

DEPARTMENT OF TRANSPORTATION
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Flex your power!
Be energy efficient!

December 3, 2010

02-Sis-97-40.1/54.1
02-4C0104
Project ID 0200020027
NH-P097(040)E

Addendum No. 3

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN SISKIYOU COUNTY AT AND NEAR MACDOEL FROM JUNIPER KNOLL ROAD TO OREGON STATE LINE.

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 14, 2010.

This addendum is being issued to revise the Project Plans, the Notice to Bidders and Special Provisions, the Bid book, and the Federal Minimum Wages with Modification Number 12 dated 11/19/10.

Project Plan Sheets 3, 4, 9, 11, 12, 17, 18, 19, 20, 21, 25, 26, 27, 28, 29, 30, 31, 32, 33, 36, 37, 38, 39, 40, 41, 44, 45, 46, 47, 49, 51, 52, 58, 59, 75, 76, 77, 78, and 79 are revised. Copies of the revised sheets are attached for substitution for the like-numbered sheets.

Project Plan Sheets 27A, 50A, 50B, 50C, 50D, 80A 80B, 105A and 114A is are added. Copies of the added sheets are attached for addition to the project plans.

In the Notice to Bidders and Special Provisions, in the "STANDARD PLANS LIST," the following Standard Plans are added: NSP T65, ES-6B, RSP ES-6E, ES-7M, ES-7N, ES-8, ES-10, ES-11, ES-13A, ES-13B.

In the Special Provisions, Section 5-1.14, "NOISE CONTROL," the second paragraph is revised as follows:

"Do not exceed 86 dBa at 50 feet from the project limits from 7 p.m. to 7 a.m. between PM 50.2 and PM 51.1 (City of Dorris)."

In the Special Provisions, Section 10-1.01, "ORDER OF WORK," the twenty-second paragraph is deleted.

In the Special Provisions, Section 10-1.071, "TEMPORARY FENCE (TYPE ESA)," is added as attached.

In the Special Provisions, Section 10-1.14, "MAINTAINING TRAFFIC," the following paragraph is added after the eleventh paragraph.

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"Traffic on Route 97 shall always be maintained on a paved surface, and shall not be allowed on a cold planed surface or on an unpaved surface."

In the Special Provisions, Section 10-1.18, "TEMPORARY PAVEMENT DELINEATION," is revised as attached.

In the Special Provisions, Section 10-1.181, "TRAFFIC PLASTIC DRUM," is added as attached.

In the Special Provisions, Section 10-1.20, "TEMPORARY CRASH CUSHION MODULE," is revised as attached.

In the Special Provisions, Section 10-1.22, "EXISTING HIGHWAY FACILITIES," subsection "EXISTING LOOP DETECTORS," is added as attached.

In the Special Provisions, Section 10-1.491, "CRASH CUSHION MODULE (SAND-FILLED)," is added as attached.

In the Special Provisions, Section 10-3.01, "DESCRIPTION," is revised as attached.

In the Special Provisions, Section 10-3.031, " CONDUIT," is added as attached.

In the Special Provisions, Section 10-3.032, " CONDUCTORS, CABLES, AND WIRING," is added as attached.

In the Special Provisions, Section 10-3.033, " DETECTORS," is added as attached.

In the Special Provisions, Section 10-3.034, " LUMINAIRES," is added as attached.

In the Bid book, in the "Bid Item List," Items 8, 17, 26, 27, 29, 32, 34, 35, 36, 38, 46, 49, 51, 57, 58, 66, 67, 68, and 76 are revised, Items 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, and 101 are added and Item 86 is deleted as attached.

To Bid book holders:

Replace page 3, 4, 5, 6, 7 of the "Bid Item List" in the Bid book with the attached revised page 3, 4, 5, 6, 7 and 7A of the Bid Item List. The revised Bid Item List is to be used in the bid.

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.

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.

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Page 3
December 3, 2010

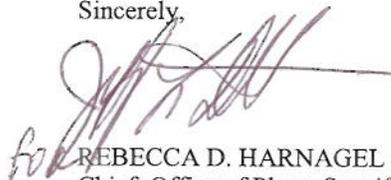
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This addendum, attachments and the modified wage rates are available for the Contractors' download on the Web site:

http://www.dot.ca.gov/hq/esc/oe/project_ads_addenda/02/02-4C0104

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,



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

Attachments

10-1.071 TEMPORARY FENCE (TYPE ESA)

GENERAL

Summary

This work includes constructing, maintaining, and removing temporary fence (Type ESA). Temporary fence (Type ESA) provides a visible boundary adjacent to protected areas such as an environmentally sensitive area.

Signs are not required for temporary fence (Type ESA).

Submittals

Submit a Certificate of Compliance as specified in Section 6-1.07, "Certificates of Compliance" of the Standard Specifications for:

1. High visibility fabric
2. Safety cap for metal posts

MATERIALS

High Visibility Fabric

High visibility fabric for temporary fence (Type ESA) must consist of one of the following:

1. Polyethylene
2. Polypropylene
3. Combined polyethylene and polypropylene

Sample under ASTM D 4354, Procedure C.

Test under ASTM D 4759. All properties must be based on Minimum Average Roll Value.

Identify, store, and handle under ASTM D 4873.

High visibility fabric must:

1. Contain ultraviolet inhibitors
2. Comply with the following:

Property	Specifications	Requirements
Width, inches, Min	Measured	48
Opening size inches	Measured	1" x 1" (Min) 2" x 2" (Max)
Color	Observed	Orange
Grab breaking load 1-inch grip, lb, Min. in each direction	ASTM D4632	260
Apparent elongation percent, Min., in each direction	ASTM D4632	5
Ultraviolet Degradation percent of original unexposed grab breaking load 500 hr, minimum	ASTM D4355	70

Posts

Posts must be wood or steel.

Wood posts must be:

1. Untreated fir, redwood, cedar, or pine and cut from sound timber
2. Straight and free of loose or unsound knots and other defects that would render the stakes unfit for use
3. Pointed on the end to be driven into the ground
4. At least 2" x 2" in size and 6 feet long

Steel posts must:

1. Have a "U," "T," "L," or other cross sectional shape that can resist failure from lateral loads.
2. Be pointed on the end to be driven into the ground.
3. Weigh at least 0.75-pound per foot.
4. Be at least 6 feet long.
5. Have a safety cap attached to the exposed end. The safety cap must be yellow, orange or red plastic and fit snugly to the metal post.

Signs

If specified, signs must be:

1. Weatherproof and fade-proof and may include plastic laminated printed paper affixed to an inflexible weatherproof backer board
2. Attached to the high visibility fabric with tie wire or locking plastic fasteners

CONSTRUCTION

General

Install temporary fence (Type ESA):

1. With high visibility fabric, posts, and fasteners as follows:
 - 1.1. If wood posts are used, fasteners must be staples or nails
 - 1.2. If steel posts are used, fasteners must be tie wires or locking plastic fasteners
 - 1.3. Spacing of the fasteners must be no more than 8 inches apart
2. Before clearing and grubbing activities
3. From outside of the protected area
4. With posts spaced 8 feet apart and embedded at least 16 inches in the soil

If specified, signs must be:

1. Attached with the top of the sign panel flush with the top of the high visibility fabric
2. Placed 100 feet apart along the length and at each end of the fence

If trees and other plants need protection, install fence to:

1. Enclose the foliage canopy (drip line) of protected plants
2. Protect visible roots from encroachment

Maintenance

Maintain temporary fence (Type ESA) by:

1. Keeping posts in a vertical position
2. Reattaching fabric to posts
3. Replacing damaged sections of fabric
4. Replacing and securing signs

Removal

When the Engineer determines that temporary fence (Type ESA) is no longer required, remove and dispose of it under Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

Backfill and repair ground disturbance caused by the installation and removal of temporary fence (Type ESA), including holes and depressions, under Section 15-1.02, "Preservation of Property," of the Standard Specifications.

MEASUREMENT AND PAYMENT

Temporary fence (Type ESA) is measured and paid for by the linear foot in the same manner specified for fence (Type BW or WM) in Section 80, "Fences," of the Standard Specifications.

The contract price paid per linear foot for temporary fence (Type ESA) includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in constructing the temporary fence (Type ESA), complete in place, including maintenance, removal of materials, and backfilling and repairing holes, depressions and other ground disturbance, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as ordered by the Engineer.

10-1.18 TEMPORARY PAVEMENT DELINEATION

Temporary pavement delineation shall be furnished, placed, maintained, and removed in conformance with the provisions in Section 12-3.01, "General," of the Standard Specifications and these special provisions. Nothing in these special provisions shall be construed as reducing the minimum standards specified in the California MUTCD or as relieving the Contractor from the responsibilities specified in Section 7-1.09, "Public Safety," of the Standard Specifications.

GENERAL

When the work causes obliteration of pavement delineation, temporary or permanent pavement delineation shall be in place before opening the traveled way to public traffic. Laneline or centerline pavement delineation shall be provided for traveled ways open to public traffic. On multilane roadways (freeways and expressways) edgeline delineation shall be provided for traveled ways open to public traffic.

The Contractor shall perform the work necessary to establish the alignment of temporary pavement delineation, including required lines or markers. Surfaces to receive application of paint or removable traffic tape temporary pavement delineation shall be dry and free of dirt and loose material. Temporary pavement delineation shall not be applied over existing pavement delineation or other temporary pavement delineation. Temporary pavement delineation shall be maintained until superseded or replaced with a new pattern of temporary pavement delineation or permanent pavement delineation, or as determined by the Engineer.

Temporary pavement markers, including underlying adhesive, and removable traffic tape that are applied to the final layer of surfacing or existing pavement to remain in place or that conflicts with a subsequent or new traffic pattern for the area shall be removed when no longer required for the direction of public traffic, as determined by the Engineer.

TEMPORARY LANELINE AND CENTERLINE DELINEATION

When lanelines or centerlines are obliterated and temporary pavement delineation to replace the lines is not shown on the plans, the minimum laneline and centerline delineation to be provided for that area shall be temporary pavement markers placed at longitudinal intervals of not more than 24 feet. The temporary pavement markers shall be the same color as the laneline or centerline the pavement markers replace. Temporary pavement markers shall be, at the option of the Contractor, one of the temporary pavement markers listed for short term day/night use (14 days or less) or long term day/night use (180 days or less) in "Prequalified and Tested Signing and Delineation Materials" of these special provisions. The temporary pavement markers shall be placed in conformance with the manufacturer's instructions. Temporary pavement markers for long term day/night use (180 days or less) shall be cemented to the surfacing with the adhesive recommended by the manufacturer, except epoxy adhesive shall not be used to place the temporary pavement markers in areas where removal of the temporary pavement markers will be required.

Temporary laneline or centerline delineation consisting entirely of temporary pavement markers listed for short term day/night use (14 days or less), shall be placed on longitudinal intervals of not more than 24 feet and shall be used for a maximum of 14 days on lanes opened to public traffic. Before the end of the 14 days the temporary traffic stripe (paint) delineation shall be placed. If the temporary traffic stripe (paint) delineation is not placed within the 14 days, the Contractor shall replace the temporary pavement markers and provide additional temporary pavement delineation and shall bear the cost thereof. The additional temporary pavement delineation to be provided shall be equivalent to the pattern specified for the temporary traffic stripe (paint) delineation for the area, as determined by the Engineer.

Where "no passing" centerline pavement delineation is obliterated, the following "no passing" zone signing shall be installed before opening the lanes to public traffic. W20-1 (ROAD WORK AHEAD) signs shall be installed from 1,000 feet to 2,000 feet in advance of "no passing" zones. R4-1 (DO NOT PASS) signs shall be installed at the beginning and at every 2,000-foot interval within "no passing" zones. For continuous zones longer than 2 miles, W7-3a or W71(CA) (NEXT _____ MILES) signs shall be installed beneath the W20-1 signs installed in advance of "no passing" zones. R4-2 (PASS WITH CARE) signs shall be installed at the end of "no passing" zones. The exact location of "no passing" zone signing will be as determined by the Engineer and shall be maintained in place until permanent "no passing" centerline pavement delineation has been applied. The signing for "no passing" zones, shall be removed when no longer required for the direction of public traffic. The signing for "no passing" zones shall conform to the provisions in "Construction Area Signs" of these special provisions, except for payment.

TEMPORARY EDGELINE DELINEATION

On multilane roadways (freeways and expressways), when edgelines are obliterated and temporary pavement delineation to replace those edgelines is not shown on the plans, the edgeline delineation to be provided for those areas adjacent to lanes open to public traffic shall be as follows:

1. Temporary pavement delineation for right edgelines shall, at the option of the Contractor, consist of either a solid 4-inch wide traffic stripe tape of the same color as the stripe it replaces, traffic cones, portable delineators or channelizers placed at longitudinal intervals not to exceed 100 feet.
2. Temporary pavement delineation for left edgelines shall, at the option of the Contractor, consist of either solid 4-inch wide traffic stripe tape of the same color as the stripe it replaces, traffic cones, portable delineators or channelizers placed at longitudinal intervals not to exceed 100 feet or temporary pavement markers placed at longitudinal intervals of not more than 6 feet.

Where removal of the 4-inch wide traffic stripe will not be required, painted traffic stripe conforming to the provisions of "Temporary Traffic Stripe (Paint)" of these special provisions may be used.

The lateral offset for traffic cones, portable delineators or channelizers used for temporary edgeline delineation shall be as determined by the Engineer. If traffic cones or portable delineators are used as temporary pavement delineation for edgelines, the Contractor shall provide personnel to remain at the project site to maintain the cones or delineators during the hours of the day that the portable delineators are in use.

Channelizers used for temporary edgeline delineation shall be the surface mounted type and shall be orange in color. Channelizer bases shall be cemented to the pavement in the same manner provided for cementing pavement markers to pavement in "Pavement Markers" of these special provisions, except epoxy adhesive shall not be used to place channelizers on the top layer of pavement. Channelizers shall be, at the Contractor's option, one of the surface mount types (36 inch) listed in "Prequalified and Tested Signing and Delineation Materials" of these special provisions.

Temporary edgeline delineation shall be removed when no longer required for the direction of public traffic as determined by the Engineer.

TEMPORARY TRAFFIC STRIPE (PAINT)

The painted temporary traffic stripe shall be complete in place at the location shown before opening the traveled way to public traffic. Removal of painted temporary traffic stripe will not be required.

Temporary painted traffic stripe shall conform to the provisions in Section 84-3, "Painted Traffic Stripes and Pavement Markings," of the Standard Specifications, except for payment. At the option of the Contractor, either one or 2 coats shall be applied regardless of whether on new or existing pavement.

TEMPORARY PAVEMENT MARKING (TAPE)

Temporary pavement marking consisting of removable pavement marking tape shall be applied at the locations shown on the plans. The temporary pavement marking tape shall be complete in place at the location shown, before opening the traveled way to public traffic.

Removable pavement marking tape shall be the temporary removable type pavement marking tape listed in "Prequalified and Tested Signing and Delineation Materials" of these special provisions and shall be applied and removed in conformance with the provisions specified for applying and removing the temporary traffic stripe tape.

TEMPORARY PAVEMENT MARKING (PAINT)

Temporary pavement marking consisting of painted pavement marking shall be applied and maintained at the locations shown on the plans. The painted temporary pavement marking shall be complete in place at the location shown before opening the traveled way to public traffic. Removal of painted temporary pavement marking will not be required.

Temporary painted pavement marking shall conform to the provisions in "Paint Traffic Stripe and Pavement Marking" of these special provisions, except for payment. At the option of the Contractor, either one or 2 coats shall be applied regardless whether on new or existing pavement.

At the Contractor's option, temporary removable pavement marking tape or permanent pavement marking tape listed in "Prequalified and Tested Signing and Delineation Materials" of these special provisions may be used instead of painted temporary pavement markings. When pavement marking tape is used, regardless of which type of tape is placed, the tape will be measured and paid for by the square foot as temporary pavement marking (paint).

MEASUREMENT AND PAYMENT

Temporary traffic stripe and temporary pavement marking shown on the plans will be measured and paid for in the same manner specified for paint traffic stripe and paint pavement marking in Section 84-3.06, "Measurement," and Section 84-3.07, "Payment," of the Standard Specifications.

Full compensation for furnishing, placing, maintaining, and removing the temporary pavement markers (including underlying adhesive, layout (dribble) lines to establish alignment of temporary pavement markers or used for temporary laneline and centerline delineation and signing specified for "no passing" zones) for those areas where temporary laneline and centerline delineation is not shown on the plans and for providing equivalent patterns of permanent traffic lines for those areas when required, shall be considered as included in the contract prices paid for the items of work that obliterated the laneline and centerline pavement delineation and no separate payment will be made therefor.

Full compensation for furnishing, placing, maintaining, and removing temporary edgeline delineation not shown on the plans shall be considered as included in the contract prices paid for the items of work that obliterated the edgeline pavement delineation and no separate payment will be made therefor. The quantity of channelizers used as temporary edgeline delineation will not be included in the quantity of channelizer (surface mounted) to be paid for.

10-1.181 TRAFFIC PLASTIC DRUMS

GENERAL

Summary

Work includes placing traffic plastic drums.
Comply with:

1. Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications
2. Section 6F.62, "Drums," of the California Manual On Uniform Traffic Control Devices
3. Traffic plastic drum manufacturer's recommendations for weight and ballast

Definitions

orange-colored: Orange-colored may be either orange, red-orange, fluorescent orange or fluorescent red-orange in color.

Submittals

Upon request, submit a Certificate of Compliance for Traffic Plastic Drum under Section 6-1.07, "Certificates of Compliance," of the Standard Specifications.

Quality Control and Assurance

White and orange-colored retroreflective stripes must be a brand of retroreflective sheeting listed on the Department's "Prequalified and Tested Signing and Delineation Materials," of these special provisions. White and orange-colored stripe may be either Type III, Type IV, Type VI, Type VII, Type VIII, or Type IX retroreflective sheeting. Use the same type and brand of retroreflective sheeting for all traffic plastic drums.

MATERIALS

Traffic plastic drum must:

1. Be orange-colored low-density polyethylene
2. Be flexible and collapsible upon vehicle impact
3. Have a weighted-base to maintain an upright position and prevent displacement under passing traffic

Weighted-base must be:

1. Detachable
2. Shaped to prevent rolling upon impact
3. 38-inch maximum outside diameter
4. 4-inch maximum height above the ground surface

CONSTRUCTION

Place a traffic plastic drum on only one side of the traveled way, in a straight line on a tangent alignment, and in a true arc on a curved alignment.

Use only one type of traffic plastic drum on the job site. Do not intermix traffic plastic drums, portable delineators, tubular markers, traffic cones, and Type I and Type II barricades on the same alignment.

Do not use sandbags or comparable ballast.

Traffic plastic drum must be a minimum of 36 inches in height above the traveled way.

Immediately restore a displaced traffic plastic drum to its original location and upright position.

Upon completion of work, traffic plastic drums become your property and must be removed from the job site.

MEASUREMENT AND PAYMENT

Traffic plastic drum is measured by the unit from actual count designated on the plans or ordered by the Engineer.

After initial placement of traffic plastic drums, and if ordered by the Engineer, traffic plastic drums must be moved from location to location, the cost thereof will be paid for as extra work as specified in Section 4-1.03D, "Extra Work," of the Standard Specifications.

The contract unit price paid for traffic plastic drum includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in placing and maintaining traffic plastic drums, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-1.20 TEMPORARY CRASH CUSHION MODULE

This work shall consist of furnishing, installing, and maintaining sand filled temporary crash cushion modules in groupings or arrays at each location shown on the plans, as specified in these special provisions or where designated by the Engineer. The grouping or array of sand filled modules shall form a complete sand filled temporary crash cushion in conformance with the details shown on the plans and these special provisions.

Temporary crash cushions shall be secured in place prior to commencing work for which the temporary crash cushions are required.

Whenever the work or the Contractor's operations establishes a fixed obstacle, the exposed fixed obstacle shall be protected with a sand filled temporary crash cushion. The sand filled temporary crash cushion shall be in place prior to opening the lanes adjacent to the fixed obstacle to public traffic.

Sand filled temporary crash cushions shall be maintained in place at each location, including times when work is not actively in progress. Sand filled temporary crash cushions may be removed during a work period for access to the work provided that the exposed fixed obstacle is 15 feet or more from a lane carrying public traffic and the temporary crash cushion is reset to protect the obstacle prior to the end of the work period in which the fixed obstacle was exposed. When no longer required, as determined by the Engineer, sand filled temporary crash cushions shall be removed from the site of the work.

Sand filled temporary crash cushion modules shall be one of the following, or equal, and be manufactured after March 31, 1997:

1. Energite III and Fitch Inertial Modules, manufactured by Energy Absorption Systems, Inc., 35 East Wacker Drive, Suite 1100, Chicago, IL 60601:
 - 1.1. Northern California: Traffic Control Service, Inc., 8585 Thys Court, Sacramento, CA 95828, telephone (800) 884-8274, FAX (916) 387-9734
 - 1.2. Southern California: Traffic Control Service, Inc., 1818 E. Orangethorpe, Fullerton, CA 92831-5324, telephone (800) 222-8274, FAX (714) 526-9501
2. Traffix Sand Barrels, manufactured by Traffix Devices, Inc., 220 Calle Pintoresco, San Clemente, CA 92672, telephone (949) 361-5663, FAX (949) 361-9205
 - 2.1. Northern California: United Rentals, Inc., 1533 Berger Drive, San Jose, CA 95112, telephone (408) 287-4303, FAX (408) 287-1929
 - 2.2. Southern California: Statewide Safety & Sign, Inc., P.O. Box 1440, Pismo Beach, CA 93448, telephone (800) 559-7080, FAX (805) 929-5786
3. CrashGard Model CC-48 Sand Barrels, manufactured by Plastic Safety Systems, Inc., 2444 Baldwin Road, Cleveland, OH 44104:
 - 3.1. Northern California:
 - 3.1.1. Capitol Barricade Safety & Sign, 6329 Elvas Ave, Sacramento, CA 95819, telephone (888) 868-5021, FAX (916) 451-5388
 - 3.1.2. Sierra Safety, Inc., 9093 Old State Highway, New Castle, CA 95658, telephone (916) 663-2026, FAX (916) 663-1858
 - 3.2. Southern California: Hi Way Safety Inc., 13310 5th Street, Chino, CA 91710, telephone (909) 591-1781, FAX (909) 627-0999

Modules contained in each temporary crash cushion shall be of the same type at each location. The color of the modules shall be the standard yellow color, as furnished by the vendor, with black lids. The modules shall exhibit good workmanship free from structural flaws and objectionable surface defects. The modules need not be new. Good used undamaged modules conforming to color and quality of the types specified herein may be utilized. If used Fitch modules requiring a seal are furnished, the top edge of the seal shall be securely fastened to the wall of the module by a continuous strip of heavy duty tape.

Modules shall be filled with sand in conformance with the manufacturer's directions, and to the sand capacity in pounds for each module shown on the plans. Sand for filling the modules shall be clean washed concrete sand of commercial quality. At the time of placing in the modules, the sand shall contain not more than 7 percent water as determined by California Test 226.

Modules damaged due to the Contractor's operations shall be repaired immediately by the Contractor at the Contractor's expense. Modules damaged beyond repair, as determined by the Engineer, due to the Contractor's operations shall be removed and replaced by the Contractor at the Contractor's expense.

Temporary crash cushion modules may be placed on movable pallets or frames. Comply with dimensions shown on the plans. The pallets or frames shall provide a full bearing base beneath the modules. The modules and supporting pallets or frames shall not be moved by sliding or skidding along the pavement or bridge deck.

A Type R or P marker panel shall be attached to the front of the crash cushion as shown on the plans, when the closest point of the crash cushion array is within 12 feet of the traveled way. The marker panel, when required, shall be firmly fastened to the crash cushion with commercial quality hardware or by other methods determined by the Engineer.

At the completion of the project, temporary crash cushion modules, sand filling, pallets or frames, and marker panels shall become the property of the Contractor and shall be removed from the site of the work. Temporary crash cushion modules shall not be installed in the permanent work.

Temporary crash cushion modules will be measured by the unit as determined from the actual count of modules used in the work or ordered by the Engineer at each location. Temporary crash cushion modules placed in conformance with Section 7-1.09, "Public Safety," of the Standard Specifications and modules placed in excess of the number specified or shown will not be measured nor paid for.

Repairing modules damaged by public traffic will be paid for as extra work as provided in Section 4-1.03D of the Standard Specifications. Modules damaged beyond repair by public traffic, when ordered by the Engineer, shall be removed and replaced immediately by the Contractor. Modules replaced due to damage by public traffic will be measured and paid for as temporary crash cushion module.

If the Engineer orders a lateral move of the sand filled temporary crash cushions and the repositioning is not shown on the plans, moving the sand filled temporary crash cushion will be paid for as extra work as provided in Section 4-1.03D of the Standard Specifications and these temporary crash cushion modules will not be counted for payment in the new position.

The contract unit price paid for temporary crash cushion module shall include full compensation for furnishing all labor, materials (including sand, pallets or frames and marker panels), tools, equipment, and incidentals, and for doing all the work involved in furnishing, installing, maintaining, moving, and resetting during a work period for access to the work, and removing from the site of the work when no longer required (including those damaged by public traffic) sand filled temporary crash cushion modules, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

EXISTING LOOP DETECTORS

The existing inductive loop detectors shown on the plans shall remain in place.

If part of the loop conductor, including the portion leading to the adjacent pull box, is damaged by the Contractor's operations, the entire detector loop shall be replaced at the Contractor's expense within 2 weeks of completion of operations which caused the damage. Adjacent loops damaged during the replacement shall also be replaced.

10-1.491 CRASH CUSHION, SAND FILLED

Sand filled crash cushions shall be furnished and installed as shown on the plans and in conformance with these special provisions.

A sand filled crash cushion shall consist of a grouping of sand filled modules.

Crash cushions shall be installed at the following locations:

California Department of Food and Agriculture BPS.

At the Contractor's option, modules for use in sand filled crash cushions shall be either Energite III Inertial Modules, Fitch Inertial Modules or Traffix Sand Barrels manufactured after March 31, 1997, or equal:

1. Energite III and Fitch Inertial Modules, manufactured by Energy Absorption Systems, Inc., 35 East Wacker Drive, Suite 1100, Chicago, IL 60601:
 - 1.1. Northern California: Traffic Control Service, Inc., 8585 Thys Court, Sacramento, CA 95828, telephone (800) 884-8274, FAX (916) 387-9734
 - 1.2. Southern California: Traffic Control Service, Inc., 1818 E. Orangethorpe, Fullerton, CA 92831-5324, telephone (800) 222-8274, FAX (714) 526-9501
2. Traffix Sand Barrels, manufactured by Traffix Devices, Inc., 220 Calle Pintoresco, San Clemente, CA 92672, telephone (949) 361-5663, FAX (949) 361-9205
 - 2.1. Northern California: United Rentals, Inc., 1533 Berger Drive, San Jose, CA 95112, telephone (408) 287-4303, FAX (408) 287-1929
 - 2.2. Southern California: Statewide Safety & Sign, Inc., P.O. Box 1440, Pismo Beach, CA 93448, telephone (800) 559-7080, FAX (805) 929-5786

Modules contained in the crash cushion shall be of the same type at each location. The color of the modules shall be the standard yellow color as furnished by the vendor, with black lids. The exterior components of the modules shall be formulated or processed to resist deterioration from ambient ultraviolet rays. The modules shall exhibit good workmanship free from structural flaws and objectionable surface defects.

The Contractor shall provide the Engineer with a Certificate of Compliance from the manufacturer in conformance with the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications. The Certificate of Compliance shall certify that the crash cushions comply with the contract plans and specifications, conform to the prequalified design and material requirements, and were manufactured in conformance with the approved quality control program.

Sand for filling the modules shall be clean washed concrete sand of commercial quality. At the time of placing in the modules, the sand shall contain not more than 7 percent water, as determined by California Test 226.

Modules placed on bridge decks shall be provided with positioning blocks fastened to the deck surface. Positioning blocks shall be shaped as segments of a ring and placed along the inner or outer periphery of the module wall. A minimum of 2 blocks, a minimum of one-sixth of a ring in length shall be provided for each module. Positioning blocks and fasteners shall be of a material that is corrosion and water resistant.

Module cylinders shall be filled with sand in conformance with the manufacturer's directions and to the sand capacity in pounds for each module shown on the plans.

Lids shall be securely attached as recommended by the manufacturer.

A Type R or Type P marker panel shall be attached to the front of the crash cushion as shown on the plans, when the closest point of the crash cushion array is within 12 feet of the traveled way. The marker panel, when required, shall be firmly fastened to the crash cushion with commercial quality hardware or by other methods approved by the Engineer.

Sand filled crash cushions, regardless of the number of modules required in each sand filled crash cushion, will be measured and paid for by the unit as crash cushion, sand filled. The quantity to be paid for will be determined from actual count of the units in place in the completed work.

The contract unit price paid for crash cushion, sand filled shall include full compensation for furnishing all labor, materials (including sand and marker panels), tools, equipment, and incidentals, and for doing all the work involved in furnishing and installing crash cushions, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-3.01 DESCRIPTION

Lighting, traffic monitoring stations and maintaining existing traffic management system elements during construction shall conform to the provisions in Section 86, "Electrical Systems," of the Standard Specifications and these special provisions.

10-3.031 CONDUIT

Conduit to be installed underground shall be Type 1 unless otherwise specified.

Conduit to be installed on wood poles shall be Type 1.

After conductors have been installed, the ends of conduits terminating in pull boxes shall be sealed with an approved type of sealing compound.

10-3.032 CONDUCTORS, CABLES, AND WIRING

Splices shall be insulated by "Method B" or, at the Contractor's option, splices of conductors shall be insulated with heat-shrink tubing of the appropriate size after thoroughly painting the spliced conductors with electrical insulating coating.

10-3.033 DETECTORS

Loop wire shall be Type 2.

Slots shall be filled with asphaltic emulsion sealant.

At the Contractor's option, where a Type A loop is designated on the plans, a Type E loop may be substituted.

For Type E detector loops, sides of the slot shall be vertical and the minimum radius of the slot entering and leaving the circular part of the loop shall be 1-1/2 inches. Slot width shall be a maximum of 5/8 inch. Loop wire for circular loops shall be Type 2. Slots of circular loops shall be filled with elastomeric sealant or hot melt rubberized asphalt sealant.

10-3.034 LUMINAIRES

Ballasts shall be the lag or lead regulator type.

BID ITEM LIST
02-4C0104

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	150		
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	LF	2,610		
6	074031	TEMPORARY GRAVEL BAG BERM	LF	110		
7	074034	TEMPORARY COVER	SQYD	1,730		
8	074038	TEMPORARY DRAINAGE INLET PROTECTION	EA	43		
9	074039	TEMPORARY HYDRAULIC MULCH (POLYMER STABILIZED FIBER MATRIX)	SQYD	3,470		
10	074042	TEMPORARY CONCRETE WASHOUT (PORTABLE)	LS	LUMP SUM	LUMP SUM	
11	074057	STORM WATER ANNUAL REPORT	EA	1		
12	120090	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	LUMP SUM	
13	120100	TRAFFIC CONTROL SYSTEM	LS	LUMP SUM	LUMP SUM	
14	120149	TEMPORARY PAVEMENT MARKING (PAINT)	SQFT	2,810		
15	120159	TEMPORARY TRAFFIC STRIPE (PAINT)	LF	241,000		
16	128650	PORTABLE CHANGEABLE MESSAGE SIGN	LS	LUMP SUM	LUMP SUM	
17	150608	REMOVE CHAIN LINK FENCE	LF	380		
18	150630	REMOVE MARKER	EA	48		
19	150662	REMOVE METAL BEAM GUARD RAILING	LF	1,450		
20	150742	REMOVE ROADSIDE SIGN	EA	230		

BID ITEM LIST
02-4C0104

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
21	150771	REMOVE ASPHALT CONCRETE DIKE	LF	33		
22	150805	REMOVE CULVERT	EA	11		
23	150820	REMOVE INLET	EA	10		
24	150821	REMOVE HEADWALL	EA	1		
25	151224	REMOVE DELINEATOR	EA	390		
26	151572	RECONSTRUCT METAL BEAM GUARD RAILING	LF	3,110		
27	152469	ADJUST UTILITY COVER TO GRADE	EA	39		
28	153103	COLD PLANE ASPHALT CONCRETE PAVEMENT	SQYD	310,000		
29	153210	REMOVE CONCRETE	CY	51		
30	160101	CLEARING AND GRUBBING	LS	LUMP SUM	LUMP SUM	
31	170101	DEVELOP WATER SUPPLY	LS	LUMP SUM	LUMP SUM	
32	190101	ROADWAY EXCAVATION	CY	24,910		
33	190110	LEAD COMPLIANCE PLAN	LS	LUMP SUM	LUMP SUM	
34	194001	DITCH EXCAVATION	CY	380		
35	198007	IMPORTED MATERIAL (SHOULDER BACKING)	TON	8,480		
36	198205	SUBGRADE ENHANCEMENT GEOTEXTILE	SQYD	52,300		
37	203032	EROSION CONTROL (HYDROSEED) (ACRE)	ACRE	5		
38	260201	CLASS 2 AGGREGATE BASE	CY	14,200		
39	365001	SAND COVER	TON	320		
40	370120	ASPHALT-RUBBER BINDER	TON	820		

BID ITEM LIST
02-4C0104

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
41	374002	ASPHALTIC EMULSION (FOG SEAL COAT)	TON	53		
42	375030	SCREENINGS (HOT-APPLIED)	TON	3,920		
43	390131	HOT MIX ASPHALT	TON	121,000		
44	394050	RUMBLE STRIP	STA	1,220		
45	394060	DATA CORE	LS	LUMP SUM	LUMP SUM	
46	394073	PLACE HOT MIX ASPHALT DIKE (TYPE A)	LF	640		
47	394076	PLACE HOT MIX ASPHALT DIKE (TYPE E)	LF	1,550		
48	394077	PLACE HOT MIX ASPHALT DIKE (TYPE F)	LF	3,650		
49	394090	PLACE HOT MIX ASPHALT (MISCELLANEOUS AREA)	SQYD	130		
50	397005	TACK COAT	TON	32		
51 (F)	510502	MINOR CONCRETE (MINOR STRUCTURE)	CY	56.2		
52	560248	FURNISH SINGLE SHEET ALUMINUM SIGN (0.063"-UNFRAMED)	SQFT	600		
53	560249	FURNISH SINGLE SHEET ALUMINUM SIGN (0.080"-UNFRAMED)	SQFT	1,030		
54	560252	FURNISH SINGLE SHEET ALUMINUM SIGN (0.080"-FRAMED)	SQFT	690		
55	566011	ROADSIDE SIGN - ONE POST	EA	160		
56	566012	ROADSIDE SIGN - TWO POST	EA	18		
57	650211	18" REINFORCED CONCRETE PIPE (CLASS II)	LF	1,510		
58	019385	14" X 23" OVAL SHAPED REINFORCED CONCRETE PIPE (CLASS II)	LF	1,970		
59	690105	8" CORRUGATED STEEL PIPE DOWNDRAIN (.064" THICK)	LF	10		
60	692003	8" ENTRANCE TAPER	EA	1		

BID ITEM LIST
02-4C0104

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
61	692303	8" ANCHOR ASSEMBLY	EA	2		
62	721008	ROCK SLOPE PROTECTION (LIGHT, METHOD B)	CY	14		
63	721010	ROCK SLOPE PROTECTION (BACKING NO. 1, METHOD B)	CY	140		
64	721012	ROCK SLOPE PROTECTION (BACKING NO. 3, METHOD B)	CY	95		
65	729010	ROCK SLOPE PROTECTION FABRIC	SQYD	470		
66	731502	MINOR CONCRETE (MISCELLANEOUS CONSTRUCTION)	CY	88		
67 (F)	750001	MISCELLANEOUS IRON AND STEEL	LB	13,553		
68	800360	CHAIN LINK FENCE (TYPE CL-6)	LF	380		
69	810111	SURVEY MONUMENT (TYPE A)	EA	15		
70	820107	DELINEATOR (CLASS 1)	EA	10		
71	820108	DELINEATOR (CLASS 2)	EA	490		
72	820110	MILEPOST MARKER	EA	28		
73	820112	MARKER (CULVERT)	EA	5		
74	820152	OBJECT MARKER (TYPE L-2)	EA	20		
75	832013	METAL BEAM GUARD RAILING (7' POST)	LF	250		
76	832070	VEGETATION CONTROL (MINOR CONCRETE)	SQYD	360		
77	839568	TERMINAL ANCHOR ASSEMBLY (TYPE SFT)	EA	6		
78	839585	ALTERNATIVE FLARED TERMINAL SYSTEM	EA	3		
79	019386	ALTERNATIVE CRASH CUSHION	EA	1		
80	840582	4" TWO-COMPONENT PAINT TRAFFIC STRIPE	LF	241,000		

BID ITEM LIST
02-4C0104

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
81	840584	8" TWO-COMPONENT PAINT TRAFFIC STRIPE	LF	4,230		
82	840661	TWO-COMPONENT PAINT PAVEMENT MARKING	SQFT	3,350		
83	850122	PAVEMENT MARKER (RETROREFLECTIVE-RECESSED)	EA	3,850		
84	860090	MAINTAINING EXISTING TRAFFIC MANAGEMENT SYSTEM ELEMENTS DURING CONSTRUCTION	LS	LUMP SUM	LUMP SUM	
85	860930	TRAFFIC MONITORING STATION	LS	LUMP SUM	LUMP SUM	
86	BLANK					
87	071325	TEMPORARY FENCE (TYPE ESA)	LF	140		
88	120152	TEMPORARY PAVEMENT MARKING (TAPE)	SQFT	85		
89	120199	TRAFFIC PLASTIC DRUM	EA	10		
90	129000	TEMPORARY RAILING (TYPE K)	LF	1,000		
91	129100	TEMPORARY CRASH CUSHION MODULE	EA	27		
92	020071	REMOVE CHAIN LINK GATE	EA	2		
93	020072	REMOVE BOLLARD	EA	2		
94	156585	REMOVE CRASH CUSHION	EA	4		
95	158210	RESET TEMPORARY RAILING (TYPE K)	LF	1,040		
96	020073	RESET TEMPORARY CRASH CUSHION	EA	2		
97	520101	BAR REINFORCEMENT STEEL	LB	1,689		
98	802670	24" CHAIN LINK GATE (TYPE CL-6)	EA	2		
99	839631	CRASH CUSHION MODULE (SAND FILLED)	EA	16		
100	862026	LIGHTING AREA	LS	LUMP SUM	LUMP SUM	

BID ITEM LIST
02-4C0104

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
101	999990	MOBILIZATION	LS	LUMP SUM	LUMP SUM	

TOTAL BID:

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