAR KEY GABIONS

Shear key gabions, or counterforts, shall be spaced as shown on the plans. Shear key gabions shall be tied to adjacent gabions in the manner specified for "Assembly of Successive Gabion Baskets (Gabion-to-Gabion Joints)" of these special provisions.

ASSEMBLY OF TRANSITIONAL GABIONS

To match the geometry of the planned gabion configuration, or to meet specific conditions, panels shall be folded, cut and fastened as shown on the plans or as directed by the Engineer.

FILLING WITH ROCK AND CONCRETE BACKFILL

Before filling each gabion basket with rock, all kinks and folds in the wire fabric shall be straightened and all successive gabions shall be properly aligned.

Rock shall be placed in the baskets to provide proper alignment, avoid bulges in the wire mesh, and provide a minimum of voids. All exposed rock surfaces shall have a smooth and neat appearance. Sharp rock edges shall not project through the wire mesh.

Internal connecting wires or preformed stiffeners shall be used to produce a flat, smooth external surface, when constructing with 18-inch or 36-inch high gabions. If the Engineer determines that there is excessive bulging or dimpling of the outside panels, the unit shall be reconstructed at the Contractor's expense.

When filling 36-inch high gabions, rock shall be placed in 3 nominal 12-inch layers to allow placement of the 13.5-gage internal connecting wires. The wires shall be fastened as shown on the plans. Alternatively, preformed stiffeners may be installed at the one-third points in conformance with the recommendations of the manufacturer, to produce a smooth external surface.

When filling 18-inch high gabions, 2 nominal 9-inch layers of rock shall be placed to allow placement of a set of internal connecting wires or preformed stiffeners. The configuration of wires shall be similar to those used on the 36-inch high gabions, except there shall be only one set of internal connecting wires instead of the 2 sets of internal connecting wires or preformed stiffeners.

The last layer of rock shall slightly overfill the gabion baskets so that the lid will rest on rock when the lid is closed.

Where concrete backfill is to be placed in the upper portion of the gabions, use the following procedure:

1. Fill gabions with rock except for the top 6 inches.
2. Place rock slope protection fabric on top of the rock and up the sides of the gabions.
3. Place last layer of rock.
4. Place concrete backfill in the last layer of rock to fill the voids between rocks, and slightly overfill the basket with concrete backfill so that the lid will rest on the concrete backfill. The gabions must be in their final position prior to placing the concrete backfill.
5. Close the lids of the gabions while the concrete backfill is still workable. Press the lid into the concrete backfill so there are no air gaps between the mesh wire, rocks, or concrete backfill. After closing the lid, place additional concrete backfill as necessary to fill any gaps that may exist. The finished surface of the top of the gabions shall have no gaps where the legs of animals could become trapped in the rocks, concrete backfill, or wire mesh.

CLOSURE OF LIDS

Lids shall be tied along the front, ends, and diaphragms in conformance with the provisions in "Assembly of Successive Gabion Baskets (Gabion-to-Gabion Joints)" of these special provisions.

MEASUREMENT

Gabions will be measured by the cubic yard as determined from the dimensions shown on the plans or the dimensions directed by the Engineer and gabions placed in excess of these dimensions will not be paid for.

PAYMENT

The contract price paid per cubic yard for gabion shall include full compensation for furnishing all labor, materials (including gabion baskets, rock and rock slope protection fabric, and concrete backfill), tools, equipment, and incidentals, and for doing all the work involved in constructing gabions, complete, in place, including excavation and backfill, and concrete backfill, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-1.1065 WILDLIFE FENCE (TYPE E-FENCE)

GENERAL

Summary

This work includes constructing wildlife fence (Type E-FENCE).
Comply with Section 80, "Fences," of the Standard Specifications.

Submittals

Submit a Certificate of Compliance under Section 6-1.07, "Certificates of Compliance," of the Standard Specifications for the type E-Fence and for the metal posts.

At least 5 days before installation, submit a copy of the manufacturer's product data sheet and installation instructions.

MATERIALS

Wildlife fence (Type E-FENCE) must be black 48 inch wide E-Fence with climber barrier, configuration EFB48L, as manufactured by ERTEC Environmental Systems, and must include all the items as specified by the manufacturer's specifications, as shown on the plans, and as specified in these special provisions.

The E-Fence includes the following:

- 1. E-Fence 48 inch wide Fabric
- 2. E-Fence Climber Barrier Brackets
- 3. E-Fence Guide Wire
- 4. E-Fence Tie

You must furnish metal posts. Metal posts must:

- 1. Be steel
- 2. Have a tee cross-sectional shape
- 3. Have an anchor plate
- 4. Weigh at least 0.85-pound per foot, and be at least 5 feet in length
- 5. Be painted a green color

The successful bidder can obtain the E-Fence from the manufacturer, ERTEC Environmental Systems, 1150 Ballena Boulevard, Suite 250, Alameda, CA 94501, telephone (510) 521-0724.

The price quoted by the manufacturer for E-Fence is as follows, not including shipping and handling and sales tax:

ERTEC E-FENCE

| Product | Product Code | Unit Price |
|---|--------------|-----------------|
| E-Fence, 48 inch width | EF48 | \$2.60 per foot |
| E-Fence Climber Barrier Brackets | EFCBB | \$0.30 each |
| E-Fence Guide Wire, 10 lb Spool 585 feet length | EFGW | \$40.95 each |
| E-Fence Tie | EFT | \$0.10 each |

The above prices will be firm for orders placed on or before December 31, 2012.

CONSTRUCTION

Install wildlife fence (Type E-FENCE) according to the fence manufacturer's written instructions.

MEASUREMENT AND PAYMENT

Wildlife fence (Type E-FENCE) is measured and paid for by the linear foot in the same manner specified for barbed wire and wire mesh fence in Section 80, "Fences," of the Standard Specifications.

BID ITEM LIST**04-264144**

| Item No. | Item Code | Item Description | Unit of Measure | Estimated Quantity | Unit Price | Item Total |
|----------|-----------|--|-----------------|--------------------|------------|------------|
| 21 | 074057 | STORM WATER ANNUAL REPORT | EA | 2 | 2,000.00 | 4,000.00 |
| 22 | 074058 | STORM WATER SAMPLING AND ANALYSIS DAY | EA | 54 | | |
| 23 | 120090 | CONSTRUCTION AREA SIGNS | LS | LUMP SUM | LUMP SUM | |
| 24 | 120100 | TRAFFIC CONTROL SYSTEM | LS | LUMP SUM | LUMP SUM | |
| 25 | 120149 | TEMPORARY PAVEMENT MARKING (PAINT) | SQFT | 730 | | |
| 26 | 120159 | TEMPORARY TRAFFIC STRIPE (PAINT) | LF | 51,700 | | |
| 27 | 120165 | CHANNELIZER (SURFACE MOUNTED) | EA | 560 | | |
| 28 | 120300 | TEMPORARY PAVEMENT MARKER | EA | 1,240 | | |
| 29 | 128650 | PORTABLE CHANGEABLE MESSAGE SIGN | LS | LUMP SUM | LUMP SUM | |
| 30 | 129000 | TEMPORARY RAILING (TYPE K) | LF | 20,400 | | |
| 31 | 129100 | TEMPORARY CRASH CUSHION MODULE | EA | 56 | | |
| 32 | 020085 | TEMPORARY IN-LINE CRASH CUSHION | EA | 26 | | |
| 33 | 141103 | REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE) | LF | 27,900 | | |
| 34 | 150227 | ABANDON PIPELINE | LF | 7,930 | | |
| 35 | 150605 | REMOVE FENCE | LF | 12,800 | | |
| 36 | 150662 | REMOVE METAL BEAM GUARD RAILING | LF | 3,760 | | |
| 37 | 020086 | SALVAGE WIRE MESH SYSTEM | LS | LUMP SUM | LUMP SUM | |
| 38 | 150711 | REMOVE PAINTED TRAFFIC STRIPE | LF | 16,600 | | |
| 39 | 150712 | REMOVE PAINTED PAVEMENT MARKING | SQFT | 520 | | |
| 40 | 150714 | REMOVE THERMOPLASTIC TRAFFIC STRIPE | LF | 22,700 | | |

BID ITEM LIST**04-264144**

| Item No. | Item Code | Item Description | Unit of Measure | Estimated Quantity | Unit Price | Item Total |
|----------|-----------|--|-----------------|--------------------|------------|------------|
| 81 | 198007 | IMPORTED MATERIAL (SHOULDER BACKING) | TON | 320 | | |
| 82 | 198009 | IMPORTED BORROW (LIGHTWEIGHT AGGREGATE) | CY | 450 | | |
| 83 | 198205 | SUBGRADE ENHANCEMENT GEOTEXTILE | SQYD | 2,110 | | |
| 84 | 200001 | HIGHWAY PLANTING | LS | LUMP SUM | LUMP SUM | |
| 85 | 020090 | IMPORTED BIOFILTRATION TOPSOIL | CY | 400 | | |
| 86 | 020091 | ROCK BLANKET (MODIFIED) | SQYD | 200 | | |
| 87 | 203002 | EROSION CONTROL (COMPOST BLANKET) | CY | 410 | | |
| 88 | 203021 | FIBER ROLLS | LF | 32,100 | | |
| 89 | 203026 | MOVE-IN/MOVE-OUT (EROSION CONTROL) | EA | 12 | | |
| 90 | 203031 | EROSION CONTROL (HYDROSEED) (SQFT) | SQFT | 655,000 | | |
| 91 | 203034 | ROLLED EROSION CONTROL PRODUCT (NETTING) | SQFT | 129,000 | | |
| 92 | 204013 | PLANT (GROUP M) | EA | 2,280 | | |
| 93 | 204017 | PLANT (GROUP W) | EA | 150 | | |
| 94 | 020092 | PLANT TUBES | EA | 21 | | |
| 95 | 204055 | WILD FLOWER SEEDING (SQYD) | SQYD | 4,000 | | |
| 96 | 204099 | PLANT ESTABLISHMENT WORK | LS | LUMP SUM | LUMP SUM | |
| 97 | 208000 | IRRIGATION SYSTEM | LS | LUMP SUM | LUMP SUM | |
| 98 | 208310 | IRRIGATION SLEEVE | LF | 390 | | |
| 99 | 250401 | CLASS 4 AGGREGATE SUBBASE | CY | 42,800 | | |
| 100 | 260301 | CLASS 3 AGGREGATE BASE | CY | 2,170 | | |

BID ITEM LIST**04-264144**

| Item No. | Item Code | Item Description | Unit of Measure | Estimated Quantity | Unit Price | Item Total |
|----------|-----------|--|-----------------|--------------------|------------|------------|
| 101 | 280000 | LEAN CONCRETE BASE | CY | 21,700 | | |
| 102 | 390095 | REPLACE ASPHALT CONCRETE SURFACING | CY | 180 | | |
| 103 | 390131 | HOT MIX ASPHALT | TON | 32,800 | | |
| 104 | 390140 | RUBBERIZED HOT MIX ASPHALT (GAP GRADED) | TON | 14,700 | | |
| 105 | 394050 | RUMBLE STRIP | STA | 300 | | |
| 106 | 394060 | DATA CORE | LS | LUMP SUM | LUMP SUM | |
| 107 | 394074 | PLACE HOT MIX ASPHALT DIKE (TYPE C) | LF | 250 | | |
| 108 | 394076 | PLACE HOT MIX ASPHALT DIKE (TYPE E) | LF | 3,290 | | |
| 109 | 394077 | PLACE HOT MIX ASPHALT DIKE (TYPE F) | LF | 790 | | |
| 110 | 394090 | PLACE HOT MIX ASPHALT (MISCELLANEOUS AREA) | SQYD | 8 | | |
| 111 | 397005 | TACK COAT | TON | 14 | | |
| 112 | 042993 | 24" DRILLED HOLE | LF | 1,395 | | |
| 113 | 042994 | STEEL SOLDIER PILE (2-MC 12X44) | LF | 1,385 | | |
| 114 | 500050 | TIEBACK ANCHOR | EA | 297 | | |
| 115 (F) | 510060 | STRUCTURAL CONCRETE, RETAINING WALL | CY | 1,375 | | |
| 116 (F) | 510072 | STRUCTURAL CONCRETE, BARRIER SLAB | CY | 730 | | |
| 117 (F) | 510090 | STRUCTURAL CONCRETE, BOX CULVERT | CY | 984 | | |
| 118 (F) | 510092 | STRUCTURAL CONCRETE, HEADWALL | CY | 274 | | |
| 119 (F) | 510502 | MINOR CONCRETE (MINOR STRUCTURE) | CY | 199 | | |
| 120 | 510526 | MINOR CONCRETE (BACKFILL) | CY | 480 | | |

BID ITEM LIST**04-264144**

| Item No. | Item Code | Item Description | Unit of Measure | Estimated Quantity | Unit Price | Item Total |
|----------|-----------|--|-----------------|--------------------|------------|------------|
| 121 | 511036 | ARCHITECTURAL SURFACE (BARRIER) | SQFT | 11,100 | | |
| 122 (F) | 042995 | ARCHITECTURAL TREATMENT (TEXTURED SHOTCRETE) | SQFT | 197,555 | | |
| 123 (F) | 042996 | ARCHITECTURAL TREATMENT (FORMED RELIEF TEXTURE) | SQFT | 11,400 | | |
| 124 (F) | 520103 | BAR REINFORCING STEEL (RETAINING WALL) | LB | 1,206,860 | | |
| 125 (F) | 520107 | BAR REINFORCING STEEL (BOX CULVERT) | LB | 15,882 | | |
| 126 (F) | 520108 | BAR REINFORCING STEEL (HEADWALL) | LB | 57,542 | | |
| 127 (F) | 530100 | SHOTCRETE | CY | 9,230 | | |
| 128 (F) | 042998 | TREAT BARRIER SLAB | SQFT | 13,000 | | |
| 129 | 042999 | FURNISH BARRIER SLAB TREATMENT MATERIAL | GAL | 150 | | |
| 130 | 560248 | FURNISH SINGLE SHEET ALUMINUM SIGN (0.063"-UNFRAMED) | SQFT | 210 | | |
| 131 (F) | 562004 | METAL (RAIL MOUNTED SIGN) | LB | 570 | | |
| 132 | 566011 | ROADSIDE SIGN - ONE POST | EA | 6 | | |
| 133 | 566012 | ROADSIDE SIGN - TWO POST | EA | 2 | | |
| 134 | 568001 | INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD) | EA | 3 | | |
| 135 | 597601 | PREPARE AND STAIN CONCRETE | SQFT | 360,500 | | |
| 136 | 620101 | 18" ALTERNATIVE PIPE CULVERT (TYPE A) | LF | 6,090 | | |
| 137 | 620102 | 18" ALTERNATIVE PIPE CULVERT (TYPE B) | LF | 79 | | |
| 138 | 620141 | 24" ALTERNATIVE PIPE CULVERT (TYPE A) | LF | 2,880 | | |
| 139 | 620142 | 24" ALTERNATIVE PIPE CULVERT (TYPE B) | LF | 270 | | |
| 140 | 620181 | 30" ALTERNATIVE PIPE CULVERT (TYPE A) | LF | 420 | | |

BID ITEM LIST**04-264144**

| Item No. | Item Code | Item Description | Unit of Measure | Estimated Quantity | Unit Price | Item Total |
|----------|-----------|---|-----------------|--------------------|------------|------------|
| 141 | 620221 | 36" ALTERNATIVE PIPE CULVERT (TYPE A) | LF | 720 | | |
| 142 | 620222 | 36" ALTERNATIVE PIPE CULVERT (TYPE B) | LF | 450 | | |
| 143 | 020093 | 48" ALTERNATIVE PIPE CULVERT (TYPE A) | LF | 25 | | |
| 144 | 680207 | 3" PLASTIC PIPE | LF | 50 | | |
| 145 | 020094 | 4" PLASTIC PIPE | LF | 52 | | |
| 146 | 681023 | 6" PLASTIC PIPE | LF | 43 | | |
| 147 | 665022 | 24" CORRUGATED STEEL PIPE (.064" THICK) | LF | 75 | | |
| 148 | 680905 | 8" PERFORATED PLASTIC PIPE UNDERDRAIN | LF | 11,200 | | |
| 149 | 020095 | 8" NON-PERFORATED PLASTIC PIPE UNDERDRAIN | LF | 140 | | |
| 150 | 700617 | DRAINAGE INLET MARKER | EA | 76 | | |
| 151 | 703239 | 36" CORRUGATED STEEL PIPE RISER (.109" THICK) | LF | 19 | | |
| 152 | 703255 | 48" CORRUGATED STEEL PIPE RISER (.109" THICK) | LF | 13 | | |
| 153 | 703530 | 12" WELDED STEEL PIPE (.105" THICK) | LF | 32 | | |
| 154 | 703551 | 18" WELDED STEEL PIPE (.134" THICK) | LF | 360 | | |
| 155 | 703575 | 24" WELDED STEEL PIPE (.250" THICK) | LF | 10 | | |
| 156 | 703595 | 30" WELDED STEEL PIPE (.188" THICK) | LF | 22 | | |
| 157 | 705307 | 12" ALTERNATIVE FLARED END SECTION | EA | 1 | | |
| 158 | 705311 | 18" ALTERNATIVE FLARED END SECTION | EA | 19 | | |
| 159 | 705315 | 24" ALTERNATIVE FLARED END SECTION | EA | 1 | | |
| 160 | 705321 | 36" ALTERNATIVE FLARED END SECTION | EA | 3 | | |

BID ITEM LIST**04-264144**

| Item No. | Item Code | Item Description | Unit of Measure | Estimated Quantity | Unit Price | Item Total |
|----------|-----------|--|-----------------|--------------------|------------|------------|
| 181 | 020116 | ROCK SLOPE PROTECTION (1/4 TON, METHOD A MODIFIED) | CY | 240 | | |
| 182 | 721008 | ROCK SLOPE PROTECTION (LIGHT, METHOD B) | CY | 340 | | |
| 183 | 020117 | ROCK SLOPE PROTECTION (BACKING NO. 3, METHOD A) | CY | 13 | | |
| 184 | 721609 | CONCRETED-ROCK SLOPE PROTECTION (FACING, METHOD B) | CY | 6 | | |
| 185 | 722020 | GABION | CY | 600 | | |
| 186 | 727901 | MINOR CONCRETE (DITCH LINING) | CY | 95 | | |
| 187 | 729010 | ROCK SLOPE PROTECTION FABRIC | SQYD | 1,140 | | |
| 188 | 731502 | MINOR CONCRETE (MISCELLANEOUS CONSTRUCTION) | CY | 67 | | |
| 189 | 020118 | MINOR CONCRETE (DRAINAGE RELEASE) | CY | 22 | | |
| 190 (F) | 731517 | MINOR CONCRETE (GUTTER) | LF | 8,796 | | |
| 191 (F) | 750001 | MISCELLANEOUS IRON AND STEEL | LB | 31,946 | | |
| 192 | 020119 | WATER QUALITY WEIR | EA | 5 | | |
| 193 | 800054 | FENCE (TYPE WM, MODIFIED) | LF | 1,340 | | |
| 194 | 800060 | FENCE (TYPE WM AND BW) | LF | 6,210 | | |
| 195 | 020120 | FENCE (TYPE WM AND BW, MODIFIED) | LF | 1,020 | | |
| 196 | 020121 | FENCE (TYPE BW, MODIFIED) | LF | 1,440 | | |
| 197 (F) | 800320 | CHAIN LINK FENCE (TYPE CL-4) | LF | 32 | | |
| 198 | 020122 | VINYL FENCE | LF | 2,540 | | |
| 199 | 801230 | 16' WIRE MESH GATE | EA | 1 | | |
| 200 | 801364 | 16' METAL GATE | EA | 4 | | |

BID ITEM LIST**04-264144**

| Item No. | Item Code | Item Description | Unit of Measure | Estimated Quantity | Unit Price | Item Total |
|----------|-----------|---|-----------------|--------------------|------------|------------|
| 221 (F) | 839725 | CONCRETE BARRIER (TYPE 736) | LF | 2,163 | | |
| 222 | 840504 | 4" THERMOPLASTIC TRAFFIC STRIPE | LF | 46,600 | | |
| 223 | 840505 | 6" THERMOPLASTIC TRAFFIC STRIPE | LF | 30,700 | | |
| 224 | 840506 | 8" THERMOPLASTIC TRAFFIC STRIPE | LF | 5,450 | | |
| 225 | 840515 | THERMOPLASTIC PAVEMENT MARKING | SQFT | 2,250 | | |
| 226 | 840560 | THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE) | LF | 28,700 | | |
| 227 | 850101 | PAVEMENT MARKER (NON-REFLECTIVE) | EA | 2,380 | | |
| 228 | 850111 | PAVEMENT MARKER (RETROREFLECTIVE) | EA | 2,080 | | |
| 229 | 860090 | MAINTAINING EXISTING TRAFFIC MANAGEMENT SYSTEM ELEMENTS DURING CONSTRUCTION | LS | LUMP SUM | LUMP SUM | |
| 230 | 020125 | TRAFFIC OPERATIONS SYSTEM | LS | LUMP SUM | LUMP SUM | |
| 231 | 860403 | HIGHWAY LIGHTING | LS | LUMP SUM | LUMP SUM | |
| 232 | 020126 | INTEGRATED CAMERA UNIT | EA | 3 | | |
| 233 | 020127 | CAMERA CONTROL UNIT | EA | 3 | | |
| 234 | 020128 | VIDEO ENCODER UNIT | EA | 3 | | |
| 235 | 020129 | EXTINGUISHABLE MESSAGE SIGN PANEL | EA | 2 | | |
| 236 | 020130 | GENERAL PACKET RADIO SYSTEM WIRELESS MODEM ASSEMBLY | EA | 7 | | |
| 237 | BLANK | | | | | |
| 238 | 022172 | WILDLIFE FENCE (TYPE E-FENCE | LF | 6,150 | | |
| 239 | 999990 | MOBILIZATION | LS | LUMP SUM | LUMP SUM | |

TOTAL BID:

\$ _____