

**DEPARTMENT OF TRANSPORTATION**

ESC/OE MS #43  
1727 30TH Street, 2ND Floor  
Sacramento, CA 95816



February 13, 2001

09-Mno-108-4.8  
09-279704  
ACBRSTP-P108(038)E

Addendum No. 2

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in MONO COUNTY ABOUT 19 km WEST OF SONORA JUNCTION AT SODA CREEK BRIDGE.

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 February 21, 2001.

This addendum is being issued to revise the Notice to Contractors and Special Provisions.

In the Special Provisions, Section 5-1.13, "RELATIONS WITH CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD," is revised as attached.

In the Special Provisions, Section 10-1.19, "EARTHWORK," is revised as attached.

In the Special Provisions, Section 10-1.20, "EROSION CONTROL (BLANKET)," sub-sections, "ROADSIDE CLEARING" and "PESTICIDES" are deleted.

To Proposal and Contract book holders:

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 confirmed facsimile to all book holders to ensure that each receives it.

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 Office Engineer

Attachments

### **5-1.13 RELATIONS WITH CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD**

The location of the Sardine Creek Bridge Replacement is within an area controlled by the Regional Water Quality Control Board. Regional Water Quality Control Waste Discharge Permit Number 6A260008009 has been issued covering work to be performed under this contract. The Contractor shall be fully informed of rules, regulations, and conditions that may govern the Contractor's operations in the areas and shall conduct the work accordingly.

Copies of the order may be obtained at the office of the District Director of Transportation at 500 South Main Street, Bishop, CA.

Attention is directed to Section 7-1.11, "Preservation of Property," and Section 7-1.12, "Indemnification and Insurance," of the Standard Specifications.

Changes in the above listed conditions proposed by the Contractor shall be submitted to the Engineer for transmittal to the Regional Water Quality Control Board for their approval. Changes shall not be implemented until approved in writing by the Regional Water Quality Control Board.

Attention is directed to Section 8-1.06, "Time of Completion," of the Standard Specifications. Days when the Contractor's operations are restricted by the requirements of this section shall not be considered to be nonworking days whether or not the controlling operation is delayed.

## 10-1.19 EARTHWORK

Earthwork shall conform to the provisions in Section 19, "Earthwork," of the Standard Specifications and these special provisions.

Where a portion of the existing surfacing is to be removed, the outline of the area to be removed shall be cut on a neat line with a power-driven saw to a minimum depth of 50 mm before removing the surfacing. Full compensation for cutting the existing surfacing shall be considered as included in the contract price paid per cubic meter for roadway excavation and no additional compensation will be allowed therefor.

The portion of imported borrow placed within 1.5 m of the finished grade shall have a Resistance (R-Value) of not less than 40.

Bituminous material shall not be placed within 0.6 meters of a finished surface.

Imported borrow will be measured and paid for by the cubic meter and the quantity to be paid for will be computed in the following manner:

- A. The total quantity of embankment will be computed in conformance with the provisions for roadway excavation in Section 19-2.08, "Measurement," of the Standard Specifications, on the basis of the planned or authorized cross section for embankments as shown on the plans and the measured ground surface.
- B. The Contractor, at the Contractor's option, may compact the ground surface on which embankment is to be constructed before placing any embankment thereon. If the compaction results in an average subsidence exceeding 75 mm, the ground surface will be measured after completion of the compaction. The Engineer shall be allowed the time necessary to complete the measurement of an area before placement of embankment is started in that area.
- C. The quantities of roadway excavation, structure excavation and ditch excavation, which have been used in the embankment, will be adjusted by multiplying by a grading factor to be determined in the field by the Engineer. No further adjustment will be made in the event that the grading factor determined by the Engineer does not equal the actual grading factor.

The geocomposite drain behind abutments, wingwalls and retaining walls shall conform to the details shown on the plans and the following:

- A. Attention is directed to "Engineering Fabrics" under "Materials" of these special provisions.
- B. Geocomposite drain shall consist of a manufactured core not less than 6.35 mm thick nor more than 50 mm thick with one or both sides covered with a layer of filter fabric that will provide a drainage void. The drain shall produce a flow rate, through the drainage void, of at least 25 liters per minute per meter of width at a hydraulic gradient of 1.0 and a minimum externally applied pressure of 168 kPa.
- C. A Certificate of Compliance conforming to the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications shall be furnished for the geocomposite drain certifying that the drain produces the required flow rate and complies with these special provisions. The Certificate of Compliance shall be accompanied by a flow capability graph for the geocomposite drain showing flow rates for externally applied pressures and hydraulic gradients. The flow capability graph shall be stamped with the verification of an independent testing laboratory.
- D. Filter fabric for the geocomposite drain shall conform to the provisions for fabric for underdrains in Section 88, "Engineering Fabrics," of the Standard Specifications.
- E. The manufactured core shall be either a preformed grid of embossed plastic, a mat of random shapes of plastic fibers, a drainage net consisting of a uniform pattern of polymeric strands forming 2 sets of continuous flow channels, or a system of plastic pillars and interconnections forming a semirigid mat.
- F. The core material and filter fabric shall be capable of maintaining the drainage void for the entire height of geocomposite drain. Filter fabric shall be integrally bonded to the side of the core material with the drainage void. Core material manufactured from impermeable plastic sheeting having nonconnecting corrugations shall be placed with the corrugations approximately perpendicular to the drainage collection system.
- G. The geocomposite drain shall be installed with the drainage void and the filter fabric facing the embankment. The fabric facing the embankment side shall overlap a minimum of 75 mm at all joints and wrap around the exterior edges a minimum of 75 mm beyond the exterior edge. If additional fabric is needed to provide overlap at joints and wrap-around at edges, the added fabric shall overlap the fabric on the geocomposite drain at least 150 mm and be attached thereto.
- H. Should the fabric on the geocomposite drain be torn or punctured, the damaged section shall be replaced completely or repaired by placing a piece of fabric that is large enough to cover the damaged area and provide a minimum 150-mm overlap.
- I. Plastic pipe shall conform to the provisions for edge drain pipe and edge drain outlets in Section 68-3, "Edge Drains," of the Standard Specifications.

- J. Treated permeable base to be placed around the slotted plastic pipe at the bottom of the geocomposite drain shall be cement treated permeable base conforming to the provisions for cement treated permeable base in Section 29, "Treated Permeable Bases," of the Standard Specifications and these special provisions.
- K. The treated permeable base shall be enclosed with a high density polyethylene sheet or PVC geomembrane, not less than 250  $\mu\text{m}$  thick, which is bonded with a suitable adhesive to the concrete and geocomposite drain. Surfaces to receive the polyethylene sheet shall be cleaned before applying the adhesive. The treated permeable base shall be compacted with a vibrating shoe type compactor.
- L. Concrete for use in drainage pads shall be minor concrete, except the concrete shall contain not less than 300 kilograms of cement per cubic meter.

**CONTROLLED BLASTING.** At the contractor's option, blasting of bedrock for footing excavation may be used in conformance with the following provisions:

Project blasting shall conform to Sections 7-1.10, "Use of Explosives," and 19-2.03, "Blasting," of the Standard Specifications and the following:

The Contractor shall control project blasting effects (fly rock, ground motion, and air noise levels) within the safe limits so as not to cause damage to neighboring improvements.

The Contractor shall submit a plan to the Engineer detailing how he proposes to control fly rock, air noise level, ground motion peak particle velocity and acceleration.

No blasting operations, drilling included, shall start until the Engineer has reviewed and approved the blasting plan in accordance with the provisions in Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications. The Contractor shall provide 2 weeks for the Engineer to complete the review of the blasting plan.

In the event that additional blasting plans are required, the Contractor shall provide 2 weeks for the review of each additional plans.

Should the Engineer fail to complete his review within the time allowed, and if, in the opinion of the Engineer, the Contractor's controlling operation is delayed or interfered with by reason of the delay in blasting plan review, an extension of time commensurate with the delay in completion of the work thus caused will be granted as provided in Section 8-1.07, "Liquidated Damages," of the Standard Specifications.

Approval of the Contractor's blasting plan or blasting procedures shall not relieve the Contractor of any of his responsibility under the contract for assuring the complete safety of his operations with respect to neighboring improvements or for the successful completion of the work in conformance with the requirements of the plans and specifications.

The blasting plan shall provide for limiting ground motion (in any direction) to a maximum peak particle velocity of 51 mm/second and an acceleration of 2.1 m/sec.<sup>2</sup>. Air noise level shall be limited to 125 dBA. Controlling fly rock, air noise level, ground motion peak particle velocity and acceleration as specified herein shall not relieve the Contractor of his responsibility for assuring the complete safety of his operation.

The blasting plan shall indicate the type and method of instrumentation proposed by the Contractor to determine air noise levels, ground motor peak particle velocities and accelerations at the nearest improvements. The blasting plan shall also provide for a preblast reconnaissance survey of all adjacent improvements

As an alternative to monitoring peak particle velocity and acceleration, the Contractor has the option to make shot designs based on a scaled distance of  $22.6 \text{ m}/(\text{kg})^{1/2}$  to the nearest improvements. The scaled distance is the ratio of the distance, from the blast to nearest improvement, divided by the square root of the maximum explosive weight for each delay. Delays shall equal or exceed 10 milliseconds.

No blasting shall be performed within 37 meters of a structure if concrete has been placed within the previous 72 hours. No blasting shall be performed within 7.0 meters of any structure, including retaining walls once their construction begins. (See suspension of blasting operations elsewhere in this section).

The Contractor shall keep accurate records of each blast. Blasting records shall be available to the Engineer at all times and shall contain the following data as a minimum:

1. Name of Contractor.
2. Location (station interval and elevation), date and time of blast.
3. Name and signature of responsible blaster.
4. Type of material blasted.
5. Number of holes, burden and spacing.
6. Diameter and depth of holes.
7. Types of explosives used.
8. Total amount of explosives used, kilograms.

9. Maximum amount of explosives per delay period.
10. Method of firing and type of circuit.
11. Direction and distance in meters to nearest improvements, and date of reconnaissance survey.
12. Weather conditions.
13. Direction of wind.
14. Height or length of stemming.
15. Type of delay blasting caps used and delay periods used.
16. Blast identification by numerical and chronological sequence.
17. Powder factor, kilograms of explosive per cubic meters of blasted material.
18. Type and method of instrumentation.
19. Location and placement of instrumentation.
20. Instrumentation records and calculations to determine air noise levels, ground motion peak particle velocity and peak particle acceleration or calculations showing charge weight based on a scaled distance of  $22.6 \text{ m/kg}^{1/2}$ .

Blasting guards in sufficient numbers to assure that people, property and improvements will not be endangered shall be stationed in the areas where blasting operations are to be performed.

Blasting operations may be suspended for any one of the following reasons:

1. Blasting plans are not approved.
2. Safety precautions are inadequate.
3. Blasting records are incomplete or not up to date.
4. Air noise, ground motion peak particle velocity or acceleration exceed the specified limits.
5. Existing neighboring improvements damaged as a result of blasting.

Suspension of the blasting operation shall in no way relieve the Contractor of his responsibilities under the terms of this contract. Blasting operations shall not resume until modifications have been made to correct the conditions that resulted in the suspension. Where rock excavation remains and explosives cannot be used within the limits of these specifications rock shall be broken using expansion chemicals such as Bristar or S-mite, or a hydraulic splitting system such as the Darda splitting system, or other non-explosive techniques.

Blasting complaints shall be accurately recorded by the Contractor as to complainant, address, date, time, nature of complaint, name of person receiving the complaint, the complaint investigation conducted, and the disposition of the complaint. Complaint records shall be available to the Engineer at all times.

Full compensation for controlling fly rock, ground motion, and air noise (record keeping included) shall be considered as included in the contract prices paid as structure excavation (Type D), no separate payments will be made.

#### **MEASUREMENT AND PAYMENT (EARTHWORK)**

Measurement and payment for earthwork shall conform to all provisions for "Measurement" and "Payment" in Section 19, "Earthwork," of the Standard Specifications and these special provisions.

If shoring is required to conform to the provisions in Section 19, "Earthwork," of the Standard Specifications and these special provisions, full compensation for shoring shall be considered as included in the prices paid for the various contract items of work and no separate payment will be made therefor.

If structure excavation or structure backfill involved in bridges is not otherwise designated by type, and payment for the structure excavation or structure backfill has not otherwise been provided for in the Standard Specifications or these special provisions, the structure excavation or structure backfill will be paid for at the contract price per cubic meter for structure excavation (bridge) or structure backfill (bridge).

Structure excavation designated as (Type D), for footings at the locations shown on the plans, will be measured and paid for by the cubic meter as structure excavation (Type D). Ground water or surface water is expected to be encountered at these locations, but seal course concrete is not shown or specified.

Full compensation for geocomposite drain behind wingwalls, retaining walls and bridge abutments shall be considered as included in the contract price paid per cubic meter for structure backfill (bridge) and no additional compensation will be allowed therefor.