

**ADDENDUM No. 2
TO APPROVED PLANS AND SPECIFICATIONS
January 14, 2011**



Re: Letting of January 21, 2011

ADDENDUM

<u>No.</u>	<u>CN/PROJECT No.</u>	<u>COUNTY</u>	<u>ISSUE DATE</u>
1.	ES02107/ES02107 3100010/3100010	Dona Ana Valencia	1/12/11
2.	3973/BR-064-6(25)242 ES02107/ES02107 3100010/3100010	Taos Dona Ana Valencia	1/14/11

3973/BR-064-6(25)242 - Attachment

YOU ARE HEREBY ADVISED OF THE FOLLOWING:

Reference is made to Sheet 5-1 of the plans. General Note No. 12 has been deleted and replaced with the following:

Deck Scarification and Deck Preparation. The top surface of the deck shall be removed to within 1/4" of the embedded steel grid reinforcement. Concrete milling will not be allowed in the removal process. Hydrodemolition shall be used for the concrete removal in the deck in accordance to Special Provisions Modifying Section 530.3.3.7 - Hydrodemolition. Hydrodemolition and preparation of deck for overlay shall be paid for under Item 530100 - Deck Scarification and Item 530200 - Deck Preparation. The deck shall be overlaid with a polyester concrete conforming to Special Provision Section 537 – Polyester Concrete Bridge Deck Overlay.

Reference is made to the Special Provisions for Polyester Concrete Bridge Deck Overlay - Section 537 (7/19/10). Subsection 537.3.2.3 Deck Preparation has been deleted and replaced with the following:

After hydrodemolition is completed and all loose material is removed, sound the deck under the direction of the Project Manager and mark areas of unacceptable concrete, including full depth areas. Remove unsound and deteriorated concrete in the marked areas. Removal method must be approved by the Project Manager prior to removing unsound concrete.

Close and protect deck drains and areas of curb or railing above proposed surface to ensure that HMWM primer, polyester concrete and aggregate do not contaminate these areas.

Adequately isolate expansion joints and weakened plane joints before overlaying or saw them by approved methods within 4 hours after overlay placement.

The quantity for Item No. 530200 – Deck Preparation has been revised. The estimated quantity is indicated below.

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Bid Schedule Sheet 4 revised under the date of 1/14/11 is **attached**. Please incorporate this sheet into your contract assembly. The following is a summary of the item and quantity changes.

SECTION 0002 Bridge

<u>Item No.</u>	<u>Description</u>	<u>Previous Quantity</u>	<u>New Quantity</u>	
530200	Deck Preparation	4,000	600	S.Y.

ES02107/ES02107 - Attachment

YOU ARE HEREBY ADVISED OF THE FOLLOWING:

Reference is made to Addenda No. 1. The quantity for Item No. 704099 - Temporary Striping has been revised. The estimated quantity is indicated below.

Reference is made to Addenda No. 1. Item No. 704754 – Retroreflective Preformed Patterned Pavement Stripe 4” has been incorporated into this contract. The estimated quantity is indicated below.

Reference is made to Addenda No. 1. Bid Schedule Cover Sheet and Bid Schedule Sheet 7 revised under the date of 1/14/11 are **attached**. Please incorporate these sheets into your contract assembly. The following is a summary of the item and quantity changes.

SECTION 0001 Roadway

<u>Item No.</u>	<u>Description</u>	<u>Previous Quantity</u>	<u>New Quantity</u>	
704099	Temporary Striping	119,500	72,000	L.F
704754	Retroreflective Preformed Patterned Pavement Stripe 4”	-0-	47,500	L.F.

3100010/3100010 – Attachments

YOU ARE HEREBY ADVISED OF THE FOLLOWING:

Reference is made to CBC 28A located at Station 28+47.44 (NM 47) shown on Sheet 10-1 of the plans (Phase I). An 8’ x 4’ pre-cast CBC under NM 47 shall replace the 8’ x 4’ cast-in-place CBC. The Contractor shall build the 8’ x 4’ pre-cast CBC between the following extents:

From the wingwall located at the outlet of the culvert on the west side of NM 47 to the eastern existing edge of pavement of NM 47. All connections between the pre-cast CBC, the cast-in-place CBC and the headwall shall be engineered and approved through shop drawings submitted to the NMDOT by the Contractor.

Reference is made to Sheet 6-1 of the plans (Phase I). Phase I of the Sequence of Construction has been deleted and replaced with the following:

Phase I

Within a continuous 48 hour-span of time, install the pre-cast portion of the 8' x 4' CBC. During working hours (6 a.m. to 3 p.m.), utilize a flagging operation and an unpaved detour along the eastern side of NM 47. During non-working hours (3 p.m. to 6 a.m.), utilize the unpaved detour along the eastern side of NM 47 for traffic to pass around the work area. Upon completion of the placement of the pre-cast CBC, the Contractor shall place 200 square yards of detour pavement as detailed in the NMDOT specifications to an elevation flush with the existing pavement until reconstruction of the entire roadway begins. The Contractor shall place 200 linear feet of temporary concrete wall barrier along the eastern edge of NM 47 for the placement of the cast-in-place CBC.

The remaining length of the cast-in-place CBC, the wingwalls, slope paving, rip-rap, asphalt swale, inlet and 28" x 18" storm drain culvert pipe arch shall be placed utilizing shoulder closures. Only one direction of NM 47 shall be under traffic control restrictions at any given time during this work.

From approximate MP 19.2 to approximate MP 19.6, shoulder widening, reconstruction of NM 47 with shoulder widening, driveway improvements and curb and gutter installation north of NM 309 on NM 47 shall be constructed utilizing a flagging operation as shown on Sheet 6-6. Only one direction of NM 47 shall be under traffic control restrictions at any given time during this work. The Contractor shall complete all work started within the work zone at the beginning of the work day such that the project, in its entirety, shall be open to two-lane traffic at the end of working hours.

Special Provisions for Precast Concrete Box Culvert – Section 511-F have been incorporated into this contract. The **attached** Special Provision **dated 1/13/11** is for your information and inclusion into your contract assembly.

Reference is made to Item No. 601000 – Removal of Structures and Obstructions. The following has been incorporated into the schedule for this item shown on Sheet 2-7 of the plans (Phase I):

The Contractor shall remove approximately 90 linear feet of a 54 inch CMP crossing NM 47 at Station 28+47. The Contractor shall also remove the concrete channel at the inlet of the 54 inch CMP.

The Contractor shall remove 24 feet of the inlet at Station 27+85 RT and approximately 65 linear feet of a 24 inch drainage structure traveling north from the inlet to the 54 inch CMP.

Reference is made to Item No. 702810 – Traffic Control Devices for Construction. The following has been incorporated into the schedule for this item shown on Sheet 6-5 of the plans (Phase I):

200 linear feet of temporary concrete wall barrier.

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The quantities for Item Nos. 511030 – Structural Concrete, Class AA and 540060 – Reinforcing Bars Grade 60 have been revised. The estimated quantities are indicated below.

Item No. 511802 – Reinforced Concrete Box Culvert, 7.5' – 12.4' has been incorporated into this contract. The estimated quantity is indicated below.

Item No. 405000 – Detour Pavement Construction has been incorporated into this contract. Detour Pavement shall be utilized for the pre-cast CBC and the pedestrian detour. The estimated quantity is indicated below.

Bid Schedule Cover Sheet and Bid Schedule Sheets 1, 2 and 3 revised under the date of 1/14/11 are **attached**. Please incorporate these sheets into your contract assembly. The following is a summary of the item and quantity changes.

SECTION 0001 Roadway

<u>Item No.</u>	<u>Description</u>	<u>Previous Quantity</u>	<u>New Quantity</u>	
405000	Detour Pavement Construction	-0-	1,280	S.Y.
511030	Structural Concrete, Class AA	178	142	C.Y.
511802	Reinforced Concrete Box Culvert, 7.5' – 12.4'	-0-	50	L.F.
540060	Reinforcing Bars Grade 60	47,920	39,070	LB

Alvin C. Dominguez, Cabinet Secretary Designee
New Mexico Department of Transportation

ACD:JM

PROJECT(S) : BR-064-6(25)242

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0280	511200 STRUCTURAL CONCRETE, CLASS A-4"	525.000 S.Y.	.	.	.	.
0290	529000 PIER AND ABUTMENT BEARING MODIFICATIONS	LUMP	LUMP	.	.	.
0300	529002 DISK BEARING DEVICE (GUIDED)	6.000 EACH	.	.	.	.
0310	530100 DECK SCARIFICATION	4000.000 S.Y.	.	.	.	.
0320	530200 DECK PREPARATION	600.000 S.Y.	.	.	.	.
0330	532000 PENETRATING WATER REPELLENT TREATMENT	2070.000 S.Y.	.	.	.	.
0340	532100 PERMANENT ANTI-GRAFFITI PROTECTIVE COATING	2345.000 S.F.	.	.	.	.
0350	533000 REPAIR OF CONCRETE STRUCTURES	771.000 S.Y.	.	.	.	.
0360	533400 CARBON FIBER REINFORCEMENT	452.000 S.F.	.	.	.	.
0370	534000 EPOXY INJECTION, TYPE I	10.000 GAL	.	.	.	.

NEW MEXICO DEPARTMENT OF TRANSPORTATION

BID NUMBER: ES02107

PROJECT(S)

ES02107

THE CONTRACTOR MUST BID ON 117 ITEMS, ENTER ALL UNIT PRICES,
MAKE ALL EXTENSIONS AND TOTAL THE BID.

CONTRACTOR _____

TOTAL AMOUNT BID \$ _____

PROJECT(S) : ES02107

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0600	702320 VERTICAL PANEL, TYPE BACK TO BACK	80.000 EACH	.	.	.	.
0610	702525 CHANNELIZATION DEVICES TYPE DRUM	30.000 EACH	.	.	.	.
0620	702600 SEQUENTIAL ARROW DISPLAY	1.000 EACH	.	.	.	.
0625	704099 TEMPORARY STRIPING	72000.000 L.F.	.	.	.	.
0626	704754 RETROREFLECTIVE PERFORMED PATTERNED PAVEMENT STRIPE 4"	47500.000 L.F.	.	.	.	.
0640	704762 RETROREFLECTIVE PERFORMED PATTERNED PAVEMENT STRIPE 12"	4700.000 L.F.	.	.	.	.
0650	704764 RETROREFLECTIVE PERFORMED PATTERNED PAVEMENT STRIPE 24"	800.000 L.F.	.	.	.	.
0660	704767 RETROREFLECTIVE PERFORMED PATTERNED PAVEMENT MARKING RIGHT A RROW	10.000 EACH	.	.	.	.
0670	704768 RETROREFLECTIVE PERFORMED PATTERNED PAVEMENT MARKING LEFT AR ROW	29.000 EACH	.	.	.	.
0680	704769 RETROREFLECTIVE PERFORMED PATTERNED PAVEMENT MARKING THRU AR ROW	13.000 EACH	.	.	.	.



Revised January 13, 2011

August 3, 2010

August 27, 2004

**NEW MEXICO DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISIONS FOR**

**PRECAST CONCRETE BOX CULVERT
SECTION 511-F**

All applicable provisions of the New Mexico Department Of Transportation's Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

1. DESCRIPTION.

1.1 General. This work consists of designing, furnishing, and installing precast concrete box culverts. Culverts shall be designed for the worse load case based on the design data stated in the contract documents. The fabricator shall have relevant culvert construction experience, and shall submit a list of at least four (4) precast culvert structures successfully completed in the last five years and which are satisfactorily operational to date.

2. MATERIALS.

2.1 Culvert Sections. Precast concrete box culvert sections shall conform to ASTM C 1577 with the following modifications:

- A. Concrete shall also conform to Section 510 - Portland Cement Concrete or by approval conforming to Section 517.2.1 Design and Acceptability Requirements.
- B. Manufacture and Acceptance of sections shall be in accordance with Section 517 - Precast Concrete Structures and ASTM C 1577. Manufacturing facilities shall be Q-cast Certified by the American Concrete Pipe Association (ACPA)

2.2 Submittals. The contractor shall submit eight complete sets of working drawings as defined in and in accordance with Section 105.2 - Plans, Working Drawings And As-Built Plans, to the State Bridge Engineer for review and approval and one set to the Project Manager. Fifteen (15) working days shall be allowed for the initial review. In the event that subsequent reviews are required, ten (10) working days shall be allowed for each subsequent review. Fabrication shall not begin until after the shop drawings have been reviewed and approved.

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Custom designs for connections, end sections, or other structures not explicitly covered in ASTM C 1577, shall require submittal of 8 sets of working drawings and 2 sets of calculations stamped by a Professional Engineer licensed in the state of New Mexico to the State Bridge Engineer through the Project Manager for review and approval. Fifteen (15) working days shall be allowed for the initial review. In the event that subsequent reviews are required, ten (10) working days shall be allowed for each subsequent review. Fabrication shall not begin until after the shop drawings and calculations have been reviewed and approved.

2.3 Inspections. The Department reserves the right to inspect any and/or all production facilities in accordance with Section 106.2 – Supplier Plant Inspection.

2.4 Joint Material. Joint Material shall conform to ASTM C990.

2.5 Bedding Material. Bedding material shall conform to Section 304 - Base Course. RAP (reclaimed asphalt pavement) will not be allowed.

2.6 Select Backfill. Select backfill material shall conform to Section 206 – Excavation and Backfill For Culverts And Minor Structures, with a maximum size aggregate of 1 inch.

2.7 Grout. Grout shall conform to Section 520 - Non-Shrink Grout for Post-Tensioned Bridge Members.

2.8 Mortar. Mortar shall conform to Section 521 - Non-Shrink Mortar.

2.9 Flowable Fill. Flowable fill shall conform to Section 516 - Flowable fill.

3. CONSTRUCTION REQUIREMENTS.

3.1 General. The Contractor shall provide manufacturer's experienced technical representatives for a minimum of the first four (4) days of installation, or as requested by the Project Manager, to advise and provide technical assistance during construction. There shall be no cost to the Department for providing this service.

3.2 Excavation. Excavation shall comply with Section 206 – Excavation and Backfill for Culverts and Minor Structures. The Contractor shall be responsible for shoring, bracing, or other means of support to ensure the trench provides safe working conditions. Protection of adjacent traffic, soundwalls and/or other structures, pedestrians, and waterways shall be the sole responsibility of the Contractor. Large rocks, soft soil, or other unsuitable material in the subgrade shall be replaced with suitable surplus excavated material, base course, or other material as directed by the Project Manager. Subgrade shall be graded such that no abrupt vertical change over ¼" exists. Subgrade shall be compacted in accordance with Section 207 - Subgrade Preparation. Saturated

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subgrade or bedding will not be allowed. The contractor shall be responsible for safe and effective water diversion around the excavation.

3.3 Bedding Material Placement. Bedding material shall be placed a minimum of 6" deep below the culvert. Bedding material shall be installed in accordance with Section 304 - Base Course, including compaction and grade tolerances. Placing the structure shall not commence until the excavation and bedding are judged satisfactory by the Project Manager.

3.4 Pre-Cast Section Placement. Placement of the pre-cast sections shall begin on the downstream end. The grooved end of the box sections shall face upstream. The bottom of the sections shall be in full contact with the prepared bedding. Sections shall be placed true to line and grade and shall form a smooth continuous flow line. Sections shall not be shoved together by means of bulldozers or other equipment. Contractor shall submit method of placement to project manager for approval at least 30 days prior to commencement of construction. Line and grad grade shall be maintained as specified in the construction documents. Precast section tolerances shall be as specified in ASTM C1577

The interior surface of the box shall be kept smooth, clean, and free of any deleterious material. All annular spaces on the bottom interior surface shall be filled with joint sealing material in accordance with Section 452 –Sealing and Resealing Concrete Pavement Joints with the exception that the joint shall be filled flush to the top \pm 1/8 inch. Sealant meeting the requirements of ASTM C990 may also be used.

3.5 Backfill. Backfill shall be Select Backfill for a distance horizontally of 18 inches from each vertical surface of the culvert and vertically above the top of the culvert for a minimum of 1 foot or as shown in the plans. Backfill required outside of these areas shall be performed in accordance with Section 203.35, A. Roadbed Embankment. Placement of Select Backfill shall be in accordance with Section 206 - Excavation and Backfill for culverts and Minor Structures.

Hand compaction methods may be required for satisfactory compaction when the backfill is less than 2 feet above the culvert. Unless the culvert has been designed for less than 2 feet of cover, no heavy compaction equipment shall be operated on the structure until the top of the structure is covered to a compacted depth of 2 ft. Heavy equipment is defined to be larger than a D4 weighing in excess of 12 ton and having track pressure of 8 psi or greater.

In no case shall the equipment operating be in excess of the design load shown on the drawings.

Only mechanical tampers or approved compacting equipment shall be used to compact all backfill and embankment immediately adjacent to each side of the structure.

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The Contractor shall be responsible for obtaining the required compaction without damaging or moving the precast concrete culvert. Any section damaged shall be removed and replaced at no additional cost to the Department. Any section moved shall be returned to its correct position at no additional cost to the Department.

3.6 Lift Holes. Lift holes for precast concrete culverts will be permitted. No more than four (4) lift holes in the top of each section shall be permitted. The lift holes shall be located in such a way as to adequately, smoothly, and safely move the sections without damage to the section. The holes shall be neatly made and shall not interfere with the reinforcement in the section. After placement, the holes shall be filled completely with grout, mortar, mortar/grout plugs or plastic plugs.

3.7 Joint material. Joint material shall be installed in accordance with ASTM C990 and the manufacturer's recommendations. Unless specified in the project documents, J joints shall be sealed with a single layer of approved material. Width of the approved material shall be as recommended by the manufacturer. The joint material shall be placed end to end around the entire box joint to form a continuous seal. Joints shall be fully entered tongue and groove. After assembly, ensure that there is full contact and compression of the sealant for the entire perimeter of the joint. Squeeze out of sealant around the full interior and exterior perimeters of the box culvert is not required to be assured of an adequate seal.

The joint material shall be maintained at a temperature recommended by the manufacture[r] that will maintain pliability to provide a proper seal. When the temperature is below 40 [degrees] F., the joint shall be preheated by an alternate heat source prior to the placement of the mastic.

Any section found to be damaged, out of alignment, or otherwise unacceptable shall be removed and replaced by the contractor at no additional cost to the Department.

Multiple box installations shall have the gap between box lines filled solidly with compacted Earth fill, granular fill, grout or flowable fill to provide positive lateral bearing between the precast box sections.

4. METHOD OF MEASUREMENT.

4.1 Precast Box Culverts will be measured by the linear foot of installed box culvert.

Multiple precast box culverts will be measured by the linear foot along the flow line of each row of installed box culvert.

5. BASIS OF PAYMENT.

5.1 Precast Box Culverts will be paid for at the contract unit price per linear foot.

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Payment will be made under:

Pay Item	Pay Unit
Reinforced Concrete Box Culvert _____ ft (width of opening)	Linear Foot

Width of opening shall be from interior wall to interior wall of single culvert unit.

5.2 Work included in payment. The following work and items shall be considered as included in the payment for the main item and will not be measured or paid for separately:

- A. Design and preparation of working drawings, and other submittals;
- B. Equipment, materials, permits, and manpower for de-watering, shoring or rock excavation;
- C. Excavation;
- D. Subgrade preparation including installation and compaction;
- E. Bedding (Section 304) including installation and compaction;
- F. Select backfill (Section 206) including installation and compaction;
- G. Manufacture, Storage, and Delivery of precast concrete culvert sections;
- H. Installation of culvert sections;
- I. Joint material and installation of joints;
- J. Cleaning of interior surfaces including trimming of joint material;
- K. Mortar and Grout;
- L. Flowable Fill;
- M. Concrete Pavement Joint Filler;
- N. Manufacturer's technical support;
- O. All required testing;
- P. Any and all additional work and materials necessary to complete the structure

NEW MEXICO DEPARTMENT OF TRANSPORTATION

BID NUMBER: 3100010

PROJECT(S)

3100010

THE CONTRACTOR MUST BID ON 104 ITEMS, ENTER ALL UNIT PRICES,
MAKE ALL EXTENSIONS AND TOTAL THE BID.

CONTRACTOR _____

TOTAL AMOUNT BID \$ _____

PROJECT(S) : 3100010

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
SECTION 0001 ROADWAY						
0010	201000 CLEARING AND GRUBBING	LUMP	LUMP			.
0020	203000 UNCLASSIFIED EXCAVATION	4710.000 C.Y.		.		.
0030	207000 SUBGRADE PREPARATION	10416.000 S.Y.		.		.
0040	210000 EXCAVATION AND BACKFILL FOR MAJOR STRUCTURES	325.000 C.Y.		.		.
0050	302000 PROCESSING, PLACING AND COMPACTING EXISTING PAVEMENT	1210.000 S.Y.		.		.
0060	304000 BASE COURSE	3300.000 TON		.		.
0070	304160 BASE COURSE 6"	216.000 S.Y.		.		.
0080	403701 OPEN GRADED FRICTION COURSE COMPLETE	290.000 TON		.		.
0085	405000 DETOUR PAVEMENT CONSTRUCTION	1280.000 S.Y.		.		.
0090	407000 ASPHALT MATERIAL FOR TACK COAT	4.000 TON		.		.

PROJECT(S) : 3100010

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0100	408100 PRIME COAT MATERIAL	19.000 TON	.	.	.	.
0110	416000 MINOR PAVEMENT	216.000 S.Y.	.	.	.	.
0120	417000 MISCELLANEOUS PAVING	1000.000 S.Y.	.	.	.	.
0130	423282 HMA SP-III COMPLETE	2300.000 TON	.	.	.	.
0140	502036 DRILLED SHAFT FOUNDATION 36" DIAMETER	40.000 L.F.	.	.	.	.
0150	502042 DRILLED SHAFT FOUNDATION 42" DIAMETER	20.000 L.F.	.	.	.	.
0160	502048 DRILLED SHAFT FOUNDATION 48" DIAMETER	18.000 L.F.	.	.	.	.
0170	511000 STRUCTURAL CONCRETE, CLASS A	18.500 C.Y.	.	.	.	.
0180	511030 STRUCTURAL CONCRETE, CLASS AA	142.000 C.Y.	.	.	.	.
0190	511200 STRUCTURAL CONCRETE, CLASS A-4"	12.000 S.Y.	.	.	.	.
0195	511802 REINFORCED CONCRETE BOX CULVERT, 7. 5'-12.4'	50.000 L.F.	.	.	.	.

PROJECT(S) : 3100010

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0200	532100 PERMANENT ANTI-GRAFFITI PROTECTIVE COATING	300.000 S.F.	.	.	.	.
0210	540060 REINFORCING BARS GRADE 60	39070.000 LB	.	.	.	.
0220	570620 28" SX18" R STORM DRAIN CPA	245.000 L.F.	.	.	.	.
0230	601000 REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LUMP	LUMP	.	.	.
0240	601110 REMOVAL OF SURFACING	6960.000 S.Y.	.	.	.	.
0250	602000 RIPRAP CLASS A	70.000 C.Y.	.	.	.	.
0260	602060 RIPRAP CLASS G	40.000 S.Y.	.	.	.	.
0270	603262 COMPOSTED MULCH SOCKS	4800.000 L.F.	.	.	.	.
0280	603280 SWPPP MANAGEMENT	LUMP	LUMP	.	.	.
0290	606000 METAL BARRIER W-BEAM	100.000 L.F.	.	.	.	.