

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE <b>J</b>	PAGE OF PAGES <b>1</b>
2. AMENDMENT/MODIFICATION NO. <b>0001</b>		3. EFFECTIVE DATE <b>21-May-2004</b>	4. REQUISITION/PURCHASE REQ. NO. <b>W25PHS-4069-7673</b>		5. PROJECT NO.(If applicable)
6. ISSUED BY US ARMY ENGINEER DISTRICT, PHILADELPHIA CONTRACTING DIVISION WANAMAKER BUILDING 100 PENN SQUARE EAS PHILADELPHIA PA 19107-3390		CODE <b>W912BU</b>	7. ADMINISTERED BY (If other than item 6) US ARMY ENGINEER DISTRICT, PHILADELPHIA POC: SANDRA FLETCHER WANAMAKER BUILDING 100 PENN SQUARE EAST PHILADELPHIA PA 19107-3390		CODE <b>E5CTCSGF</b>
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)			X	9A. AMENDMENT OF SOLICITATION NO. <b>W912BU-04-B-0016</b>	
			X	9B. DATED (SEE ITEM 11) <b>30-Apr-2004</b>	
				10A. MOD. OF CONTRACT/ORDER NO.	
				10B. DATED (SEE ITEM 13)	
CODE		FACILITY CODE			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>					
<input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input checked="" type="checkbox"/> is not extended. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required) <b>RETAINING WALL REPLACEMENT, BASKET CREEK, TOWN OF HANCOCK, DELAWARE COUNTY, NEW YORK</b>					
<b>13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  <b>THIS AMENDMENT DOES NOT EXTEND THE 2 JUNE 2004 BID OPENING DATE AT 2:00 PM</b>					
<b>(CONTINUED ON NEXT PAGE)</b>					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print)			16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		
			TEL: _____ EMAIL: _____		
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)		15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  BY _____ (Signature of Contracting Officer)		16C. DATE SIGNED  <b>21-May-2004</b>

EXCEPTION TO SF 30  
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)  
Prescribed by GSA  
FAR (48 CFR) 53.243

**This page was intentionally left blank for duplex printing.**

14. DESCRIPTION OF AMENDMENT (continued)

a. Section 00010 SOLICITATION, OFFER AND AWARD:

- (1) BIDDING SCHEDULE: Delete pages 00010-3 and 00010-4 in their entirety and substitute revised pages of the same numbers, annotated Amendment No. 0001, attached hereto.

b. Section 00100 BIDDING SCHEDULE/INSTRUCTIONS TO BIDDERS:

- (1) Insert new Contract Clause 52.214-5000 as new page 00100-12, annotated Amendment No. 0001 attached hereto.

c. Section 00600 - Representations & Certifications:

- (1) Insert new Contract Clause 52.214-9 as new page 00600-14, annotated Amendment No. 0001 attached hereto.

d. TECHNICAL SPECIFICATIONS:

NOTE: The following sections were amended. For simplicity, the complete section is being reissued to enable complete substitution/insertion of the section in existing hard copies. To make detection of changes easier, only those pages with changes on them are annotated with "Amendment No. 0001" in the upper right corner. In addition, changes on a page are highlighted in ***bold italics***.

- (1) Project Table of Contents: Delete Project Table of Contents Page 1 in its entirety and substitute revised page of the same number, annotated Amendment No. 0001, attached hereto.
- (2) Section 01010 SUMMARY OF WORK: Delete Section 01010, pages 1 thru 2, in their entirety and substitute revised Section, annotated Amendment No. 0001, attached hereto.
- (3) Section 01025 MEASUREMENT AND PAYMENT: Delete Section 01025, pages 1 thru 16, in their entirety and substitute revised Section, annotated Amendment No. 0001, attached hereto.
- (4) Section 02220 DEMOLITION: Delete Section 02220, pages 1 thru 5, in their entirety and substitute revised Section, annotated Amendment No. 0001, attached hereto.
- (5) Section DPW SP-3 REMOVE AND SALVAGE STONE WALL: Delete Section DPW SP-3, pages 1 thru 2, in their entirety and substitute revised Section, annotated Amendment No. 0001, attached hereto.
- (6) Section DPW SP-4 DRILLING HOLES FOR SOLDIER PILES: Delete Section DPW SP-4, page 1, in its entirety and substitute revised Section, annotated Amendment No. 0001, attached hereto.
- (7) Section DPW SP-5 and SP-6 PROVIDE AND INSTALL SOLDIER PILES: Delete Section DPW SP-5 and 6, pages 1 and 2, in their entirety and substitute revised Section, annotated Amendment No. 0001, attached hereto.

14. DESCRIPTION OF AMENDMENT (continued)

e. CONTRACT DRAWINGS:

- (1) Make the following pen and ink change to Sheet 2 of 46: Delete the note under "Storage Lot(s) for Salvaged Stone" and insert the following wording: "The salvaged stones shall be transported to an abandoned gravel bank on O&W Road just east of South Main Street in Fishs Eddy, located about 15 miles from the project site. Refer to specification section DPW SP-3 for details." This change shall constitute Revision "a" to this drawing with a revision date of 21 May 2004.
- (2) Please make the following pen and ink change to Sheets 13 of 46, 14 of 46, 19 of 46, 20 of 46, 21 of 46, 22 of 46, 24 of 46, 25 of 46, 26 of 46, 27 of 46, 28 of 46, and 33 of 46: In any notes on drawing sheets where "HP13x60" appears, delete "HP13x60" and replace with "HP14x73". This change shall constitute Revision "a" to these drawings with a revision date of 21 May 2004.

f. Please indicate receipt of this amendment on Standard Form 1442 (SOLICITATION, OFFER, AND AWARD) as Amendment No. 0001. Failure to acknowledge all amendments may be cause for rejection of the bid.

BIDDING SCHEDULE

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
BASE BID ITEMS:					
1.	Traffic Control	1	Job	L.S.	\$
2.	Temporary Residence Access Bridge	1	Job	L.S.	\$
3.	Unclassified Excavation and Disposal	4500	C.Y.	\$	\$
4.	Embankment In Place				
	4A. Embankment In Place	502	C.Y.	\$	\$
	4B. On-Site Material	168	C.Y.	\$	\$
5.	Select Granular Fill	65	C.Y.	\$	\$
6.	Rock Excavation, Non-Explosive	210	C.Y.	\$	\$
7.	Geotextile	45,000	S.Y.	\$	\$
8.	Subbase Course	2,350	C.Y.	\$	\$
9.	Hot Mix Asphalt	1,290	Ton	\$	\$
10.	Cold Milling of Bituminous Concrete	2,520	S.Y.	\$	\$
11.	Concrete	152	C.Y.	\$	\$
12.	Epoxy Coated Bar Reinforcement	21,000	LBS	\$	\$
13.	Reinforced Concrete Pipe, Class III - 18"	45	L.F.	\$	\$
14.	Reinforced Concrete Pipe, Class III - 24"	110	L.F.	\$	\$
15.	Reinforced Concrete Pipe End Sections -18"	2	Each	\$	\$
16.	Catch Basins	115	L.F.	\$	\$
17.	Underdrain Filter, Type 1	530	TON	\$	\$
18.	Underdrain Tubing	1	Job	L.S.	\$
19.	Concrete Barrier	670	L.F.	\$	\$
20.	Permanent Seeding	35,000	S.F.	\$	\$
21.	Light Stone Fill	370	Ton	\$	\$

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
BASE BID ITEMS (Cont'd):					
22.	Concrete Gutter	145	S.Y.	\$	\$
23.	Pavement Markings	1	Job	L.S.	\$
24.	Frames and Grates	12	Each	\$	\$
25.	Remove and Salvage Frames and Grating	1	Job	L.S.	\$
26.	Remove Bridge	1	Job	L.S.	\$
27.	Remove and Salvage Stone Wall	4,620	C.Y.	\$	\$
28.	Drilling Holes for Soldier Piles	395	L.F.	\$	\$
<b>29.</b>	<b>Provide and Install</b>				
	<b>Soldier Piles - HP14X74</b>	<b>800</b>	<b>L.F.</b>	<b>\$</b>	<b>\$</b>
30.	Provide and Install Soldier Piles - HP14x89	300	L.F.	\$	\$
31.	Installing Panels - Wall	75	Each	\$	\$
32.	Construct Bridge	1	Job	L.S.	\$
33.	Guide Rail				
	33A. Wall Guide Railing	1	Job	L.S.	\$
	33B. Approach Guide Railing	1	Job	L.S.	\$
34.	Box Culvert at Station 14+35	1	Job	L.S.	\$
35.	Washed Cobbles (12" Max)	2,500	Ton	\$	\$
36.	Temporary Waterway Diversion System	1	Job	L.S.	\$
37.	Temporary Soil Erosion and Sediment Control	1	Job	L.S.	\$
38.	Drilling and Grouting Rebars	168	Each	\$	\$
TOTAL ESTIMATED BASE BID AMOUNT					\$
OPTION ITEM:					
1.	East Bank Detour Route	1	Job	L.S.	\$
TOTAL OPTION BID AMOUNT					\$

**52.214-5900 Apparent clerical mistakes.**

As prescribed at 14.406-2 insert the following statement in solicitation and contracts.

**ARITHMETIC DISCREPANCIES**

(a) For the purpose of initial evaluations of bids, the following will be utilized in the resolving arithmetic discrepancies found on the face of bidding schedule as submitted by the bidder:

- (1) Obviously misplaced decimal points will be corrected;
- (2) Discrepancy between unit price and extended price, the unit price will govern;
- (3) Apparent errors in extension of unit prices will be corrected;
- (4) Apparent errors in addition of lump-sum and extended prices will be corrected.

(b) For the purpose of bid evaluation, the government will proceed on the assumption that the bidder intends his bid to be evaluated on basis of the unit prices, the totals arrived at by resolution of arithmetic discrepancies as provided above and the bid will be so reflected on the abstract of bids.

(c) These correction procedures shall not be used to resolve any ambiguity concerning which bid is low.

(End of statement)

**This page was intentionally left blank for duplex printing.**

As prescribed in 19.1308(b), insert the following clause:

Notice of Price Evaluation preference for HUBZone Small Business Concerns (Jan 1999)

(a) *Definition.* "HUBZone small business concern," as used in this clause, means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.

(b) *Evaluation preference.* (1) Offers will be evaluated by adding a factor of 10 percent to the price of all offers, except--

(i) Offers from HUBZone small business concerns that have not waived the evaluation preference;

(ii) Otherwise successful offers from small business concerns;

(iii) Otherwise successful offers of eligible products under the Trade Agreements Act when the dollar threshold for application of the Act is exceeded (see 25.402 of the Federal Acquisition Regulation (FAR)); and

(iv) Otherwise successful offers where application of the factor would be inconsistent with a Memorandum of Understanding or other international agreement with a foreign government.

(2) The factor of 10 percent shall be applied on a line item basis or to any group of items on which award may be made. Other evaluation factors described in the solicitation shall be applied before application of the factor.

(3) A concern that is both a HUBZone small business concern and a small disadvantaged business concern will receive the benefit of both the HUBZone small business price evaluation preference and the small disadvantaged business price evaluation adjustment (see FAR clause 52.219-23). Each applicable price evaluation preference or adjustment shall be calculated independently against an offeror's base offer. These individual preference amounts shall be added together to arrive at the total evaluated price for that offer.

(c) *Waiver of evaluation preference.* A HUBZone small business concern may elect to waive the evaluation preference, in which case the factor will be added to its offer for evaluation purposes. The agreements in paragraph (d) of this clause do not apply if the offeror has waived the evaluation preference.

\* Offeror elects to waive the evaluation preference.

(d) *Agreement.* A HUBZone small business concern agrees that in the performance of the contract, in the case of a contract for--

(1) Services (except construction), at least 50 percent of the cost of personnel for contract performance will be spent for employees of the concern or employees of other HUBZone small business concerns;

(2) Supplies (other than procurement from a nonmanufacturer of such supplies), at least 50 percent of the cost of manufacturing, excluding the cost of materials, will be performed by the concern or other HUBZone small business concerns;

(3) General construction, at least 15 percent of the cost of the contract performance incurred for personnel will be spent on the concern's employees or the employees of other HUBZone small business concerns; or

(4) Construction by special trade contractors, at least 25 percent of the cost of the contract performance incurred for personnel will be spent on the concern's employees or the employees of other HUBZone small business concerns.

(e) A HUBZone joint venture agrees that in the performance of the contract, the applicable percentage specified in paragraph (d) of this clause will be performed by the HUBZone small business participant or participants.

(f) A HUBZone small business concern nonmanufacturer agrees to furnish in performing this contract only end items manufactured or produced by HUBZone small business manufacturer concerns. This paragraph does not apply in connection with construction or service contracts.

**This page was intentionally left blank for duplex printing.**

SPECIFICATIONS

RETAINING WALL REPLACEMENT  
BASKET CREEK

TOWN OF HANCOCK, DELAWARE COUNTY, NY

PROJECT TABLE OF CONTENTS

<u>SECTION NO.</u>	<u>TITLE</u>
DIVISION 01 - GENERAL REQUIREMENTS	
01010	SUMMARY OF WORK
01025	MEASUREMENT AND PAYMENT
01060	SAFETY
01312	QUALITY CONTROL SYSTEM (QCS)
01320	CONSTRUCTION PHOTOGRAPHY
01325	PROJECT SCHEDULE
01330	SUBMITTAL PROCEDURES
01331	SUBMITTALS
01355	ENVIRONMENTAL PROTECTION
01420	SOURCES FOR REFERENCE PUBLICATIONS
01450	CONTRACTOR QUALITY CONTROL
01500	TEMPORARY CONSTRUCTION
01550	TRAFFIC CONTROL
01570	TEMPORARY SOIL EROSION AND SEDIMENT CONTROL
01720	SURVEY REQUIREMENTS
01780	AS-BUILT DRAWINGS
DIVISION 02 - SITE WORK	
02220	DEMOLITION
02260	TEMPORARY WATERWAY DIVERSION SYSTEM
02373	GEOTEXTILE
DELAWARE COUNTY DEPARTMENT OF PUBLIC WORKS SPECIAL SPECIFICATIONS	
DPW SP-1	REMOVE AND SALVAGE FRAMES AND GRATES
DPW SP-2	REMOVE BRIDGE
DPW SP-3	REMOVE AND SALVAGE STONE WALL
DPW SP-4	DRILLING HOLES FOR SOLDIER PILES
<b>DPW SP-5</b>	<b>PROVIDE AND INSTALL SOLDIER PILES (HP14X73)</b>
DPW SP-6	PROVIDE AND INSTALL SOLDIER PILES (HP14X89)
DPW SP-7	INSTALL PANELS - WALL
DPW SP-8	INSTALL PANELS - BRIDGE
DPW SP-9	FURNISH AND INSTALL BRIDGE BEAMS
DPW SP-10	FURNISH AND INSTALL WALL GUIDE RAILING
DPW SP-11	FURNISH AND INSTALL BRIDGE RAILING
DPW SP-12	CONSTRUCT ABUTMENT
DPW SP-13	RECONSTRUCT CULVERT HEADWALL
DPW SP-14	BOX CULVERT
DPW SP-15	WASHED COBBLES (12" MAX.) AND TOP COURSE
DPW SP-16	SUBBASE
DPW SP-17	DRILLING AND GROUTING REBARS

**This page was intentionally left blank for duplex printing.**

SECTION 01010

SUMMARY OF WORK

PART 1 GENERAL

1.1 SCOPE OF SECTION

This section presents a general description of the work to be accomplished under this contract at County Route 28 along Basket Creek in Hanover, Delaware County, New York.

1.2 DESCRIPTION OF WORK

The major items of work to be performed under this contract include, but are not limited to, the following:

BASE BID ITEMS:

- a. Mill and remove pavement material.
- b. Install traffic control devices on County Route 28.
- c. Remove and salvage temporary steel frames and grates from stream at two locations.
- d. Install temporary water diversion system in creek bed and dewater in front of existing wall.
- e. Install temporary residential access bridge superstructure and abutments. (Bridge superstructure to be provided by Delaware County.)
- f. Remove existing bridge, 36 inch pipe culvert, headwall, roadbed, mortared parapet and dry-laid stone wall. Dry-laid stones shall be salvaged **and transported to a storage lot located fifteen (15) miles from the project location.**
- g. Install new concrete box culvert and rehabilitate existing stone headwall. Includes diverting the hillside seasonal stream at Station 14+35 during box culvert placement and installation.
- h. Control hillside seasonal stream and surface drainage during roadbed removal and subsequent work.
- i. Install post-and-panel wall, including drilling holes for posts in rock, installing posts, placing concrete for posts and panel foundations, retrieving and installing panels, placing concrete closure pours. (Panels will be provided by Delaware County.)
- j. Install roadbed, including leveling exposed bedrock in bottom of roadbed and installing underdrain system.
- k. Construct bridge, including bridge abutment footings, bridge beams and diaphragms, guide railing, retrieving and placing panels as bridge deck, completing connection of bridge beams and grouting of deck joint. (Panels will be provided by Delaware County.)

- l. Install concrete barrier and drainage swale along hillside and guide railing along new wall.
- m. Placement of roadway asphalt and striping.
- n. Finish grading as necessary, including around abutment and to bridge deck.
- o. Seeding and mulching.
- p. Removal of creek water diversion system, temporary residential access bridge.

OPTION BID ITEM:

- a. Place and remove a single-lane detour roadway along the east bank of the creek, including installation of a second temporary bridge superstructure (provided by Delaware County) and associated abutments, placement of temporary roadway materials, installation of appropriate traffic signals, and restoration of disturbed areas after removal.

1.3 RESTRICTIONS ON WORK

The placement of the temporary water diversion system in the stream shall be limited to between 15 June 2004 and 30 September 2004. The closure of County Route 28 and the east bank detour route shall be removed by 15 November 2004.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

SECTION 01025

MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 SUMMARY OF WORK

This section covers the methods and procedures which will be used to measure the Contractor's work and to provide payment. The general outline of the principal features of each item as listed does not in any way limit the responsibility of the bidder for making a thorough investigation of the drawings and specifications to determine the scope of work included in each bid item. Payment to the Contractor of the amounts based on the quantities of work as measured in accordance with the specified methods of measurement and the prices stipulated in the accepted bid, will constitute complete compensation for all work shown on the drawings, provided in the specifications or other contract documents, and all costs of accepting the general risks, liabilities and obligations expressed or implied. Payment under all items shall include, but not necessarily be limited to, compensation for furnishing all plant, supervision, labor, equipment, overhead, profit, materials and services, and performing all work required to accomplish and complete the work specified under each Item.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT)

Standard Specifications (January 2, 2002 Edition, including latest revisions) Standard Specifications, Construction and Materials

1.3 Lump Sum Items

Payment items for the work of this contract for which contract lump sum payments will be made are listed in the BIDDING SCHEDULE and described herein. The quantities of work performed under lump sum items will not be measured for payment, except for the purpose of determining reasonable interim payments. All costs in connection with these lump sum items shall be included in that item's lump sum price, including incidental items, such as those specified herein under paragraphs ITEMS INCLUDED IN THE PRICE OF ALL BID ITEMS and ITEMS INCIDENTAL TO SEVERAL BID ITEMS.

1.4 DEFINITIONS

1.4.1 Unit Price Items

Payment items for the work of this contract on which contract unit price payments will be made are listed in the BIDDING SCHEDULE and described herein. The quantities of work performed under unit price items will be measured for payment by the units specified in the BIDDING SCHEDULE and herein. All costs in connection with these unit price items shall be included in that item's unit price, including incidental items, such as

those specified herein under paragraphs ITEMS INCLUDED IN THE PRICE OF ALL BID ITEMS and ITEMS INCIDENTAL TO SEVERAL BID ITEMS.

#### 1.4.2 Items Included in the Price of All Bid Items

No separate measurement or payment will be made for items of work incidental to all bid items. All of the costs in connection with these items shall be included in the costs of all bid items. Those items are described herein.

#### 1.4 Items Incidental to Several Bid Items

No separate measurement or payment will be made for items of work incidental to several bid items. All of the costs in connection with these items shall be included in the unit price or lump sum price of the items of work to which they are incidental.

#### 1.5 BID ITEMS

##### 1.5.1 Bid Item No. 1 - Traffic Control

This lump sum price includes full compensation to the Contractor for providing all traffic control, including a traffic control manager, developing and obtaining approval of a traffic control plan by NYSDOT, and providing all traffic control devices, signage and similar services for detour and road closure.

##### 1.5.2 Bid Item No. 2 - Temporary Residence Access Bridge

This lump sum price includes all costs in connection with providing and installing the temporary residence access bridge superstructure, construction of the temporary abutments and removal of the temporary bridge superstructure, construction of the approach roadway to this bridge between Sta. PC=12+50 and Sta. PT=13+15.29, and any other costs considered to be incidental to this work. The cost of transporting the bridge superstructure back to the storage lot after removal shall be included in this price.

##### 1.5.3 Bid Item No. 3 - Unclassified Excavation and Disposal

This unit price item includes all costs in connection with unclassified excavation and disposal, as specified under Standard Specifications Item No. 203.02. Included in this unit price item is all excavation within right-of-way limits and removal of the mortared stone parapet portion of the wall, above the dry-laid portion, and removal of the non-stone, granular material portion of the roadbed. No deduction shall be made for any pipes, culverts, structures, or other obstructions, unless these are measured for payment under another contract item. Payment for identifying and stockpiling suitable material for reuse in roadway embankment will be paid for under Bid Item No. 4B - On Site Material. Unit of Measurement: Cubic Yard.

###### 1.5.3.1 Measurement

The unit of measurement for excavation will be the cubic yard, computed by the average end-area method from cross sections taken by a licensed Surveyor, before and after excavation. The licensed surveyor shall be currently licensed in the State of New York. The yardage paid for excavation will be the number of cubic yards of material, measured from existing grade (determined from "before excavation" surveys) to required

subgrade (determined from "after excavation" surveys). The excavation shall be to the lines and grades shown on the drawings. Overexcavation will not be paid for. The measurement will not include the yardage of any excavation performed prior to the taking of elevations and measurements of the existing grade. To verify the Contractor's calculated quantities, the Contractor shall provide cross-sections with the before and after survey data plotted on them.

1.5.4 Bid Item No. 4 - Embankment In Place

1.5.4.1 Bid Item No. 4A - Embankment In Place

This unit price item includes all costs in connection shall include the costs of furnishing all equipment, labor and materials as necessary to complete the embankment in place as specified under Standard Specifications Item No. 203.03. Included in this unit price item is proof rolling, re-proof rolling, corrective work disclosed by proof rolling and any delays caused by this corrective work. Unit of Measurement: Cubic Yard.

1.5.4.2 Bid Item No. 4B - On Site Material

For purposes of bidding, it shall be assumed that 25% of the onsite embankment fill excavated under Bid Item No. 3 shall meet the requirements of NYSDOT §203-1.08, Suitable Material. This unit price item includes all costs in connection shall include the costs of identifying and stockpiling the suitable material, furnishing all equipment and labor as necessary to complete the embankment in place using this stockpiled material as specified under Standard Specifications Item No. 203.03. Included in this unit price item is proof rolling, re-proof rolling, corrective work disclosed by proof rolling and any delays caused by this corrective work. Unit of Measurement: Cubic Yard.

1.5.4.3 Measurement

The unit of measurement for placement of embankment material will be the cubic yard, computed by the average end-area method from cross sections taken by a licensed Surveyor, before and after excavation. The licensed surveyor shall be currently licensed in the State of New York. The limit of embankment material to be measured includes only that material required to achieve the required subgrade elevations. The surveys shall be taken at 50-ft intervals, as specified in Section 01720 SURVEY REQUIREMENTS. No vertical tolerances will be permitted. The measurement will not include the yardage to fill unauthorized excavations, e.g. overexcavation, or the yardage of any material used for other than directed purposes. The measurement will not include the yardage of any filling performed prior to the taking of elevations and measurements of the existing grade. To verify the Contractor's calculated quantities, the Contractor shall provide cross-sections with the before and after survey data plotted on them.

1.5.5 Bid Item No. 5 - Select Granular Fill

This unit price item includes all costs in connection with select granular fill as necessary to provide the required fill around all drainage structures, as specified under Standard Specifications Item No. 203.07. This includes all testing required. This item excludes any select fill used in constructing the bridge abutment, which is covered under Bid Item No. 32. Unit of Measurement: Cubic Yard.

#### 1.5.6 Measurement

The unit of measurement for placement of fill will be the cubic yard, computed by the average end-area method from cross sections taken by a licensed Surveyor, before and after the filling operations. The licensed surveyor shall be currently licensed in the State of New York. The limit of fill to be measured includes only that fill required to achieve the required subgrade elevations. The surveys shall be taken at 50-ft intervals, as specified in Section 01720 SURVEY REQUIREMENTS. No vertical tolerances will be permitted. The measurement will include the filling of any excavation of unsatisfactory material, below grade, where ordered. The measurement will not include the yardage to fill unauthorized excavations, e.g. overexcavation, or the yardage of any material used for other than directed purposes. The measurement will not include the yardage of any filling performed prior to the taking of elevations and measurements of the existing grade. To verify the Contractor's calculated quantities, the Contractor shall provide cross-sections with the before and after survey data plotted on them.

#### 1.5.7 Bid Item No. 6 - Rock Excavation, Non-Explosive

This unit price item includes the cost of labor, materials and equipment required to satisfactorily remove rock, including the costs of excavation, and disposal of excavated material, as specified under Standard Specifications Item No. 206.03. The price shall also include the cost of furnishing all protective devices and all safety-related devices necessary to complete the work. Unit of Measurement: Cubic Yard.

##### 1.5.7.1 Measurement

The unit of measurement for rock excavation will be the cubic yard, computed by the average end-area method from cross sections taken by a licensed surveyor, before and after rock excavation. The yardage paid for excavation will be the number of cubic yards of material, measured from existing grade (determined from "before excavation" surveys) to required subgrade (determined from "after excavation" surveys). The excavation shall be to the lines and grades shown on the drawings. Overexcavation will not be paid for. The measurement will not include the yardage of any excavation performed prior to the taking of elevations and measurements of the existing grade. To verify the Contractor's calculated quantities, the Contractor shall provide cross-sections with the before and after survey data plotted on them.

#### 1.5.8 Bid Item No. 7 - Geotextile

This unit price item includes all costs in connection with furnishing all labor, equipment, and materials necessary to provide geotextile, as specified in Section 02373 GEOTEXTILE, except that geotextile used in construction of the bridge abutment will be paid for under Bid Item No. 32 "Construct Bridge". This item includes the cost of preparing the surface upon which the geotextile is to be placed. No payment will be made for replacement or repairs to material damaged during delivery, handling or placement. Unit of Measurement: Square Yard.

##### 1.5.8.1 Measurement

The unit of measurement for geotextile will be the square yard, computed by measuring the amount of surface area in yards of geotextile satisfactorily

placed. The quantity shall not include overlaps or waste.

#### 1.5.9 Bid Item No. 8 - Subbase Course

This unit price item includes the cost of furnishing all labor, material and equipment necessary to provide the subbase course, as specified under Standard Specifications Item No. 304.15. This includes the cost of adding water. No direct payment will be made for losses of material resulting from compaction, foundation settlement, erosion, or any other cause. No deductions will be made for the volumes occupied by manholes, catch basins and other such objects. Progress payments will be made after the subbase course has been properly placed and compacted. Payment will be made at the unit price bid for seventy-five (75) percent of the quantity. The balance of the quantity will be paid for after the final finishing to the required tolerance and just prior to the placing of the next course. This item excludes any subbase course used in constructing the bridge abutment, which is covered under Bid Item No. 32. Unit of Measurement: Cubic Yard.

##### 1.5.9.1 Measurement

The unit of measurement for placement of subbase course will be the cubic yard, computed by the average end-area method from cross sections taken by a licensed Surveyor, before and after the filling operations. The licensed surveyor shall be currently licensed in the State of New York. The limit of fill to be measured includes only that subbase required to achieve the required subgrade elevations. The surveys shall be taken at 50-ft intervals, as specified in Section 01720 SURVEY REQUIREMENTS. No vertical tolerances will be permitted. The measurement will not include the yardage to fill unauthorized excavations, e.g. overexcavation, or the yardage of any material used for other than directed purposes. The measurement will not include the yardage of any subbase placed prior to the taking of elevations and measurements of the existing grade. To verify the contractor's calculated quantities, the Contractor shall provide cross-sections with the before and after survey data plotted on them.

#### 1.5.10 Bid Item No. 9 - Hot Mix Asphalt

This unit price item includes the cost of all material, labor and equipment necessary to provide hot mix asphalt top course, binder and base course, as specified under Standard Specifications Item Nos. 402.1272, 402.1979 and 402.3779, respectively. This includes including any cleaning of foreign material from the pavement as a result of construction operations; all necessary repairs to highway components and/or adjacent property caused by construction operations; any necessary work to correct surface tolerances per §402-3.10; the scheduling and sequencing of work to conform with weather and seasonal limitations, and all temporary materials and work and/or repairs associated with paving operations outside the specified weather and seasonal requirements; and any removal and replacement of HMA. The unit price item also includes the cost of all necessary traffic control, equipment, labor and materials required in obtaining the pavement cores, filling all core holes with HMA, and compacting these core holes to the satisfaction of the Engineer. Unit of Measurement: Ton.

##### 1.5.10.1 Measurement

Method of measurement for hot mix asphalt shall be as specified in Standard Specifications Section 402-4.

1.5.11 Bid Item No. 10 - Cold Milling of Bituminous Concrete

This unit price item includes the cost of furnishing all labor and equipment necessary to complete the milling, as specified under Standard Specifications Item No. 490.10. This includes the removal and disposal of milled material, the removal and hauling of milled material to the Fishs Eddy Storage Lot (approximately 10 miles from the project site). Unit of Measurement: Square Yard.

1.5.11.1 Measurement

The unit of measurement for milling of bituminous concrete will be the square yard of pavement surface milled in accordance with the plans and this specification. In no case will a deduction in area be made for minor unmilled areas due to catch basins, manholes, transverse joints, or minor low areas in pavements from the measured surface area that has been milled. Minor unmilled or low areas are those areas of 10 square yards or less.

1.5.12 Bid Item No. 11 - Concrete

This unit price item includes the cost of furnishing all labor, materials and equipment necessary to complete the concrete work as specified under Standard Specifications Item Nos. 555.06 and 555.09, respectively, and as shown on the plans or called for in the specifications, except reinforcement will be paid for separately under its appropriate item. The unit price bid shall include the cost of any necessary formwork, furnishing and placing flexible water stops, sheet packing, pipe drains, water for wetting, joint materials, joint sealing compounds, joint fillers and concrete curing materials. Concrete defined as damaged or defective concrete in accordance with Section 502-3.14 of the Standard Specifications shall be repaired or replaced at the Contractor's expense. This item excludes any concrete used in constructing the bridge abutment, which is covered under Bid Item No. 32. Unit of Measurement: Cubic Yard.

1.5.12.1 Measurement

The unit of measurement for concrete will be the cubic yard, measured by computing the number of cubic yards placed within the lines of the structures shown on the plans. In computing the volume of concrete for payment, no deductions shall be made for the volume of joint material, embedded metal reinforcement, chamfers, or tops of piles.

1.5.13 Bid Item No. 12 - Epoxy Coated Bar Reinforcement

This unit price item includes the cost of all labor, materials and equipment necessary to complete the installation of all steel reinforcement as specified under Standard Specifications Item No. 556.0202. The unit price shall also include the cost of chairs, supports, fastenings, connections, and any splices not specifically shown on the plans. This item excludes any reinforcement used in constructing the bridge abutment, which is covered under Bid Item No. 32. Unit of Measurement: Pounds.

1.5.13.1 Measurement

The unit of measurement will be the pound, measured by computing the number of pounds of steel bars placed. The mass of bar reinforcing will be computed by utilizing the unit mass for each size bar.

1.5.14 Bid Item No. 13 - Reinforced Concrete Pipe, Class III - 18"

This unit price item includes the cost of furnishing all labor, materials and equipment necessary to complete the work, as specified under Standard Specifications Item No. 603.6018. The unit price shall also include those joints made with oakum, portland cement and mortar or poured caulking compounds. Excavation, granular fill and backfill, geotextile and adding water for compaction will be paid for separately under their appropriate items. Unit of Measurement: Linear Feet.

1.5.14.1 Measurement

The unit of measurement for concrete pipe will be the linear foot, measured by computing the number of linear feet of pipe, along the bottom centerline, furnished and incorporated into the work in accordance with the drawings.

1.5.15 Bid Item No. 14 - Reinforced Concrete Pipe, Class III - 24"

This unit price item includes the cost of furnishing all labor, materials and equipment necessary to complete the work, as specified under Standard Specifications Item No. 603.6024. The unit price shall also include those joints made with oakum, portland cement and mortar or poured caulking compounds. Excavation, granular fill and backfill, geotextile and adding water for compaction will be paid for separately under their appropriate items. Unit of Measurement: Linear Feet.

1.5.15.1 Measurement

The unit of measurement for concrete pipe will be the number of linear feet of pipe, measured along the bottom centerline, furnished and incorporated into the work in accordance with the drawings.

1.5.16 Bid Item No. 15 - Reinforced Concrete Pipe End Sections - 18"

This unit price item includes the cost of furnishing all labor, materials and equipment necessary to complete the work, as specified under Standard Specifications Item No. 603.6024. The unit price shall also include those joints made with oakum, portland cement and mortar or poured caulking compounds, and the cost of the restraining devices and their installation, required for concrete pipe. Excavation, granular fill and backfill, geotextile and adding water for compaction will be paid for separately under their appropriate items. Unit of Measurement: Each.

#.1 Measurement

The quantity to be measured under this work will be the number of reinforced concrete pipe end section units satisfactorily provided.

1.5.17 Bid Item No. 16 - Precast Catch Basins

This unit price item includes the cost of all labor, equipment and materials, necessary to satisfactorily place the precast catch basins in the locations shown and as specified under Standard Specifications Item No. 604.302192. Excavation, backfill and frames and grates will be paid for separately under their appropriate items. Unit of Measurement: Linear feet.

1.5.17.1 Measurement

The unit of measurement for the catch basins will be the linear foot, measured by computing number of linear feet of height of the catch basin, to the nearest tenth of a foot from the bottom of the base to the top of the masonry, including the top slab.

1.5.18 Bid Item No. 17 - Underdrain Filter, Type 1

This unit price item includes the cost of furnishing all labor materials and equipment necessary to complete the work as specified under Standard Specifications Item No. 605.0901. No direct payment will be made for any losses of material which may result from compaction, foundation settlement, erosion, or any other causes; the cost of such losses shall be included in the price bid for this item. Any contaminated underdrain filter material shall be replaced by the Contractor as directed by the Engineer at no cost to the Government. Excavation, granular fill and backfill will be paid for separately under their appropriate items. This item excludes any underdrain filter used in constructing the bridge abutment, which is covered under Bid Item No. 32. Unit of Measurement: Ton.

1.5.18.1 Measurement

The unit of measurement for the underdrain filter will be the ton. Quantity of underdrain filter will be measured from certified weigh tickets. Deductions from those quantities will be made for rejected material.

1.5.19 Bid Item No. 18 - Underdrain Tubing

This lump sum bid item includes all costs for all labor, materials and equipment necessary to complete the placement of 4" and 6" perforated corrugated polyethylene underdrain tubing, as specified under Standard Specifications Item Nos. 605.1501 and 605.1502, respectively. Excavation, granular fill and backfill will be paid for separately under their appropriate items. This item excludes any underdrain tubing used in constructing the bridge abutment, which is covered under Bid Item No. 32.

1.5.20 Bid Item No. 19 - Concrete Barrier

This unit price item includes the cost of all labor, equipment and material necessary to complete the placement of precast half section concrete barrier, including the end taper sections, as specified under Standard Specifications Item No. 606.3014 and to the limits shown on the contract drawings. Unit of Measurement: Linear foot.

1.5.20.1 Measurement

The quantity of concrete barrier measured for payment will be the number of linear feet placed in accordance with the plans and specifications, measured along the axis of the barrier and between its extreme outer limits.

1.5.21 Bid Item No. 20 - Permanent Seeding

This unit price item includes the cost of all labor, equipment, materials and incidentals, including water necessary to provide permanently seeded areas throughout, as specified under Section 01570 TEMPORARY SOIL EROSION AND SEDIMENT CONTROL. Topsoil required for permanent seeding shall be considered incidental to this bid item. Permanent seeding and placement of

topsoil and mulch in the area of the East Bank Detour Route (Option) are incidental to the Option Bid Item. Unit of Measurement: Square foot.

1.5.21.1 Measurement

Establishing turf will be measured as the number of square feet of surface area that have been satisfactorily seeded.

1.5.22 Bid Item No. 21 - Light Stone Fill

This unit price item includes the costs of furnishing all materials, labor and equipment necessary to satisfactorily complete the placement of light stone fill as specified under Standard Specifications 620.03, except that any necessary excavation will be paid for under its appropriate item. Unit of Measurement: Ton.

1.5.22.1 Measurement

The unit of measurement for the light stone fill will be the ton. Quantity of light stone fill will be measured from certified weigh tickets. Deductions from those quantities will be made for rejected material.

1.5.23 Bid Item No. 22 - Concrete Gutter

This unit price item includes the cost of furnishing all labor, materials and equipment necessary to place conventionally formed or machine formed concrete gutter, as specified under Standard Specifications Item No. 624.01. Item shall include all necessary excavation below the finished surface exclusive of any undercutting or excavation for special bedding materials. Unit of Measurement: Square yard.

1.5.23.1 Measurement

The quantity to be paid for under this work will be the number of square yards of exposed surface of concrete gutters placed in accordance with the plans.

1.5.24 Bid Item No. 23 - Pavement Markings

This lump sum bid item includes all costs for labor, materials, and equipment to satisfactorily place white and yellow pavement markings as specified under Standard Specifications Item No. 640.10 and 640.11, respectively. The lump sum price shall not include a cost for maintaining and protecting traffic during the painting operations.

1.5.25 Bid Item No. 24 - Frames and Grates

This unit price item for cast or prefabricated frame and grate units includes the cost of furnishing all labor, materials and equipment necessary to satisfactorily complete the work as specified under Standard Specifications Item No. 655.0401, including the cost of any field repair work for improperly fitting castings or to render the frame and grate non-rocking. Unit of Measurement: Each.

1.5.25.1 Measurement

The quantity to be measured under this work will be the number of grates and frame units satisfactorily provided.

1.5.26 Bid Item No. 25 - Remove and Salvage Temporary Frames and Grating

This lump sum bid item includes all costs in connection with removing two units of temporary steel frames and grating from the stream, as specified in Section DPW SP-1. This includes, but is not limited to, removal of the frames and grating, transportation to the storage location, and removal of the roadbed material from behind the wall prior to the removal of the frames.

1.5.27 Bid Item No. 26 - Remove Bridge

This lump sum bid item includes all costs in connection with removing the existing single-lane, single span bridge as specified in Section DPW SP-2. This includes, but is not limited to, removal of the bridge, removal of the existing east abutment and disposal of all materials.

1.5.28 Bid Item No. 27 - Remove and Salvage Stone Wall

This unit price item shall include all costs in connection with temporary shoring, removal of the stone wall and transporting the stones to the storage location as specified in Section DPW SP-3. This item is limited to the removal of the dry-laid stone portion of the wall and the costs for transporting the stones for stockpiling. **The hauling distance shall be fifteen (15) miles.** Unit of Measurement: Cubic Yard.

1.5.28.1 Measurement

Measurement of the stone will be based on sections and dimensions surveyed in the field, prior to removal of the wall, following removal of the roadbed materials and mortared stone parapet. The quantity to be paid for under this work will be the number of cubic yards of dry-laid stones based on field measurement of the wall in-place prior to removal. The depth of the wall into the embankment shall be measured for payment as the wall is removed and the volume computed.

1.5.29 Bid Item No. 28 - Drilling Holes for Soldier Piles

This unit price item shall include all costs in connection with drilling holes for soldier piles as specified in Section DPW SP-4, including the removal of spoil material from the site. Capture and treatment and discharge of water used in the drilling operation or encountered during drilling operations shall be covered under Bid Item No. 37 "Temporary Soil Erosion and Sediment Control. Discharge of water used in the drilling operation or encountered during drilling operations shall be covered under Bid Item No. 36 "Temporary Waterway Diversion System". Unit of Measurement: Linear foot.

1.5.29.1 Measurement

The quantity to be paid for under this work will be measured by the number of linear feet of holes, as determined from the center of a straightedge bearing on the top edge of opposite sides of the hole to the center of the bottom of the hole.

**1.5.30 Bid Item No. 29 - Provide and Install Soldier Piles - HP14x73**

**This unit price item shall include all costs in connection with providing and installing HP14x73 soldier piles as specified in Section DPW SP-5. The**

***cost of concrete to backfill the soldier piles shall be covered under its appropriate item. Unit of Measurement: Linear foot.***

1.5.30.1 Measurement

The quantity to be paid for under this work will be measured by the linear feet of piles provided, as measured from the bottom of the hole to the cutoff elevation.

1.5.31 Bid Item No. 30 - Provide and Install Soldier Piles - HP14x89

This unit price item shall include all costs in connection with providing and installing HP14x89 soldier piles as specified in Section DPW SP-6. The cost of concrete to backfill the soldier piles shall be covered under its appropriate item. Unit of Measurement: Linear foot.

1.5.31.1 Measurement

The quantity to be paid for under this work will be measured by the linear feet of piles provided, as measured from the bottom of the hole to the cutoff elevation.

1.5.32 Bid Item No. 31 - Installing Panels - Wall

This unit price item shall include, but not be limited to, all costs in connection with retrieving, loading, hauling and installing the panels, as specified in Section DPW SP-7. Other costs included in this item are: the costs of welding the panels in place and drilling weep holes. The panels are provided by Delaware County. The cost of the concrete footing beneath the panels shall be covered under its appropriate item. Unit of Measurement: Each.

1.5.32.1 Measurement

The quantity to be paid for under this work will be measured by each panel so installed.

1.5.33 Bid Item No. 32 - Construct Bridge

This lump sum item shall include, but not be limited to, the following:

a. Installing panels: all costs in connection with retrieving, loading, hauling and installing the panels, as specified in Section DPW SP-8. The costs shall include all connections, all costs in associated with the staged erection requirements, the costs of welding the panels in place and furnishing and placing concrete grout between the panels on the bridge. The panels are provided by Delaware County.

b. Installing bridge beams: all costs in connection with furnishing and installing the bridge beams and, diaphragms as specified in Section DPW SP-9.

c. Installing bridge railing: all costs in connection with furnishing the galvanized box beam railing and posts as specified in Section DPW SP-11.

d. Construct abutment: all costs in connection with construction of the bridge abutment, as specified in Section DPW SP-12. The price shall include the costs of the concrete, formwork, reinforcement, structural

fill, geotextile, subbase course, underdrain filter and underdrain tubing as necessary to construct the abutment, complete the connection of the bridge superstructure and all finish work related to the tie-in to the existing gravel drive. Any and all costs related to maintaining the adjacent utilities shall be included in this price.

Excavation and backfill will be paid for separately under their appropriate items.

1.5.34 Bid Item No. 33 - Guide Railing

1.5.34.1 Bid Item No. 33A - Wall Guide Railing

This lump sum item shall include all costs in connection with furnishing and installing the box beam guide railing system attached to the post-and-panel wall, as specified in Section DPW SP-10, including all connections.

1.5.34.2 Bid Item No. 33B - Approach Guide Railing

This lump sum item shall include all costs in connection with furnishing and installing the box beam guide railing system at the north and south approaches to the project, as specified in Standard Specifications Item Nos. 606.10, 606.100001, 606.1201 and 606.1202, including shop curved guide railing, end assemblies, heavy posts, transition posts, turnback splices, and all hardware. This item shall also include the removal and salvage of the existing single box beam guide railing between Sta. 19+32.12 and Sta. 21+39.77, including transporting the salvaged guide railing to the Fishs Eddy Storage Lot, located approximately 10 miles from the project location.

1.5.35 Bid Item No. 34 - Box Culvert at Station 14+35

This lump sum item shall include, but not be limited to, the following:

a. Reconstruct Culvert Headwall: all costs related to reconstructing the culvert headwall as specified in Section DPW SP-13, including, but not limited to, all work necessary to remove the existing wall, stockpiling and cleaning of stones, supply of replacement stones, keying into rock as required, disposal of unused portions of the existing wall and re-laying of the replacement wall.

b. Box Culvert: all costs in connection with furnishing and installing the precast concrete box culvert, complete, as specified in Section DPW SP-14, including, but not limited to, providing shop drawings for review and approval.

c. Incidental item: all costs for diverting the flow of the hillside seasonal stream from the west (Station 14+40) into Basket Creek to allow for box culvert installation and reconstruction of the culvert headwall, as specified in Section 01500 TEMPORARY CONSTRUCTION.

1.5.36 Bid Item No. 35 - Washed Cobbles (12" Max)

This unit price item shall include all costs in connection with providing and installing the washed cobbles, as specified in Section DPW SP-15. This includes the top course material specified. Unit of Measurement: Ton.

1.5.36.1 Measurement

The quantity to be paid for under this work will be measured by the ton of washed cobbles provided. Quantity of cobbles and top course material will be measured from certified weigh tickets.

1.5.37 Bid Item No. 36 - Temporary Waterway Diversion System

This lump sum price includes all costs in connection with providing and installing a temporary waterway diversion system in the stream, as specified in Section 02260 TEMPORARY WATERWAY DIVERSION SYSTEM. Included in the item shall be all costs associated with providing, maintaining, and removing the system, providing continuous pumping to dewater the area and preparation and submission of all submittals. This item shall encompass the discharge of treated or untreated water from any source, including, but not limited to: rain, stream waters passing into the work area beneath or around the diversion system, from uphill of the work area, or from subsurface waters encountered during the removal of the existing wall and road bed or during hole drilling in rock. This item shall also include the diversion of the western tributary at Sta. 14+40 during culvert replacement and the diversion of the drainage pipe flow at Sta. 20+55 during replacement work.

1.5.38 Bid Item No. 37 - Temporary Soil Erosion and Sediment Control

This lump sum item consists of the temporary soil erosion and sediment control measures required to be utilized throughout the contract period including filter fabric drop inlet protection, utilization of silt fence, turbidity curtain and construction of check dams and a stabilized construction entrance, as described in Section 01570 TEMPORARY SOIL EROSION AND SEDIMENT CONTROL. This item shall include the collection, containment, and treatment of waters encountered within the work area and all temporary seeding as required during the work for soil erosion and sediment control as designated on the drawings. Permanent seeding shall be covered under its appropriate item. Discharge, dewatering and pumping of treated and untreated water shall be covered under Bid Item No. 36, "Temporary Waterway Diversion System".

1.5.39 Drilling and Grouting Rebars

The unit price item for each bar reinforcement installed into rock shall include the cost of furnishing all labor, materials and equipment necessary to complete the work including the drilling and cleaning of holes for rebar stirrups, and anchoring the rebar into the rock using chemically curing anchoring materials, as specified in Section DPW SP-17. Unit of Measurement: Each.

1.5.39.1 Measurement

This work will be measured by the number of reinforcing bars installed.

1.5.40 Option Bid Item No. 1 - East Bank Detour Route

This lump sum price includes all costs in connection with providing the east bank detour route roadway, installing the temporary bridge superstructure at the north end of the project, construction of the temporary abutments, removal of the detour route roadway, removal of the temporary bridge superstructure, restoration of disturbed areas with topsoil, seeding and mulching and any other costs considered to be

incidental to this work, as specified in Section 01500 TEMPORARY CONSTRUCTION. The cost of transporting the bridge superstructure back to the storage lot after removal shall be included in this price. Removal and replacement or relocation of the shed and fence on the east bank shall be included in this price. Also included in this bid item are the lump sum costs for the traffic control for the east bank detour route, including signals and signage, as specified in Section 01550 TRAFFIC CONTROL. The portion of the detour route between Sta. PC=12+50 and Sta. PT=13+15.29 is excluded from the costs in this bid item and are covered under Bid Item No. 2, "Temporary Residence Access Bridge".

#### 1.6 ITEMS INCLUDED IN THE PRICE OF ALL BID ITEMS

##### 1.6.1 Safety, Health, and Emergency Response

This item consists of the preparing and implementing a Accident Prevention Plan, Activity Hazard Analysis, and instituting a safety program, as specified in Section 01060 SAFETY.

##### 1.6.2 Submittals

This item consists of preparing and updating the Submittal Register and preparing and making submittals as specified in Section 01330 SUBMITTAL PROCEDURES.

##### 1.6.3 Quality Control System

This item consists of performing all work required for the Contractor's use of the Government-furnished Construction Contractor Module of RMS, referred to as QCS, to record, maintain, and submit various information throughout the contract period, as specified in Section 01312 QUALITY CONTROL SYSTEM (QCS).

##### 1.6.4 Project Schedule

This item consists of preparing and updating a Project Schedule for this contract as specified in Section 01325 PROJECT SCHEDULE.

##### 1.6.5 Construction Photography

This item consists of providing color prints, digital photographs, and videos of the project prior to construction, during construction and post-construction, as well as plastic holders and binders, CDs and VHS tapes, as specified in Section 01320 CONSTRUCTION PHOTOGRAPHY.

##### 1.6.6 Environmental Protection

This item consists of compliance with all Federal, State, and local environmental laws and regulations and preparing a Soil Erosion and Sediment Control Plan, as specified in Section 01355 ENVIRONMENTAL PROTECTION.

##### 1.6.7 Quality Control

This item consists of preparing and updating a Quality Control Plan, conducting a quality control implementation meeting, employing a dedicated Quality Control Manager and quality control organization, conducting preparatory, initial, and follow-up meetings, conducting any sampling or

testing required, keeping records, and conducting final inspections, as specified in Section 01450 CONTRACTOR QUALITY CONTROL.

#### 1.6.8 Temporary Construction

This item consists of furnishing all labor, materials, plant and equipment, and performing all operations required for the construction of storage areas and service facilities needed for execution and completion of the work, including the provisions of a Contractor field office, a Government field office, project and safety signs at the work site, excluding the temporary residence access bridge superstructure as specified in Section 01500 TEMPORARY CONSTRUCTION.

#### 1.6.9 As-Built Drawings

This item consists of maintaining up-to-date as-built drawings and preparing final as-builts for approval, as specified in Section 01780 AS-BUILT DRAWINGS.

#### 1.6.10 Survey and Stakeout

This item consists of furnishing all labor, instruments, materials and equipment necessary to satisfactorily conduct surveys and perform survey data submittals as specified in Section 01720 SURVEY REQUIREMENTS.

### 1.7 ITEMS INCIDENTAL TO SEVERAL BID ITEMS

#### 1.7.1 Removals

All costs in connection with removals, demolition, clearing and grubbing, disposal of the debris, and clean-up, shall be included in the costs of those payment items for which the removals are incidental.

#### 1.7.2 Topsoil

All costs in connection with topsoil and placement of topsoil shall be included in the costs of those payment items for which the topsoil is incidental, including permanent seeding and restoration of the east bank detour route roadway area after removal and the soil erosion and sediment control work.

#### 1.7.3 Demolition

All costs in connection with demolition and salvage shall be included in the costs of those payment items for which the demolition is incidental. Namely, removal and salvage of the stone wall shall be covered under Section DPW SP-3 "REMOVAL AND SALVAGE OF STONE WALL", removal and salvage of the frames and grating shall be covered under DPW SP-1 "REMOVAL AND SALVAGE OF FRAMES AND GRATING", and the removal and salvage of the guardrail at the northeast end of the project shall be covered under DPW SP-10 "FURNISH AND INSTALL WALL GUIDE RAILING".

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

SECTION 02220

DEMOLITION

PART 1 GENERAL

1.1 SCOPE OF SECTION

The work specified in this section includes the requirement for demolition of existing items.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI A10.6 (1990) Safety Requirements for Demolition Operations

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (Nov. 2003) U.S. Army Corps of Engineers Safety and Health Requirements Manual

1.3 Submittals

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

NOTE: Any submittals classified as "SD-01 Preconstruction Submittals" require approval prior to mobilization to the contract work site. All other submittals, classified as "SD-02" through "SD-11," require approval prior to commencing the particular task to which the submittal is associated.

SD-01 Preconstruction Submittals

Qualifications; G,DO.

Name and qualifications of Contractor's proposed competent demolition person.

Demolition Plan; G,DO

A demolition plan, prepared by the prime Contractor for the specific work, describing in detail how the Contractor will implement the pertinent requirements of EM 385-1-1, Section 23 and Section 25 shall be submitted for approval prior to mobilization. The Contractor shall perform an engineering survey by a competent demolition person of the northwest road sloped embankment, roadway, roadbed, stone retaining wall, streambed, and private

residence property on the southeast of the stream bank, to determine the structural layout, the conditions of the above structures including the partially collapsed stone retaining wall, the possibility of unplanned collapse of any portion of the structure, and the existence of other potential or real demolition hazards. Written evidence that the required surveys have been performed shall be included in the Demolition Plan. The Contractor's method for providing safe access and temporary shoring of the partially collapsed stone retaining wall shall be identified in the plan and shall be in accordance with the requirements of EM 385-1-1, Section 23 and Section 25. Protective systems shall be designed by a Registered Professional Engineer, licensed in the State of New York.

#### 1.4 GENERAL REQUIREMENTS

Do not begin demolition until authorization is received from the Contracting Officer. The work includes demolition and removal of resulting rubbish and debris. Rubbish and debris shall be removed from Government property daily, unless otherwise directed, to avoid accumulation at the site. Materials that cannot be removed daily shall be stored in areas specified by the Contracting Officer. In the interest of occupational safety and health, the work shall be performed in accordance with EM 385-1-1, Section 23, Demolition, and other applicable Sections. In the interest of conservation, salvage shall be pursued to the maximum extent possible.

#### 1.5 REGULATORY AND SAFETY REQUIREMENTS

Comply with federal, state, and local hauling and disposal regulations. In addition to the requirements of the "Contract Clauses," safety requirements shall conform with ANSI A10.6.

#### 1.6 DUST AND DEBRIS CONTROL

Prevent the spread of dust and debris and avoid the creation of a nuisance or hazard in the surrounding area. Do not use water if it results in hazardous or objectionable conditions such as, but not limited to, ice, flooding, or pollution. Sweep pavements as often as necessary to control the spread of debris.

#### 1.7 PROTECTION

##### 1.7.1 Existing Work

Before beginning any demolition work, the Contractor shall survey the site and examine the drawings and specifications to determine the extent of the work. The Contractor shall take necessary precautions to avoid damage to existing items to remain in place, specifically the private residence property on the southeast side of the stream. Any damaged items shall be repaired or replaced at the Contractor's expense and subject to the approval by the Contracting Officer. The Contractor shall coordinate the work of this section with all other work and shall construct and maintain shoring, bracing, and supports as required. The Contractor shall ensure that structural elements are not overloaded and shall be responsible for increasing structural supports or adding new supports as may be required as a result of any cutting, removal, or demolition work performed under this contract. Do not overload structural elements. Provide new supports and reinforcement for existing construction weakened by demolition or removal work. Repairs, reinforcement, or structural replacement must have

Contracting Officer approval and shall be in accordance with the requirements of EM 385-1-1, Section 23, Section 25, and other applicable sections.

#### 1.7.2 Facilities

Walls that are designed and constructed to stand without lateral support or shoring, and are determined to be in stable condition, shall remain standing without additional bracing, shoring, or lateral support until demolished, unless directed otherwise by the Contracting Officer. The Contractor shall ensure that no elements determined to be unstable are left unsupported and shall be responsible for placing and securing bracing, shoring, or lateral supports as may be required as a result of any cutting, removal, or demolition work performed under this contract.

#### 1.7.3 Protection of Personnel

During the demolition work the Contractor shall continuously evaluate the condition of the structure being demolished and take immediate action to protect all personnel working in and around the demolition site. No area, section, or structural element will be allowed to be left standing without sufficient bracing, shoring, or lateral support to prevent collapse or failure while workmen remove debris or perform other work in the immediate area. The conditions at the work site require that special emphasis be placed on safe access and protection for employees working in or near the creek and stone retaining wall. The creek bottom is mostly bedrock covered with rocks and boulders of varying sizes and is very slippery. The existing stone retaining wall is in a state of partial collapse and temporary shoring shall be required for protection of employees working in the creek bed.

#### 1.8 BURNING

The use of burning at the project site for the disposal of refuse and debris will not be permitted.

#### 1.9 Environmental Protection

The work shall comply with the requirements of Section 01355 ENVIRONMENTAL PROTECTION.

#### 1.10 USE OF EXPLOSIVES

Use of explosives will not be permitted.

#### PART 2 PRODUCTS (Not Applicable)

#### PART 3 EXECUTION

##### 3.1 DEMOLITION WORK

Specifically, demolition of the frames and grates supporting the wall and the wall itself is required. Removal/relocation of the fence and shed on the private property shall be as specified in Section 01500 TEMPORARY CONSTRUCTION.

### 3.2 EXISTING ITEMS TO BE REMOVED

#### 3.2.1 General

Existing items indicated on the contract drawings shall be removed and properly disposed of offsite in accordance with all local, State, and Federal laws and regulations.

##### 3.2.1.1 Removal of Frames and Grates

Removal of the temporary frames and grates shall be as specified in DPW SP-1 "REMOVE AND SALVAGE FRAMES AND GRATING".

##### 3.2.1.2 Stone Wall Removal

Removal of the stone wall shall be as specified herein and in DPW SP-3 "REMOVE AND SALVAGE STONE WALL".

##### 3.2.1.3 Box Beam Guide Railing

The existing single box beam guide railing located at the north east end of the project (Sta. 19+32.12 to Sta. 21+39.77) shall be removed and salvaged as shown on the Contract Drawings.

#### 3.2.2 Utilities and Related Equipment

The Contractor shall utilize New York's One Call system to locate and markout utilities. In addition, the Contractor shall take reasonable effort to locate any additional underground utilities, not covered by this service. If existing utilities require removal, they shall be terminated in a manner conforming to the nationally recognized code covering the specific utility and approved by the Contracting Officer. When utility lines are encountered that are not indicated on the drawings, the Contracting Officer shall be notified prior to further work in that area. If utility lines are encountered that are not shown on drawings, contact the Contracting Officer for further instructions.

### 3.3 DISPOSITION OF MATERIAL

#### 3.3.1 Title to Materials

Except where specified in other sections, all materials and equipment removed, and not reused, shall become the property of the Contractor and shall be removed from Government property. Title to materials resulting from demolition, and materials and equipment to be removed, is vested in the Contractor upon approval by the Contracting Officer of the Contractor's demolition and removal procedures, and authorization by the Contracting Officer to begin demolition. The Government will not be responsible for the condition or loss of, or damage to, such property after contract award. Materials and equipment shall not be viewed by prospective purchasers or sold on the site.

##### 3.3.1.1 Frames and Grates

The temporary frames and grates shall be salvaged and transported to the Fishs Eddy Storage Lot as specified in DPW SP-1 "REMOVE AND SALVAGE FRAMES AND GRATING".

3.3.1.2 Stone Wall Removal

***The stones from the stone wall shall be salvaged and transported to the storage lot as specified in DPW SP-3 "REMOVE AND SALVAGE STONE WALL".***

3.3.1.3 Box Beam Guide Railing

Salvaged guide railing shall be transported to Fishs Eddy Storage Lot, located approximately 10 miles from the project location.

3.4 CLEANUP

Debris and rubbish shall be removed from excavations. Debris shall be removed and transported in a manner that prevents spillage on streets or adjacent areas. Local regulations regarding hauling and disposal shall apply.

-- End of Section --

**This page was intentionally left blank for duplex printing.**

**DPW SP-3 SPECIAL SPECIFICATION - REMOVE AND SALVAGE STONE WALL**

DESCRIPTION:

This work consists of removing the dry laid stones of the wall and transporting to storage site(s) identified by the Delaware County Department of Public Works. More than one site may be identified. The maximum hauling distance shall be assumed to be ten miles from the site. The stones shall become the property of others ***and shall be transported to an abandoned gravel bank on O&W Road just east of South Main Street in Fishs Eddy, located about 15 miles from the project site.*** ~~the Department of Public Works shall provide direction as to location of the storage site at the time of the removal of the wall.~~

The mortared stone parapet portion of the wall, above the dry-laid portion, shall be removed as Specified in Unclassified Excavation. The non-stone, granular material portion of the roadbed shall also be removed as Unclassified Excavation prior to removal of the stones of the wall. Only removal of the dry-laid stone portion of the wall shall be included under this item.

MATERIALS:

None

CONSTRUCTION DETAILS:

The Contractor shall remove the stones of the dry-laid wall with as little non-stone material as practical and transport them to the storage site.

The removal may be performed with bucket-type equipment, but shall attempt to minimize breakage of the larger stones to the extent practical. The stones may be dumped at the storage site.

The Contractor shall have surveyed dimensions obtained at a maximum of 25 ft sections for purposes of determining pay quantities.

***The Contractor shall place the salvaged stone away from the house that is adjacent to the abandoned gravel bank. There is approximately 1.5 acres of available area for the storage of the stone. After placement, the stone shall be pushed into a consolidated area if necessary to fit within the designated area.***

**This page was intentionally left blank for duplex printing.**

**DPW SP-4 SPECIAL SPECIFICATION - DRILLING HOLES FOR SOLDIER PILES**

DESCRIPTION:

This item consists of all work necessary to drill rock sockets for support of soldier piles.

MATERIALS:

None

CONSTRUCTION DETAILS:

Holes shall be drilled in the required locations shown on the contract drawings, with equipment capable of providing a smooth inside surface of the hole without causing new fractures in the surrounding rock, during the drilling operation. The minimum depth of the rock sockets shall be as indicated on the plans. Additional depth may be required, as directed by the Government following the Government's inspection of the hole. Should severely fractured, decomposed or weathered rock be encountered during drilling, the Contractor shall be required to over-excavate an additional depth of 2 feet. The maximum depth of overexcavation permitted shall not exceed 2 feet in depth. ***Blasting of rock is prohibited.***

All rock material loosened or otherwise disturbed by the drilling operations should be removed from the excavation prior to placement of the soldier pile and surrounding concrete (as specified in DPW SP-5 and SP-6 "PROVIDE AND INSTALL SOLDIER PILES"). All loose material from the drilling operation shall be treated as spoil and removed from the site. All water used as a part of the drilling operation or resulting from groundwater infiltration in the excavation shall be captured, removed, and treated appropriately, according to the requirements of the environmental permits for this project.

The Contractor must ensure that all soldier pile excavations are cleaned of drilling residue, loosened rock or debris, dewatered, and inspected and approved by the Government prior to installation of the soldier piles.

**This page was intentionally left blank for duplex printing.**

***DPW SP-5 SPECIAL SPEC. - PROVIDE AND INSTALL SOLDIER PILES (HP 14x73)***  
***DPW SP-6 SPECIAL SPEC. - PROVIDE AND INSTALL SOLDIER PILES (HP 14x89)***

DESCRIPTION:

This work consists of all work necessary to provide and install steel H piling of size and at locations indicated on the plans.

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT)

Standard Specifications (Jan. 2, 2002) Specifications for Construction and Materials

ASTM INTERNATIONAL (ASTM)

ASTM A572M (2003) Standard Specification for High-Strength Low-Alloy  
Columbium-Vanadium Structural Steel

MATERIALS:

Steel Piling - A572M Grade 345 - NYSDOT Standard Specifications Section 715-01.  
Concrete - materials complying with NYSDOT Standard Specifications Section 501, Portland Cement Concrete, General, having a mix designed to provide a compression strength of 4000 psi within 30 days of placement.

SUBMITTALS:

The Contractor shall submit a work plan and design drawings and calculations for a temporary structure to support and maintain proper alignment of each soldier pile until the foundation concrete has been allowed to cure for the time period specified in Table 555-1 of the Standard Specifications.

CONSTRUCTION DETAILS:

The Contractor must ensure that all soldier pile excavations are cleaned of drilling residue, loosened rock or debris, dewatered, and inspected and approved by the Government prior to installation of the soldier piles as specified in DPW SP-4 DRILLING HOLES FOR SOLDIER PILES.

The piles shall be properly aligned in the holes and, in accordance with the contract drawings, battered backwards towards the road at 2% in a section view; the piles should be vertical in the elevation view. The concrete shall be continually placed by methods that ensure against segregation and dislodging of the

excavation walls. Concrete shall completely fill the shaft. Concrete shall be vibrated to ensure the concrete has completely surrounded the H-pile and has filled the circumference of the excavation. The placement of the piles in the excavation should permit a minimum of 6 inches of concrete on all sides of the soldier pile once it is installed in the hole and properly aligned.

Each pile must be supported in such a manner that will support the batter and vertical alignment of the pile until the concrete has been allowed to cure for the time period indicated in Table 555-1 of the Standard Specifications.

Upon completion of the wall, the piles shall be cut off flush at the theoretical elevation indicated on the plans. The top edges of the pile shall be ground after cutting to provide a minimum of a one-eighth inch chamfer.